



U.S. Department
of Transportation

**Federal Aviation
Administration**

Approved Airport Lighting Equipment

M-494.4

AC: 150/5345-IG
Date: 1/4/82

Advisory Circular

DATE 1/4/82

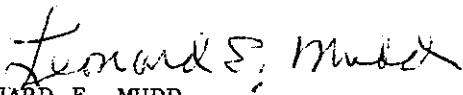
ADVISORY CIRCULAR



DEPARTMENT OF TRANSPORTATION
Federal Aviation Administration
Washington, D.C.

Subject: APPROVED AIRPORT LIGHTING EQUIPMENT

1. PURPOSE. This advisory circular contains a listing of manufacturers qualified to supply airport lighting equipment for projects funded under Federal airport assistance programs.
2. CANCELLATION. This advisory circular cancels AC 150/5345-1F, Approved Airport Lighting Equipment, dated January 16, 1981.
3. PRINCIPAL CHANGES. Several additions and deletions have been made to the lists of qualified manufacturers. Also, Appendix 2, Qualification Procedures, has been added.
4. REQUESTS FOR INFORMATION. Further information concerning qualification approval may be obtained from the Federal Aviation Administration, Office of Airport Standards, Attention: AAS-200, Washington, D.C. 20591, telephone (202) 426-3824.


LEONARD E. MUDD
Director, Office of Airport Standards

Initiated by: AAS-200

CONTENTS

	Page
L-801 - Beacons (AC 150/5345-12B)	1
L-807 - Wind Cones (AC 150/5345-27A)	1
L-808 - Wind Tees (AC 150/5345-36)	2
L-810 - Lights, Obstruction (AC 150/5345-43C)	2
L-821 - Panel, Airport Lighting Control (AC 150/5345-3C)	2
L-823 - Connectors, Cable (AC 150/5345-26B)	3
L-824 - Cables, Underground Electrical (AC 150/5345-7D).....	4
L-828 - Regulators, Constant Current (AC 150/5345-10D)	6
L-830 - Transformers, Isolation, 60 Hz (AC 150/5345-47)	10
L-831 - Transformers, Isolation, 50 Hz (AC 150/5345-47)	10
L-841 - Cabinet, Auxiliary Relay (AC 150/5345-13)	11
L-847 - Switch, Circuit Selector (AC 150/5345-5)	11
L-849 - Lights, Runway End Identification (AC 150/5340-14B and AC 150/5345-51)	12
L-850 - Lights, Runway, In-pavement (AC 150/5345-46)	13
L-851 - Visual Approach Slope Indicators (AC 150/5345-28C)	13
L-852 - Lights, Taxiway, In-pavement (AC 150/5345-46)	14
L-853 - Markers, Retroreflective (AC 150/5345-39B)	14
L-854 - Radio Controls (AC 150/5345-49)	15
L-856 - Lights, Obstruction, High Intensity (AC 150/5345-43C)	15
L-857 - Light Bases, Cover Plates, and Junction Boxes (AC 150/5345-42A)	15
L-858 - Signs, Taxiway Guidance (AC 150/5345-44B)	16
L-859 - Lights, Flashing, Omnidirectional (AC 150/5345-14B and AC 150/5345-51)	16
L-860 - Lights, Runway & Taxiway Edge, Low Intensity (AC 150/5340-48)	17

CONTENTS (cont'd)

	Page
L-861 - Lights, Runway & Taxiway Edge, Medium Intensity (AC 150/5345-48)	18
L-862 - Lights, Runway Edge, High Intensity (AC 150/5345-48)	19
L-863 - Lights, Runway Edge, Portable (AC 150/5345-50)	20
L-864 - Lights, Runway End Identification, Portable (AC 150/5345-50)	20
L-866 - Lights, Obstruction, Medium Intensity (AC 150/5345-43C)	20
L-867 - Light Base, Non-load bearing (AC 150/5345-42B)	21
L-868 - Light Base, Load Bearing (AC 150/5345-42B)	21
L-869 - Box, Junction, Load Bearing (AC 150-5345-42B)	21
Light Structure, Lightweight Approach (AC 150/5345-45)	22
Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights (MALSR) (FAA-E-2325)	22
Lamp Descriptions	23
Appendix 1. Address List of Equipment Manufacturers (3 pages)	1
Appendix 2. Qualification Procedures (4 pages)	1

Notice to Users

The catalog numbers listed in this document are not intended for use in ordering equipment. Users should consult equipment manufacturer's catalogs or literature for complete ordering information, especially for equipment having optional features.

The number in parentheses () after the manufacturer's catalog number indicates the specific lamp type approved for use in the equipment. A description of each lamp is given on page 23.

L-801 - Beacons
(AC 150/5345-12B)

Manufacturer	Manufacturer's catalog number		
	Type L-801A	Type L-801S	Type L-801H
ADB-ALNACO, Inc.	RB-6-500 RB-6-750		
National Airport Equipment Co.	N-1000A N-1000A4	N-1000S	

L-807 - Wind Cones
(AC 150/5345-27A)

Manufacturer	Manufacturer's catalog number			
	With obstruction & external lights	Without obstruction & external lights	With obstruction lights only	With external lights only
Eight-foot wind cones				
ADB-ALNACO, Inc.	WC-8L	WC-8UL		
Crouse-Hinds Co.	44481B	44482A	44483B	44484A
Hughey & Phillips, Inc.	WC818A	WC818D	WC818C	WC818B
Sterner Lighting Systems, Inc.	WC08-FM	WC08-00	WC08-M0	WC08-F0
Westinghouse Airport Systems Co.	1372750 W0701	1372753 W0704	1372752 W0703	1372751 W0702
Twelve-foot wind cones				
ADB-ALNACO, Inc.	WC-12L	WC-12UL		
Crouse-Hinds Co.	48310A	48311A	48312A	48313A
Hughey & Phillips, Inc	WC1236A	WC1236D	WC1236C	WC1236B
Sterner Lighting Systems, Inc.	WC12-FM	WC12-00	WC12-M0	WC12-F0
Westinghouse Airport Systems Co.	W0741	W0744	W0743	W0742

L-808 - Wind Tees
(AC 150/5345-36)

Manufacturer	Manufacturer's catalog number
ADB-ALNACO, Inc.	WT-2012-30G
Crouse-Hinds Co.	43339-C

L-810 - Lights, Obstruction
(AC 150/5345-43C)

Manufacturer	Manufacturer's catalog number	
	Single unit	Double unit
Godfrey Engineering Co.	GEA-60-1,-3 (11) GEA-60-2,-4 (30) (31) (32)	GEA-61-1,-3 (11) GEA-61-2,-4 (30) (31) (32)
Hubbell, Harvey, Inc.	BYMB-3600-AHQ (33)	BYMB-36002-AHQ (33)

L-821 - Panel, Airport Lighting Control
(AC 150/5345-3C)

Manufacturer	Manufacturer's catalog number
ADB-ALNACO, Inc.	L-821 - all types, classes, styles
Airport Lighting Control Co.	L-821 - type 1, all classes, styles 1 & 2
Associated Engineering Co.	201-204 (821 series) - all types, classes, styles
Universe, Inc.	821-1 - type 1, all classes, style 1

L-823 - Connectors, Cable
(AC 150/5345-26B)

Manufacturer	Type *	Manufacturer's catalog number
Amerace Corp. (Elastimold Div.)	Figures 1a 1b 1c 6a 6b 11 14a/14b 14c/14d 14e/14f 15a/15b 15c/15d 15e/15f 15g/15h	Cm Cf Cr Em Ef 1839-Ei 54-F4-F4 54-E4-E4 54-D4-D4 Style 90P Style 90R Style 91P Style 91R
CCS Hatfield Wire & Cable Co.	Figures 1a 1c 6a 6b 11	MC-27 FC-17 MC-26 FC-19 FC-18
Joy Manufacturing Co.	Figures 1a 1b 1c 6a 6b 11 14a/14b 14c/14d 14e/14f	X8405M X8405F 2G125F1A X8077M X8077F X8077MF X8077-257 X8077-301 X8077-387
Molded Electric Products Corp.	Figures 1a 1b	10518 10519
Pacific Electriccord Co.	Figures 1a 1b 1c 6a 6b	823-1a 823-1b 823-1c 823-6a 823-6b
Westinghouse Airport Systems Co.	Figure 1a	1567650

* Markings are in accordance with the former specifications as contained in AC 150/5345/26A. Markings in accordance with the current specifications in AC 150/5345-26B will be required after July 1, 1982.

L-824 - Cable, Underground Electrical
(AC 150/5345-7D)

Manufacturer	Conductors		Type	Rating (volts)	Manufacturer's identification marking
	S	M			
American Insulated Wire Co.	X	X	A	600	Type USE Style RR
	X		A(s)	5000	Type USE Style RR
	X	X	C	600	Amerlink X
	X		C(s)	5000	Amerlink X
Anaconda Co., The	X		A	600	Durasheath EP
	X		A	5000	Durasheath EP
	X		C	600	Durasheath XLP
Carol Cable Co.	X		C	600	Colene USE
	X		C	5000	L-824-C
CCS Hatfield Wire & Cable Co.	X		C(s)	5000	Hatfield Permalene XP
	X		C	600	Permalene XP
Cerro Wire & Cable Co.	X		A	600	L-824 Type A
	X		A	5000	L-824 Type B
	X		C	600	L-824 Type C
	X		C	5000	L-824 Type C
Collyer Insulated Wire Co.	X	X	C	600	XLP
	X	X	C(s)	5000	XLP
Essex Group	X		C	600	L-824 Type C
	X		C	5000	L-824 Type C
General Electric Co.	X		C	600	Vulkene
		X	C	600	Vulkene Flamenol
	X		C	5000	Vulkene
		X	C(s)	5000	Vulkene Flamenol
Hendrix Wire & Cable Corp.	X		C	600	FAA L-824 Type C
	X		C	5000	FAA L-824 Type C
ITT Royal Electric Division	X		C	5000	FAA L-824 Type C
Kerite Co., The	X	X	A	5000	Kerite HTK
North American Phillips Corp.	X		C	5000	Dravulteen (XLPE)

L-824 - Cable, Underground Electrical
(AC 150/5345-7D)
(cont'd)

Manufacturer	Conductors		Type	Rating (volts)	Manufacturer's identification marking
	S	M			
Pirelli Cable Corp.	X		B	600	EPR/PVC & EPR/N
	X		B	5000	EPR unshielded
	X	X	B	5000	EPR
	X		C	600	Type USE, RHH, RHW
		X	C	600	XLPE
	X		C	5000	XLPE unshielded
	X	X	C	5000	XLPE
Reynolds Metals Co.	X	X	Cs	5000	XLP
Rome Cable Co.	X		C	600	Rome XLP
		X	C	600	Rome XHHW Cond.
	X	X	Cs	5000	Rome XLP
Southwire Co.	X		C	600	FAA L-824 Type C
	X		C	5000	FAA L-824 Type C
Triangle PWC, Inc.	X		C	600	
		X	C	5000	

NOTES:

- (1) Conductors of 5000-volt cable may be either 7-strand or 19-strand.
- (2) In the column "Conductors," s indicates single conductor and m indicates multiple conductor.
- (3) All cables are nonshielded except s after the "Type" letter indicates both nonshielded and shielded.

L-828 - Regulators, Constant Current
 (AC 150/5345-10C)
 (cont'd)

Manufacturer	Rating			Bright- ness steps	Primary switch	Manufacturer's catalog number	
	KW	Out Amps	In Volts				
Crouse-Hinds Co. (Air-cooled regulators)	4	6.6	208	3	Yes	31000-4-3-1	
	4	6.6	220	3	Yes	31000-4-3-2	
	4	6.6	240	3	Yes	31000-4-3-3	
	4	6.6	480	3	Yes	31000-4-3-4	
	4	6.6	208	5	Yes	31000-4-5-1	
	4	6.6	220	5	Yes	31000-4-5-2	
	4	6.6	240	5	Yes	31000-4-5-3	
	4	6.6	480	5	Yes	31000-4-5-4	
	7½	6.6	208	3	Yes	31000-7.5-3-1	
	7½	6.6	220	3	Yes	31000-7.5-3-2	
	7½	6.6	240	3	Yes	31000-7.5-3-3	
	7½	6.6	480	3	Yes	31000-7.5-3-4	
	7½	6.6	208	5	Yes	31000-7.5-5-1	
	7½	6.6	220	5	Yes	31000-7.5-5-2	
	7½	6.6	240	5	Yes	31000-7.5-5-3	
	7½	6.6	480	5	Yes	31000-7.5-5-4	
	10	6.6	208	3	Yes	31000-10-3-1	
	10	6.6	220	3	Yes	31000-10-3-2	
	10	6.6	240	3	Yes	31000-10-3-3	
	10	6.6	480	3	Yes	31000-10-3-4	
	10	6.6	208	5	Yes	31000-10-5-1	
	10	6.6	220	5	Yes	31000-10-5-2	
	10	6.6	240	5	Yes	31000-10-5-3	
	10	6.6	480	5	Yes	31000-10-5-4	
	(Oil-cooled regulators)	10	6.6	208	5	Yes	31060-10-P-1
		10	6.6	208	5	No	31060-10-E-1
		10	6.6	220	5	Yes	31060-10-P-2
		10	6.6	220	5	No	31060-10-E-2
10		6.6	240	5	Yes	31060-10-P-3	
10		6.6	240	5	No	31060-10-E-3	
10		6.6	480	5	Yes	31060-10-P-4	
10		6.6	480	5	No	31060-10-E-4	
10		6.6	2400	5	Yes	31060-10-P-11	
10		6.6	2400	5	No	31060-10-E-11	
15		6.6	208	5	Yes	31060-15-P-1	
15		6.6	208	5	No	31060-15-E-1	
15		6.6	220	5	Yes	31060-15-P-2	
15		6.6	220	5	No	31060-15-E-2	
15		6.6	240	5	Yes	31060-15-P-3	
15		6.6	240	5	No	31060-15-E-3	

L-828 - Regulators, Constant Current
 (AC 150/5345-10C)
 (cont'd)

Manufacturer	Rating			Bright- ness steps	Primary switch	Manufacturer's catalog number
	KW	Out Amps	In Volts			
Crouse-Hinds Co. (Oil-cooled regulators)	15	6.6	480	5	Yes	31060-15-P-4
	15	6.6	480	5	No	31060-15-E-4
	15	6.6	2400	5	Yes	31060-15-P-11
	15	6.6	2400	5	No	31060-15-E-11
	20	6.6	208	5	Yes	31060-20-P-1
	20	6.6	208	5	No	31060-20-E-1
	20	6.6	220	5	Yes	31060-20-P-2
	20	6.6	220	5	No	31060-20-E-2
	20	6.6	240	5	Yes	31060-20-P-3
	20	6.6	240	5	No	31060-20-E-3
	20	6.6	480	5	Yes	31060-20-P-4
	20	6.6	480	5	No	31060-20-E-4
	20	6.6	2400	5	Yes	31060-20-P-11
	20	6.6	2400	5	No	31060-20-E-11
	20	6.6	4160	5	Yes	31060-20-P-12
	20	6.6	4160	5	No	31060-20-E-12
	20	20	208	5	Yes	31060-21-P-1
	20	20	208	5	No	31060-21-E-1
	20	20	220	5	Yes	31060-21-P-2
	20	20	220	5	No	31060-21-E-2
	20	20	240	5	Yes	31060-21-P-3
	20	20	240	5	No	31060-21-E-3
	20	20	480	5	Yes	31060-21-P-4
	20	20	480	5	No	31060-21-E-4
	20	20	2400	5	Yes	31060-21-P-11
	20	20	2400	5	No	31060-21-E-11
	20	20	4160	5	Yes	31060-21-P-12
	20	20	4160	5	No	31060-21-E-12
	30	6.6	208	5	Yes	31060-30-P-1
	30	6.6	208	5	No	31060-30-E-1
	30	6.6	220	5	Yes	31060-30-P-2
	30	6.6	220	5	No	31060-30-E-2
	30	6.6	240	5	Yes	31060-30-P-3
	30	6.6	240	5	No	31060-30-E-3
	30	6.6	480	5	Yes	31060-30-P-4
	30	6.6	480	5	No	31060-30-E-4
	30	6.6	2400	5	Yes	31060-30-P-11
	30	6.6	2400	5	No	31060-30-E-11
	30	6.6	4160	5	Yes	31060-30-P-12
	30	6.6	4160	5	No	31060-30-E-12

L-828 - Regulators, Constant Current
 (AC 150/5345-10C)
 (cont'd)

Manufacturer	Rating			Brightness steps	Primary switch	Manufacturer's catalog number
	KW	Out Amps	In Volts			
Crouse-Hinds Co. (Oil-cooled regulators)	30	20	208	5	Yes	31060-31-P-1
	30	20	208	5	No	31060-31-E-1
	30	20	220	5	Yes	31060-31-P-2
	30	20	220	5	No	31060-31-E-2
	30	20	240	5	Yes	31060-31-P-3
	30	20	240	5	No	31060-31-E-3
	30	20	480	5	Yes	31060-31-P-4
	30	20	480	5	No	31060-31-E-4
	30	20	2400	5	Yes	31060-31-P-11
	30	20	2400	5	No	31060-31-E-11
	30	20	4160	5	Yes	31060-31-P-12
	30	20	4160	5	No	31060-31-E-12
	50	20	480	5	Yes	31060-50-P-4
	50	20	480	5	No	31060-20-E-4
	50	20	2400	5	Yes	31060-50-P-11
	50	20	2400	5	No	31060-50-E-11
	50	20	4160	5	Yes	31060-50-P-12
	50	20	4160	5	No	31060-50-E-12
	70	20	480	5	Yes	31060-70-P-4
	70	20	480	5	No	31060-70-E-4
	70	20	2400	5	Yes	31060-70-P-11
	70	20	2400	5	No	31060-70-E-11
	70	20	4160	5	Yes	31060-70-P-12
	70	20	4160	5	No	31060-70-E-12
Hevi-Duty Electric Co. (Air-cooled regulators) (Oil-cooled regulators)	4	6.6	240	3	Yes	6436300T00
	7½	6.6	240	3	Yes	6439300T00
	10	6.6	240	3	Yes	6441300T00
	10	6.6	2400	3	Yes	6441301T00
	10	6.6	240	5	Yes	6441302T00
	10	6.6	2400	5	Yes	6441303T00
	15	6.6	240	3	Yes	6442300T00
	15	6.6	2400	3	Yes	6442301T00
	15	6.6	240	5	Yes	6442302T00
	15	6.6	2400	5	Yes	6442303T00

L-828 - Regulators, Constant Current
 (AC 150/5345-10C)
 (cont'd)

Manufacturer	Rating			Brightness steps	Primary switch	Manufacturer's catalog number
	KW	Out Amps	In Volts			
Hevi-Duty Electric Co. (Oil-cooled regulators)	20	6.6	240	5	Yes	6443300T00
	20	20	240	5	Yes	6443301T00
	20	6.6	2400	5	Yes	6443302T00
	20	20	2400	5	Yes	6443303T00
	30	6.6	2400	5	Yes	6446301T00
	30	20	2400	5	Yes	6446300T00
	50	20	2400	5	Yes	6447300T00
	70	20	2400	5	Yes	6449300T00

L-830 - Isolation Transformers, 60 Hz
(AC 150/5345-47)

L-830			Manufacturer's catalog number	
Type	Watts	Amperes Pri/Sec	Amerace Corp. (Elastimold Div.)	Crouse-Hinds Co.
L-830-1	30/45	6.6/6.6	TA 045666-01	33001
L-830-2	30/45	20/6.6	TA 045266-01	
L-830-3	65	6.6/6.6	TA 065666-01	33003
L-830-4	100	6.6/6.6	TA 100666-01	33004
L-830-5	100	20/6.6	TA 100266-01	33005
L-830-6	200	6.6/6.6	TA 200666-01	33006
L-830-7	200	20/6.6	TA 200266-01	33007
L-830-8	300	6.6/20	TA 300626-01	33008
L-830-9	300	20/20	TA 300226-01	33009
L-830-10	300	6.6/6.6	TA 300666-01	33010
L-830-11	300	20/6.6	TA 300266-01	
L-830-12	500	6.6/20	TA 500626-01	
L-830-13	500	20/20	TA 500226-01	33013

L-831 - Isolation Transformers, 50 Hz
(AC 150/5345-47)

L-831			Manufacturer's catalog number	
Type	Watts	Amperes Pri/Sec	Amerace Corp. (Elastimold Div.)	Crouse-Hinds Co.
L-831-1	30/45	6.6/6.6	TA 045666-01	33001
L-831-2	30/45	20/6.6	TA 045266-01	
L-831-3	65	6.6/6.6	TA 065666-01	
L-831-4	100	6.6/6.6	TA 100666-01	
L-831-5	100	20/6.6		
L-831-6	200	6.6/6.6	TA 200665-01	33006
L-831-7	200	20/6.6	TA 200265-01	
L-831-8	300	6.6/20		
L-831-9	300	20/20	TA 300225-01	
L-831-10	300	6.6/6.6	TA 300665-01	
L-831-11	300	20/6.6		
L-831-12	500	6.6/20		
L-831-13	500	20/20		

L-841 - Cabinet, Auxiliary Relay
(AC 150/5345-13)

Manufacturer	Manufacturer's catalog number
Airport Lighting Control Co.	6300 6301 6302 6303
Associated Engineering Co.	714-841
Crouse-Hinds Co.	51503
Hughey & Phillips, Inc.	RC41

L-847 - Switch, Circuit Selector
(AC 150/5345-5)

Manufacturer	Manufacturer's catalog number
Crouse-Hinds Co.	30800

L-849 - Lights, Runway End Identification
(AC 150/5340-14B) *

Manufacturer	Manufacturer's catalog number	
	Lights	Adapter unit
Godfrey Engineering Co.	GE 3826-003 GEA 20-100	AU5584
Hughey & Phillips, Inc.	FL 34	
Multi-Electric Manufacturing, Inc.	551325	

* Approvals to this advisory circular, which is superseded by AC 150/5345-51, expire March 1, 1982.

L-849 - Lights, Runway End Identification
(AC 150/5345-51)

Manufacturer	Style	Manufacturer's catalog number
Flash Technology Corporation	F	FTS-412
	F	FTS-422

L-850 - Lights, Runway, In-pavement
(AC 150/5345-46)

Manufacturer	Type	Manufacturer's catalog number
ADB-ALNACO, Inc.	L-850A L-850B	44DO464 (29) 44DO469 (34)
Crouse-Hinds Co.	L-850A L-850B L-850C L-850D L-850E	20065, 20075 (35) 20355, 20360 (34) (40) 20370, 20365 (34) (40) 20250, 20255 (34) 20260, 20265 (34) 20480 (34)
Multi-Electric Manufacturing, Inc.	L-850C	2950-300 (38)
Westinghouse Airport Systems Co.	L-850A L-850B	W-850A (37) (21) (28) (39) W-850B, W-850BT, (37) (21) (28) (39)

L-851 - Visual Approach Slope Indicators
(AC 150/5345-28C)

Manufacturer	Manufacturer's catalog number		
	Lamp housing	Adapter unit	Aiming and calibration bar
ADB-ALNACO, Inc.	44DO107A 44DO154A 44DO152A	44CO120A	44A0156A
Crouse-Hinds Co.	25950-A 26000-A 29950-AV	26005-A 26600	26041-A
Hughey & Phillips, Inc.	VA382, VA384 VA38ST, VA38S	VA38A2 VA38A4	VACB6114
Multi-Electric Manufacturing, Inc.	5556C	5562C	5559

L-852 - Lights, Taxiway, In-pavement
(AC 150/5345-46)

Manufacturer	Class	Type	Manufacturer's catalog number
ADB-ALNACO, Inc.	N	I	44DO422 (41)
	W	I	44DO422 (42)
	N	II	44DO423 (41)
	W	II	44DO423 (42)
	N	III	44DO424 (41)
	W	III	44DO424 (42)
	N	IV	44DO452 (41)
	W	IV	44DO452 (42)
Crouse-Hinds Co.	N	I	19506, 19508 (43)
	W	I	19510, 19512 (44)
	N	II	19505, 19507 (43)
	W	II	19509, 19511 (44)
	N	III	19515, 19516 (43)
	W	III	19513, 19514 (44)
	N	IV	19840, 19850 (43)
	W	IV	19845, 19855 (44)
Westinghouse Airport Systems, Co.	N	I	W-8521 (45) (46) (47)
	W	I	W-8521 (46) (47)
	N	II	W-8522 (45) (46) (47)
	W	II	W-8522 (46) (47)
	N	III	W-8523 (45) (46) (47)
	W	III	W-8523 (46) (47)
	N	IV	W-8524 (45) (46) (47)
	W	IV	W-8524 (47) (47)

L-853 - Markers, Retroreflective
(AC 150/5345-39B)

Manufacturer	Manufacturer's catalog number	
	Centerline marker	Elevated marker
Amerace Corporation (Signal Products Division)	88 series	
National Airport Equipment Co.		RM series
Safe-Way Sign Co.		1A series
Unipar, Inc.		EVA series
Valley Illuminators, Inc.		AR-100 series

L-854 - Radio Controls
(AC 150/5345-49)

Manufacturer	Type	Manufacturer's catalog number
ADB-ALNACO, Inc.	I	RL-854
Control Industries, Inc.	I	RC-1T5A

L-856 - Lights, Obstruction, High Intensity
(AC 150/5345-43C)

Manufacturer	System	Manufacturer's catalog number
Flash Technology Corporation	A	FTB-205A-1
	B	FTB-205B-1

L-857 - Light Bases, Cover Plates, and Junction Boxes
(AC 150/5345-42A) *

Manufacturer	Item	Type	Manufacturer's catalog number
Gardner, T. J., Co.	Light base	I	1224S, 1624S, PVC
		II	1224-2-S, 1524-2-S
			1024-2-S
	Cover plate	II	10-2-CP-S
		II	12-2-CP-S
		II	15-2-CP-S
Jaquith Industries, Inc.	Light base	I	2124, 6324
		II	1534, 2424, 3524
	Cover plate	I	1000-6, 2005-6
			3000-12, 4000-12, 5000-12
	Junction box		7500

* Approvals to this advisory circular, which has been superseded by AC 150/5345-42B, expire March 1, 1982.

L-858 - Signs, Taxiway Guidance
(AC 150/5345-44B)

Manufacturer	Type	Size	Style	Class	Manufacturer's catalog number
Crouse-Hinds Co.	1,2	1	1,2	1	60,000 series
	1,2	1	1,2	1	62,000 series
Standard Signs, Inc.	3	1,2,3			858 UL series
	1,2	3	1,2	1,2	858 IL series
	1,2	1,2,3	1,2	1	858 XL series
	1,2	1	1,2	2	858 XL series
Westinghouse Airport Systems Co.	3	1,2,3			W858 UL series
	1,2	1,2	1,2	1,2	W858 XLK series
	1,2	1,2,3	1,2	1,2	W858 ILK series

L-859 - Lights, Flashing, Omnidirectional
(AC 150/5340-14B) *

Manufacturer	Manufacturer's catalog number	Remarks
Unitron International Systems, Inc.	VV1800	For use as ODALS <u>1/</u>
	VV1900	For use as REILS <u>2/</u>

* Approvals to this advisory circular, which is superseded by AC 150/5345-51, expire March 1, 1982

L-859 - Lights, Flashing, Omnidirectional
(AC 150/5345-51)

Manufacturer	Manufacturer's catalog number	Remarks
Flash Technology Corp.	FTS-427	Style F For use as ODALS <u>1/</u>

- 1/ Omnidirectional approach lighting system
2/ Runway end identification lights

1/4/82

AC 150/5345-1G

L-860 - Lights, Runway & Taxiway Edge, Low Intensity
(AC 150/5345-48)

Manufacturer	Manufacturer's catalog number		
	Type L-860	Type L-860E	Type L-860T
Crouse-Hinds Co.	40650 (1)	40650-GR,RG (1)	
Manairco, Inc.	2100 (2) (3) (4) 2125 (6)	2250 (5)	2300 (6)
National Airport Equipment Co.	L-500C (7) L-510C (8)	L-500R/G (8) L-510R/G (9)	L-500B (8) L-510B (9)

L-861 - Lights, Runway & Taxiway Edge, Medium Intensity
(AC 150/5345-48)

18

Manufacturer	Manufacturer's catalog number			
	Type L-861	Type L-861E	Type L-861SE	Type L-
ADB-ALNACO, Inc.	L-861-1,-3 (10)	L-861-1,-3 (11)		L-861T-1,-
	L-861-2,-4 (12)			L-861T-2,-
				(14)
	RWL-MIL (10)	RWL-MIE (11)		TWL-MIL (1
Airport Lighting Co.	MRL-216,217 (10)	MRL-216,217 (11)		MRL-216 (1

L-862 - Lights, Runway Edge, High Intensity
(AC 150/5345-48)

Manufacturer	Manufacturer's catalog number	
	Edge	Threshold/end
ADB-ALNACO, Inc.	L-862 (22)	L-862 (23)
Airport Lighting Co.	HRL-213 (22)	HRL-213 (23)
Crouse-Hinds Co.	48369 (22) 40722 (24)	48371 (23) 40722 (25) (28)
Godfrey Engineering Co.	GEA-10 (24) (26) GEA-15 (22)	GEA-10 (21) GEA-15 (23)
Hughey & Phillips, Inc.	HL-62 (22)	HL-62 (23)
Multi-Electric Manufacturing, Inc.	6383, 6293 (22)	6287, 6297 (23)
National Airport Equipment Co.	H-900 (22)	H-900 (23)
Westinghouse Airport Systems Co.	E6700 (22) W-862 (24) (26)	E6700 (23) W-862 (21) (27)

L-863 - Lights, Runway Edge, Portable
(AC 150/5345-50)

Manufacturer	Manufacturer's catalog number

L-864 - Lights, Runway End Identification, Portable
(AC 150/5345-50)

Manufacturer	Manufacturer's catalog number

L-866 - Lights, Obstruction, Medium Intensity
(AC 150/5345-43C)

Manufacturer	Manufacturer's catalog number	
	White lights	Red lights
Flash Technology Corporation	FTB-301 FTB-317 FTB-119 FTB-119-2	

L-867 - Light Base, Non-load Bearing
(AC 150/5345-42B)

Manufacturer	Manufacturer's catalog number

L-868 - Light Base, Load Bearing
(AC 150/5345-42B)

Manufacturer	Manufacturer's catalog number

L-869 - Box, Junction, Load Bearing
(AC 150/5345-42B)

Manufacturer	Manufacturer's catalog number

Light Structure, Lightweight
(AC 150/5345-45)

Manufacturer	Type	Class	Manufacturer's catalog number
Jaquith Industries, Inc.	1	A	SM/A

Medium Intensity Approach Lighting System
with Runway Alignment Indicator Lights (MALSR)
(FAA-E-2325)

Manufacturer	Component	Manufacturer's catalog number
Crouse-Hinds Co.	Remote optical head	41001
	Flasher power supply	41007
	Control cabinet	41010
	Power transformer	41005
	Junction box	41006
	PAR-38 lampholder	41003
	Lampholder aiming device	41020
	Optical head aiming device	41002
Multi-Electric Manufacturing, Inc.	Flashing light	FA-9425/1
	Power panel	FA-9425/2
	Control panel	FA-9426/1
	Transformer	FA-9426/2
	PAR-38 lampholder	FA-9426/3

LAMP DESCRIPTIONS

Lamp	Designation	Watts	Volts	Amps	Lamp manufacturer
(1)	8301	40	120		Yorkville Industries
(2)	15T6	15	120		General Electric, Westinghouse
(3)	15T7C	15	120		Westinghouse
(4)	15FC/AV	15	120		General Electric
(5)	40C9½C/ST	40	120		Sylvania
(6)	25FC	25	120		General Electric, Sylvania
(7)	15A15/CL	15	120		Sylvania
(8)	25A19/GR/CL	25	120		Sylvania
(9)	40A21/GR/CL	40	120		Sylvania
(10)	6.6A/T10/1P	30		6.6	General Electric, Sylvania, West.
(11)	6.6A/T10P	45		6.6	General Electric, Sylvania, West.
(12)	40A/TS	40	120		General Electric, Sylvania, West.
(13)	25A/CL	25	120		General Electric, Sylvania
(14)	40T10P	40	120		General Electric, Sylvania
(15)	100T10/2P	100	120		General Electric
(16)	Q100T4/CL	100		6.6	General Electric
(17)	C-H 40732	45		6.6	Crouse-Hinds
(18)	C-H 40737	30		6.6	Crouse-Hinds
(19)	HG132PPF	30		6.6	Sylvania
(20)	HG112PPF	45		6.6	Sylvania
(21)	EWR	150		6.6	General Electric
(22)	6.6A/T14/2P	204		6.6	General Electric, Sylvania, West.
(23)	6.6A/T14/3P	210		6.6	General Electric
(24)	Q115T4/CL	115		6.6	General Electric
(25)	C-H 40925	175		6.6	Crouse Hinds
(26)	6.6ATSQ/CL2	115		6.6	Sylvania
(27)	6.6A2PPF	150		6.6	Sylvania
(28)	Q200T4/CL	200		6.6	General Electric
(29)	48A0042	200		6.6	ADB
(30)	A21TS	100	120		General Electric
(31)	A21TS	107	120		General Electric
(32)	A21TS	116	120		General Electric
(33)	7-AP-3	100	130		General Electric
(34)	Q6.6AT4/DCR	200		6.6	General Electric
(35)	20041-1	200		6.6	Crouse-Hinds
(36)	EVV	115		6.6	General Electric
(37)	T5Q/CL/2PPF	115		6.6	Sylvania
(38)	Q20A PAR 56/2	300		6.6	General Electric
(39)	L-86159	200		6.6	Westinghouse
(40)	20496	115		6.6	Crouse-Hinds
(41)	48A0039	45		6.6	ADB
(42)	48A0040	65		6.6	ADB
(43)	19464	45		6.6	Crouse-Hinds
(44)	19484	65		6.6	Crouse-Hinds
(45)	L-6154	30		6.6	Westinghouse
(46)	L-6155	45		6.6	Westinghouse
(47)	L-6156	65		6.6	Westinghouse

APPENDIX 1. ADDRESS LIST OF EQUIPMENT MANUFACTURERS

ADB-ALNACO, Inc.
977 Gahanna Parkway
P.O. Box 30829
Columbus, Ohio 43230
(614) 861-1304

Airport Lighting Co.
1923 Central Avenue
Hot Springs, Arkansas 71901
(501) 624-5488

Airport Lighting Control Co.
Terminal Building, Herndon Airport
Orlando, Florida 32303
(305) 896-0461

Amerace Corporation
Elastimold Division
P.O. Box 503
Hackettstown, New Jersey 07840
(201) 852-1122

Amerace Corporation
Signal Products Division
7542 North Natchez Street
Niles, Illinois 60648
(312) 647-7717

American Insulated Wire Co.
Central Avenue and Freeman Street
Pawtucket, Rhode Island 02862
(401) 726-0700

Anaconda Co., The
East 8th Street
Marion, Indiana 46952
(317) 664-2321

Associated Engineering Co.
10801 Kaylor Street
Los Alamitos, California 90720
(213) 598-8515

Carol Cable Co.
1900 North Fifth Avenue
River Grove, Illinois 60171
(312) 456-4000

Cerro Wire and Cable Co.
5500 Maspeth Avenue
Maspeth, New York 11378
(212) 386-5500

Collyer Insulated Wire Co.
100 Higginson Avenue
Lincoln, Rhode Island 02865
(401) 723-7800

CCS Hatfield Wire and Cable Co.
12 Commerce Drive
Cranford, New Jersey 07016
(201) 272-3850

Control Industries
409 Lafayette Avenue
Urbana, Ohio 43078
(513) 653-7694

Crouse-Hinds Co.
Wolf & 7th North Street
Syracuse, New York 13201
(315) 477-8244

Essex Group
Power Conductor Division
2601 South Adams Street
Marion, Indiana 46952
(317) 664-6211

Flash Technology Corporation
55 Lake Street
Nashua, New Hampshire 03060
(603) 883-0521

Gardner, T.J., Co.
4363 Malcom Avenue
Oakland, California 94605
(415) 483-0686

General Electric Co.
1285 Boston Avenue
Bridgeport, Connecticut 06602
(203) 334-1012

Godfrey Engineering Co.
2949 East 5th Avenue
Columbus, Ohio 43219
(614) 252-6232

Hendrix Wire & Cable Corporation
Milford, New Hampshire 03055
(603) 673-2040

Hevi-Duty Electric Co.
Box 268
Goldsboro, North Carolina 27530
(919) 734-8900

Hubbell, Harvey, Inc.
Electric Way
Christiansburg, Virginia 24073
(703) 382-6111

Hughey & Phillips, Inc.
3050 North California Street
Burbank, California 91505
(213) 859-1104

ITT Royal Electric Division
95 Grand Avenue
Pawtucket, Rhode Island 02862
(401) 722-8600

Jaquith Industries, Inc.
Syracuse, New York 13205
(315) 478-5701

Joy Manufacturing Co.
La Grange Division
Route 4, Box 156
La Grange, North Carolina 28551
(919) 566-3014

Kerite Co., The
49 Day Street
Seymour, Connecticut 06483
(203) 888-2591

Manairco, Inc.
Box 111
Mansfield, Ohio 44901
(419) 524-2121

Molded Electric Products Corporation
464 Pratt Street
Meriden, Connecticut 06450
(203) 235-4424

Multi-Electric Manufacturing, Inc.
4223-43 West Lake Street
Chicago, Illinois 60624
(312) 722-4157

National Airport Equipment Co.
5910 Wayzata Boulevard
Minneapolis, Minnesota 55416
(612) 545-4157

North American Phillips Corporation
100 E. 42nd Street
New York, New York 10017
(212) 697-3600

Pacific Electricord Co.
747 W. Redondo Beach Boulevard
Box 10
Gardena, California 90247
(213) 381-2577

Pirelli Cable Corporation
800 Rahway Avenue
Union, New Jersey 07083
(201) 687-0250

Reynolds Metal Co.
Richmond, Virginia 23261
(804) 281-2000

Rome Cable Co.
421 Ridge Street
Rome, New York 13440
(315) 337-3000

Safe-Way Sign Co.
Box 324
West Springfield, Massachusetts 01089
(413) 737-6991

Southwire Company
Carrollton, Georgia 30117
(404) 832-6311

1/4/82

AC 150/5345-1G
Appendix 1

Standard Signs, Inc.
3190 East 65th Street
Cleveland, Ohio 44127
(216) 341-5611

Sterner Lighting Systems, Inc.
1 Park Lane
Winsted, Minnesota 55395
(612) 485-2141

Triangle PWC, Inc.
Box 711
New Brunswick, New Jersey 08903
(201) 745-5500

Unipar, Inc.
Box 1056
State College, Pennsylvania 16801
(814) 238-6481

Unitron International Systems, Inc.
Box 1105
Norcross, Georgia 30091
(404) 923-3185

Universe, Inc.
Box 495
1107 W. Chestnut Street
Bloomington, Illinois 61701
(309) 829-3478

Valley Illuminators, Inc.
Box 88866
Tuckwila, Washington 98188
(206) 564-2067

Westinghouse Airport Systems Co.
Box 2283
Burlington, Vermont 05401
(802) 863-6871

APPENDIX 2. QUALIFICATION PROCEDURES

1. QUALIFICATION PROGRAM. A qualification program has been established by the Federal Aviation Administration (FAA) for certain equipment components which are unique to aviation and are used in airport lighting and visual aid systems. This program is administered by the Office of Airport Standards and is intended solely for that equipment funded for installation under Federal grant assistance programs for airports. The purpose of the qualification program is to insure that the equipment meets the required standards for safety, performance, quality, and standardization.

2. EQUIPMENT COVERED BY THE QUALIFICATION PROGRAM. The equipment included in the 150/5345 series of advisory circulars, as listed in the contents of this advisory circular, is covered by the qualification program. The equipment covered may be changed periodically to reflect changing needs in airport lighting systems and equipment.

3. SUBMITTAL OF QUALIFICATION REQUESTS. Requests for qualification approval must be submitted in writing to the Office of Airport Standards, Attention: AAS-200, Federal Aviation Administration, Washington, D.C., 20591. This request must include:

a. A list of the types, classes, styles, and sizes of equipment, along with the manufacturer's catalog numbers, for which qualification approval is requested. A list of equipment options should also be included when so specified in individual equipment specifications.

b. Engineering drawings of the equipment to permit determination of adherence to specification design requirements.

c. A copy of proposed test procedures and test data sheets and a statement as to whether the manufacturer proposes to conduct the tests or name and location of an independent testing laboratory where the tests are to be conducted. Since the FAA reserves the right to witness any or all tests, the manufacturer should not commence the tests until advised whether the FAA elects to witness, or waives the option to witness, the tests. The manufacturer shall give the FAA at least 2 weeks' notice prior to starting tests.

d. A statement that the manufacturer agrees to provide the following minimum guarantee for the equipment:

"That the equipment has been manufactured and will perform in accordance with the applicable specifications and that any defect in design, materials, (excluding lamps), or workmanship which may occur during proper and normal use during a period of 1 year from date of installation or a maximum of 2 years from date of shipment will be corrected by repair or replacement by the manufacturer f.o.b. factory."

e. A statement that the manufacturer agrees to provide and maintain a quality control program in accordance with FAA-STD-013, Quality Control Program Requirements (copies of this document may be obtained from the Federal Aviation Administration, Airway Facilities Service, Washington, D.C. 20591). The manufacturer shall also provide a copy of the proposed quality control plan.

f. A copy of the proposed instruction manual for the equipment.

4. REVIEW PROCEDURE FOR QUALIFICATION REQUESTS. The manufacturer will be notified within 1 week after receipt of the qualification request whether the FAA elects or waives the option to witness tests and whether the proposed test procedures and test data sheets are acceptable. Notification of acceptance, or of changes required for acceptance, of the quality control plan, instruction manual, and the equipment design will be made within 30 days. The manufacturer will be notified in writing within 2 weeks after the last submittal of the required documentation or test results, if acceptable, that the equipment is approved. The manufacturer must provide 13 copies of the approved instruction manual within 30 days after approval of the equipment. These manuals are required by various FAA field offices in monitoring the approval of equipment. The approval will be subject to the condition that it may be rescinded if:

a. The manufacturer fails to provide the required instruction manuals.

b. The manufacturer fails to honor the guarantee (paragraph 3d) or does not maintain quality control in accordance with the approved plan (paragraph 3e).

c. The equipment has an unsatisfactory failure rate (paragraph 6).

d. The manufacturer fails to perform the required production tests (paragraph 5).

e. Changes are made in the equipment without FAA approval (paragraph 7).

f. The equipment specification is cancelled or is revised and the manufacturer fails to requalify (paragraph 8).

5. TESTS. The manufacturer must successfully pass all tests in the applicable specification. The manufacturer shall provide all necessary equipment and bear all testing costs. Where the FAA waives the option to witness tests, the manufacturer must submit a certified copy of all test reports. In addition to qualification tests, each equipment specification requires some tests to be conducted on each, or a sampling of, production units. The manufacturer must retain records of the production tests for at least 3 years and permit the FAA (approving office) to witness such tests or inspect previous records on request.

6. UNACCEPTABLE FAILURE RATE. Since reliable equipment is of prime importance to safety of aircraft operations, equipment which proves unreliable in use must be removed from the approval listing. The determination of unreliability must be based on judgment and experience with equipment of a like nature. Where any such equipment is deemed to have an unsatisfactory failure rate or is deficient in

workmanship or materials, the manufacturer will be notified in writing as to the basis for this determination. The manufacturer shall then notify the FAA in writing as to its plan of action for correcting the problem. If the manufacturer does not resolve the problem within a reasonable time (the time frame will, of necessity, be based on safety considerations and/or the nature of the problem), the equipment will be removed from the approval listing. The FAA reserves the right to require the equipment to be subjected to any or all qualification tests when the equipment has been deemed unreliable or deficient in materials or workmanship.

7. MODIFICATIONS TO EQUIPMENT. Once the equipment has been approved, the manufacturer may not make any changes in the equipment without prior FAA approval. Requests for design or component changes must be submitted to the office listed in paragraph 3 and must be accompanied by supporting documentation plus 13 copies of the revised instruction manual pages which reflect the proposed change. Substitution of stock electrical items such as resistors, capacitors, transistors, etc., which are identical in rating and size and which are equal or better in quality does not require FAA approval. This exception does not apply to lamps.

8. REVISION OF SPECIFICATIONS. It may be necessary at times to revise the specification for a particular equipment to reflect changing needs of aviation or of new technology. In such a case the revised equipment specification will contain an effective date, normally 6 months, at which time the prior approval automatically expires unless the manufacturer has been requalified to the revised specification. Manufacturers are informed by letter and supplied a copy of the revised specification within a few days of its issuance. The procedure for requalification is the same as for the original qualification as discussed in paragraph 3 with the following exceptions:

a. The manufacturer does not have to resubmit the quality control plan.

b. Depending on the nature of the equipment modification it may not be necessary to perform all qualification tests. Exemption from certain tests may be granted when requested and justified by the manufacturer that the test is not applicable to the modified design.

9. EXEMPTION FROM SPECIFICATION REQUIREMENTS. No exemptions from the specifications, except as specified in paragraph 8, will be granted. However, it is recognized that equipment specifications may not cover all specific design and operational applications and that equipment may be submitted for approval that does not meet all specification requirements. If the proposed design is considered to have merit, then the applicable equipment specification will be revised to reflect the proposed design and submitted for comment through the normal coordination process with the aviation community. If no valid adverse comments are received on the proposed revision, then the proposed design may be given an interim approval before final approval and publication of the revised specification. In such cases, other manufacturers of similar equipment will be notified of the approval and of the forthcoming specification revision.

1/4/82

10. PUBLICATION OF APPROVAL LISTINGS. A listing of approved manufacturers will be published in this advisory circular which will be updated in January and July of each year. Changes in approval listings made between publication dates may be obtained from the office listed in paragraph 3 or from those FAA offices as listed in AC 150/5000-3, Address List for Regional Airports Divisions and Airport District/Field Offices.

11. Freedom of Information Act. Documentation submitted to the FAA for qualification approval may be made available to the public upon request through the Freedom of Information Act. Material marked "proprietary" will not be accepted under this approval process.

U.S. Department
of Transportation

**Federal Aviation
Administration**

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