

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P227799

Luminaire Tested: **ISS-AF-600-LED-E1-T4FT-7030-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P227799
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29760)-DOWNLIGHT AND
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: ISS-AF-600-LED-E1-T4FT-7030-ULG
Description: IMPACT ELITE LED QUATER SPHERE LUMINAIRE WITH UPLIGHT
LIGHT SQUARE WITH ACCULED OPTICS-TYPE IV FORWARD THROW, WITH UPLIGHT GLOW
Light Source: (16) 3000K CCT, 70 CRI LEDs and (1) UPLIGHT LED
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4848.2 lumens
Efficiency: N/A
Efficacy: 96.2 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.54')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U5 - G1

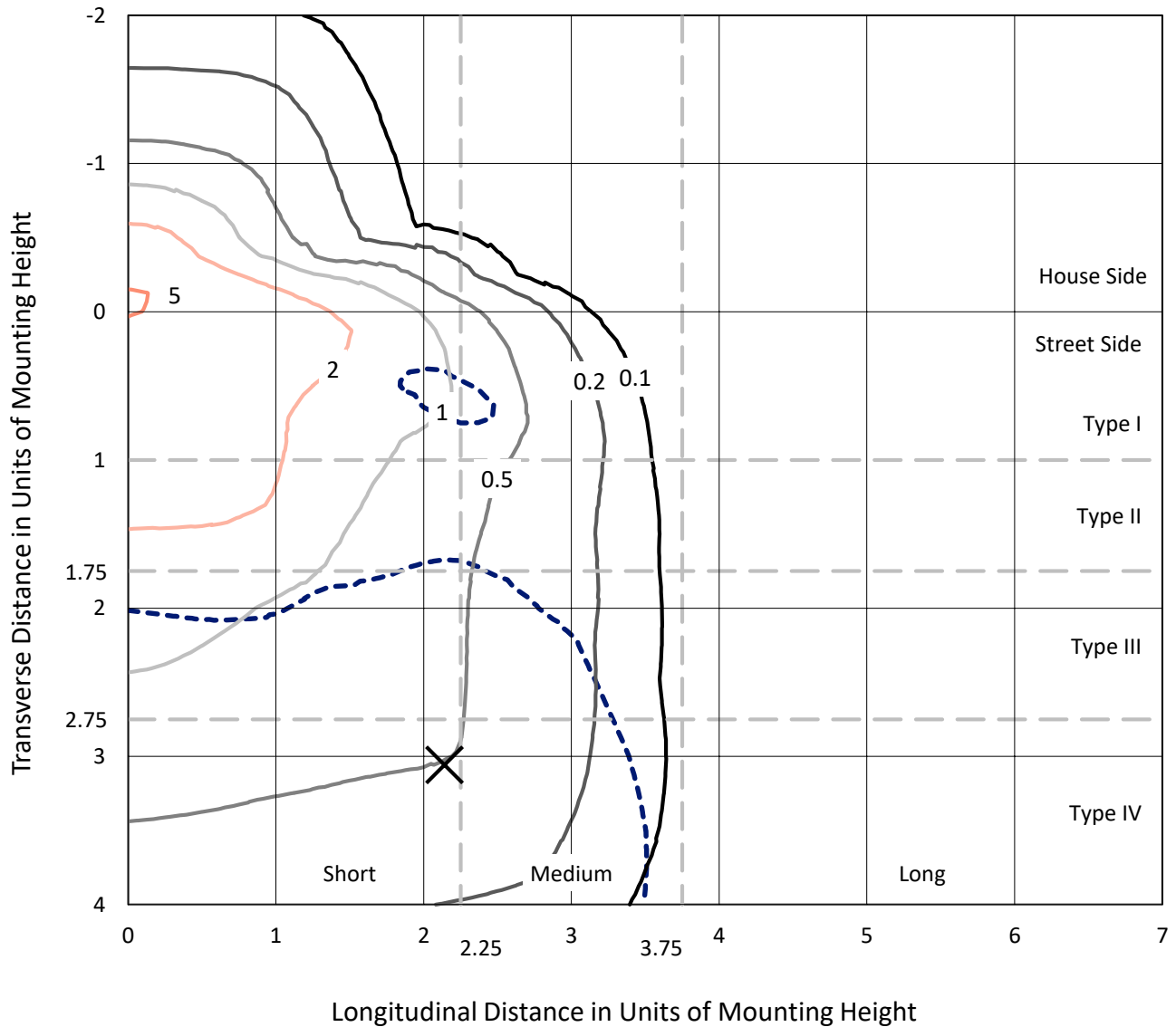
Input Watts (W): 50.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

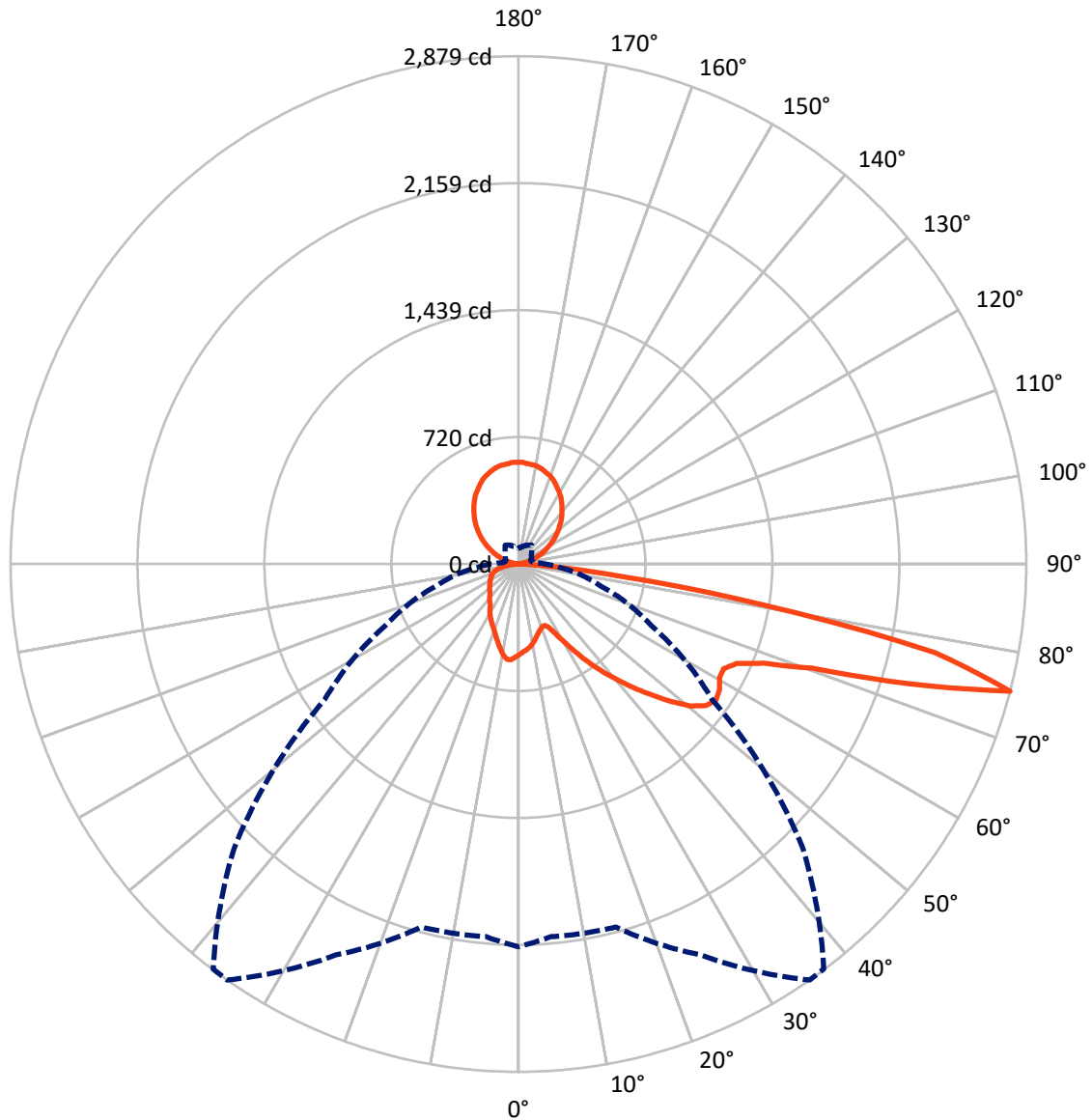
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.2 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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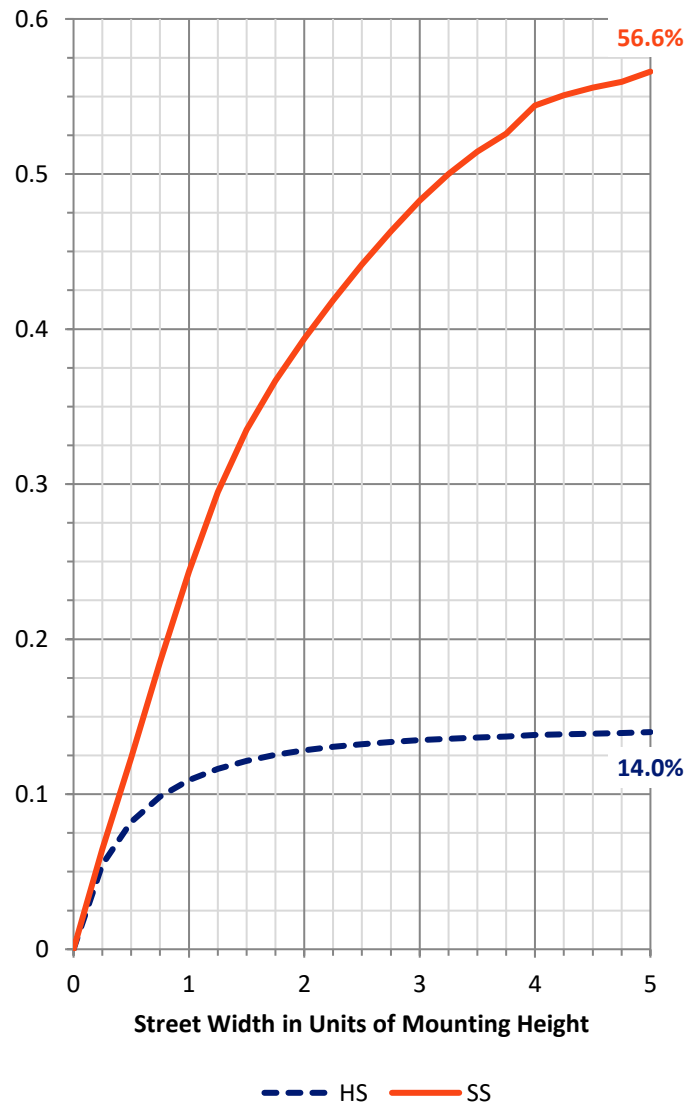
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	686.8	713.1	1399.9
	% Fixture	14.2	14.7	28.9
Street Side	Lumens	2735.2	713.1	3448.3
	% Fixture	56.4	14.7	71.1
Total	Lumens	3422.0	1426.2	4848.2
	% Fixture	70.6	29.4	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.2	1.0
10°-20°	127.4	2.6
20°-30°	201.5	4.2
30°-40°	325.2	6.7
40°-50°	481.1	9.9
50°-60°	618.6	12.8
60°-70°	765.9	15.8
70°-80°	771.8	15.9
80°-90°	82.4	1.7
90°-100°	4.7	0.1
100°-110°	69.0	1.4
110°-120°	153.0	3.2
120°-130°	223.9	4.6
130°-140°	265.6	5.5
140°-150°	269.3	5.6
150°-160°	231.1	4.8
160°-170°	155.1	3.2
170°-180°	54.3	1.1
0°-90°	3422.0	70.6
0°-180°	4848.2	100.0



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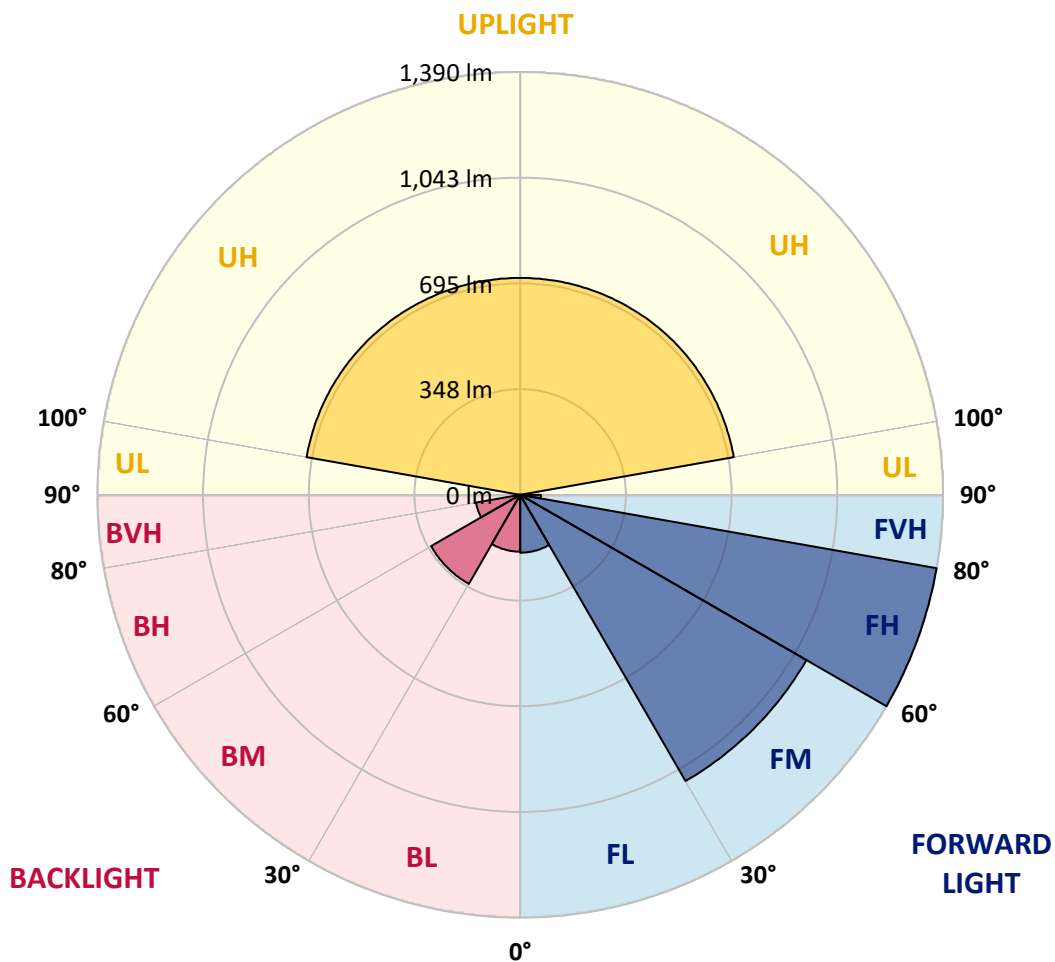
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	190.3	3.9			
FM	(30°-60°)	1086.6	22.4			
FH	(60°-80°)	1390.1	28.7			G1/1800
FVH	(80°-90°)	68.1	1.4			G1/100
BL	(0°-30°)	186.8	3.9	B1/500		
BM	(30°-60°)	338.2	7.0	B1/1000		
BH	(60°-80°)	147.5	3.0	B1/500		G1/500
BVH	(80°-90°)	14.3	0.3			G1/100
UL	(90°-100°)	4.7	0.1		U1/10	
UH	(100°-180°)	713.1	14.7		U4/1000	

BUG Rating: B1-U5-G1

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	37°	45°	55°	65°	75°	85°
0°	514.1	514.1	514.1	514.1	514.1	514.1	514.1	514.1	514.1	514.1	514.1
2.5°	499.2	498.1	496.9	496.9	499.2	499.2	500.4	501.5	502.6	506.1	510.6
5°	485.5	484.4	483.2	484.4	487.8	487.8	491.2	493.5	495.8	501.5	507.2
7.5°	467.2	467.2	466.1	470.7	474.1	472.9	477.5	479.8	485.5	491.2	500.4
10°	443.2	443.2	443.2	449.0	454.7	454.7	458.1	463.8	468.4	476.4	487.8
12.5°	422.7	421.5	421.5	426.1	433.0	434.1	439.8	447.8	453.5	463.8	476.4
15°	415.8	413.5	407.8	407.8	411.3	411.3	420.4	431.8	441.0	451.2	466.1
17.5°	417.0	413.5	398.7	394.1	394.1	395.3	404.4	417.0	428.4	441.0	460.4
20°	427.2	421.5	394.1	383.8	381.6	382.7	390.7	403.3	417.0	434.1	455.8
22.5°	471.8	462.7	411.3	388.4	378.1	378.1	382.7	396.4	413.5	436.4	463.8
25°	574.6	559.8	468.4	427.2	396.4	393.0	385.0	398.7	419.3	446.7	486.7
27.5°	679.7	664.9	539.2	494.7	446.7	436.4	406.7	410.1	433.0	469.5	520.9
30°	767.7	755.1	628.3	576.9	512.9	501.5	455.8	434.1	457.0	501.5	572.3
32.5°	774.5	768.8	724.3	671.7	594.0	578.0	517.5	483.2	494.7	544.9	628.3
35°	838.5	833.9	809.9	759.7	682.0	663.7	599.7	547.2	543.8	592.9	692.3
37.5°	901.3	895.6	879.6	845.4	773.4	758.5	708.3	623.7	599.7	648.9	755.1
40°	960.7	952.7	932.2	912.8	860.2	860.2	806.5	696.9	653.4	698.0	807.7
42.5°	1070.4	1045.3	990.4	975.6	960.7	960.7	881.9	747.1	696.9	751.7	857.9
45°	1175.5	1151.5	1077.3	1047.6	1055.6	1051.0	942.5	775.7	735.7	802.0	905.9
47.5°	1258.9	1237.2	1161.8	1141.2	1164.1	1145.8	992.7	798.5	784.8	855.6	945.9
50°	1333.2	1281.7	1208.6	1236.1	1264.6	1233.8	1037.3	832.8	833.9	912.8	1004.2
52.5°	1231.5	1225.8	1241.8	1305.7	1333.2	1298.9	1077.3	876.2	886.5	985.9	1070.4
55°	1109.3	1108.1	1201.8	1326.3	1359.4	1327.4	1103.5	928.8	941.3	1076.1	1153.8
57.5°	1085.3	1073.8	1137.8	1282.9	1343.4	1320.6	1117.2	977.9	993.9	1190.4	1236.1
60°	1162.9	1141.2	1131.0	1236.1	1309.2	1297.7	1134.4	1036.1	1057.8	1320.6	1312.6
62.5°	1332.0	1302.3	1229.2	1239.5	1305.7	1296.6	1175.5	1104.7	1129.8	1450.8	1356.0
65°	1555.9	1534.2	1417.7	1334.3	1359.4	1346.9	1249.8	1191.5	1205.2	1544.5	1306.9
67.5°	1801.5	1771.8	1645.0	1530.8	1498.8	1474.8	1367.4	1294.3	1245.2	1530.8	1175.5
70°	2079.1	2047.1	1937.5	1819.8	1765.0	1738.7	1573.1	1383.4	1230.3	1380.0	927.6
72.5°	2420.7	2377.3	2316.7	2329.3	2320.2	2247.1	1900.9	1413.1	1121.8	1027.0	554.1
75°	2169.4	2120.3	2130.5	2444.7	2878.8	2875.4	2280.2	1340.0	836.2	484.4	239.9
77.5°	778.0	860.2	1269.2	1831.2	2413.8	2410.4	1765.0	838.5	358.7	206.8	145.1
80°	195.3	198.8	315.3	751.7	1409.7	1398.3	1000.7	316.4	149.7	125.7	99.4
82.5°	62.8	67.4	115.4	259.3	603.2	589.5	310.7	104.0	93.7	81.1	60.5
85°	20.6	20.6	41.1	89.1	198.8	190.8	62.8	37.7	51.4	42.3	27.4
87.5°	0.0	0.0	1.1	2.3	4.6	2.3	0.0	2.3	6.9	8.0	5.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
97.5°	2.0	2.0	2.0	3.0	4.0	5.0	9.0	13.0	7.0	5.0	4.0
100°	8.0	8.0	10.0	14.0	22.0	23.6	30.0	32.0	30.0	27.0	26.0
102.5°	28.0	28.0	32.0	38.0	45.0	46.0	50.0	51.0	50.0	48.0	49.0
105°	54.0	54.0	56.0	61.0	66.0	66.8	70.0	71.0	71.0	69.0	71.0
107.5°	78.0	77.0	80.0	84.0	88.0	88.6	91.0	93.0	92.0	91.0	92.0
110°	101.0	102.0	103.0	106.0	110.0	110.4	112.0	114.0	114.0	113.0	114.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	37°	45°	55°	65°	75°	85°
112.5°	124.0	124.0	126.0	129.0	132.0	132.4	134.0	136.0	136.0	135.0	137.0
115°	146.0	147.0	149.0	151.0	154.0	154.4	156.0	158.0	158.0	158.0	160.0
117.5°	169.0	170.0	172.0	174.0	177.0	177.4	179.0	180.0	181.0	180.0	182.0
120°	193.0	195.0	196.0	198.0	201.0	201.2	202.0	204.0	204.0	204.0	206.0
122.5°	219.0	220.0	221.0	223.0	226.0	226.2	227.0	228.0	228.0	229.0	233.0
125°	244.0	246.0	247.0	248.0	251.0	251.2	252.0	253.0	254.0	254.0	257.0
127.5°	267.0	269.0	270.0	272.0	274.0	274.4	276.0	278.0	277.0	278.0	281.0
130°	290.0	292.0	293.0	294.0	298.0	298.2	299.0	301.0	301.0	302.0	305.0
132.5°	313.0	314.0	317.0	318.0	321.0	321.2	322.0	325.0	325.0	326.0	329.0
135°	336.0	337.0	339.0	341.0	345.0	345.0	345.0	348.0	348.0	349.0	351.0
137.5°	359.0	360.0	363.0	364.0	367.0	367.0	367.0	369.0	369.0	370.0	374.0
140°	382.0	383.0	385.0	386.0	388.0	388.2	389.0	390.0	390.0	392.0	396.0
142.5°	404.0	406.0	408.0	407.0	410.0	410.0	410.0	412.0	412.0	413.0	416.0
145°	425.0	426.0	428.0	428.0	431.0	431.2	432.0	434.0	433.0	434.0	437.0
147.5°	444.0	444.0	447.0	448.0	452.0	452.2	453.0	454.0	452.0	453.0	456.0
150°	461.0	462.0	464.0	465.0	469.0	469.2	470.0	471.0	469.0	469.0	473.0
152.5°	479.0	480.0	483.0	482.0	485.0	485.2	486.0	487.0	486.0	486.0	489.0
155°	499.0	500.0	502.0	501.0	503.0	503.0	503.0	504.0	503.0	504.0	507.0
157.5°	513.0	515.0	517.0	516.0	519.0	519.0	519.0	519.0	517.0	518.0	523.0
160°	525.0	527.0	529.0	529.0	532.0	532.0	532.0	532.0	530.0	530.0	533.0
162.5°	535.0	536.0	539.0	538.0	541.0	541.0	541.0	542.0	540.0	538.0	540.0
165°	546.0	547.0	549.0	548.0	552.0	552.0	552.0	553.0	550.0	548.0	550.0
167.5°	555.0	556.0	559.0	558.0	561.0	560.8	560.0	560.0	558.0	559.0	563.0
170°	562.0	563.0	566.0	565.0	567.0	566.8	566.0	565.0	564.0	566.0	571.0
172.5°	565.0	566.0	569.0	567.0	569.0	568.8	568.0	569.0	567.0	568.0	571.0
175°	567.0	569.0	570.0	569.0	572.0	572.0	572.0	573.0	570.0	568.0	571.0
177.5°	572.0	573.0	575.0	574.0	578.0	577.8	577.0	577.0	574.0	574.0	577.0
180°	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	514.1	514.1	514.1	514.1	514.1	514.1	514.1	514.1	514.1	514.1	514.1
2.5°	514.1	512.9	517.5	520.9	522.1	525.5	528.9	531.2	530.1	528.9	528.9
5°	512.9	514.1	522.1	528.9	534.6	540.3	544.9	547.2	546.1	546.1	546.1
7.5°	506.1	510.6	519.8	531.2	539.2	542.6	543.8	540.3	538.1	534.6	534.6
10°	494.7	501.5	516.4	528.9	532.3	527.8	520.9	514.1	504.9	499.2	499.2
12.5°	485.5	493.5	511.8	522.1	517.5	506.1	491.2	479.8	470.7	463.8	462.7
15°	477.5	487.8	507.2	509.5	499.2	479.8	460.4	447.8	437.5	433.0	433.0
17.5°	471.8	485.5	502.6	495.8	475.2	450.1	431.8	421.5	413.5	409.0	407.8
20°	472.9	490.1	498.1	478.7	449.0	422.7	405.5	399.8	394.1	391.8	391.8
22.5°	485.5	501.5	496.9	463.8	425.0	395.3	383.8	382.7	380.4	378.1	377.0
25°	512.9	524.4	500.4	449.0	399.8	370.1	364.4	367.8	366.7	364.4	364.4
27.5°	550.6	552.9	506.1	434.1	372.4	346.1	346.1	351.9	349.6	346.1	348.4
30°	596.3	583.8	508.4	410.1	340.4	323.3	326.7	330.1	327.9	323.3	323.3
32.5°	645.4	615.7	508.4	379.3	309.6	302.7	303.9	305.0	300.4	294.7	294.7
35°	693.4	646.6	502.6	342.7	285.6	282.2	281.0	285.6	282.2	274.2	274.2
37.5°	739.1	670.6	487.8	305.0	267.3	266.2	269.6	267.3	262.7	251.3	249.0
40°	771.1	686.6	458.1	274.2	252.5	259.3	257.0	244.5	237.6	229.6	229.6
42.5°	799.7	694.6	421.5	250.2	242.2	251.3	242.2	226.2	217.1	215.9	217.1
45°	825.9	701.4	386.1	230.8	229.6	242.2	230.8	213.6	203.3	203.3	204.5
47.5°	851.1	708.3	350.7	212.5	214.8	228.5	221.6	204.5	194.2	187.4	187.4
50°	891.1	724.3	299.3	193.1	197.6	217.1	214.8	195.3	183.9	173.6	171.4
52.5°	939.0	751.7	243.3	172.5	185.1	206.8	206.8	187.4	174.8	161.1	158.8
55°	1003.0	781.4	195.3	157.6	172.5	195.3	198.8	183.9	165.6	153.1	150.8
57.5°	1067.0	791.7	157.6	142.8	156.5	183.9	193.1	177.1	155.4	146.2	145.1
60°	1111.5	758.5	132.5	130.2	145.1	170.2	185.1	169.1	148.5	139.4	139.4
62.5°	1104.7	658.0	118.8	122.2	135.9	159.9	178.2	162.2	143.9	138.2	137.1
65°	1007.6	496.9	107.4	115.4	127.9	149.7	171.4	158.8	141.7	135.9	133.7
67.5°	848.8	330.1	99.4	108.5	119.9	141.7	165.6	154.2	134.8	131.4	129.1
70°	614.6	193.1	91.4	101.7	112.0	132.5	157.6	145.1	126.8	124.5	118.8
72.5°	332.4	121.1	82.3	92.5	101.7	121.1	145.1	133.7	116.5	107.4	104.0
75°	151.9	88.0	73.1	82.3	89.1	106.2	130.2	117.7	104.0	92.5	90.2
77.5°	101.7	66.3	61.7	70.8	74.3	89.1	115.4	93.7	81.1	73.1	70.8
80°	69.7	49.1	50.3	58.3	57.1	70.8	86.8	75.4	64.0	66.3	60.5
82.5°	44.6	34.3	38.8	41.1	40.0	53.7	67.4	57.1	48.0	40.0	34.3
85°	19.4	18.3	22.8	24.0	24.0	29.7	35.4	28.6	21.7	16.0	16.0
87.5°	1.1	2.3	2.3	3.4	2.3	1.1	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
97.5°	4.0	4.0	5.0	7.0	13.0	9.0	4.0	3.0	2.0	2.0	2.0
100°	25.0	26.0	27.0	30.0	32.0	30.0	22.0	14.0	10.0	8.0	8.0
102.5°	48.0	49.0	48.0	50.0	51.0	50.0	45.0	38.0	32.0	28.0	28.0
105°	69.0	71.0	69.0	71.0	71.0	70.0	66.0	61.0	56.0	54.0	54.0
107.5°	91.0	92.0	91.0	92.0	93.0	91.0	88.0	84.0	80.0	77.0	78.0
110°	113.0	114.0	113.0	114.0	114.0	112.0	110.0	106.0	103.0	102.0	101.0



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CATALOG NUMBER: ISS-AF-600-LED-E1-T4FT-7030-ULG

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	135.0	137.0	135.0	136.0	136.0	134.0	132.0	129.0	126.0	124.0	124.0
115°	159.0	160.0	158.0	158.0	158.0	156.0	154.0	151.0	149.0	147.0	146.0
117.5°	180.0	182.0	180.0	181.0	180.0	179.0	177.0	174.0	172.0	170.0	169.0
120°	204.0	206.0	204.0	204.0	204.0	202.0	201.0	198.0	196.0	195.0	193.0
122.5°	232.0	233.0	229.0	228.0	228.0	227.0	226.0	223.0	221.0	220.0	219.0
125°	256.0	257.0	254.0	254.0	253.0	252.0	251.0	248.0	247.0	246.0	244.0
127.5°	278.0	281.0	278.0	277.0	278.0	276.0	274.0	272.0	270.0	269.0	267.0
130°	303.0	305.0	302.0	301.0	301.0	299.0	298.0	294.0	293.0	292.0	290.0
132.5°	327.0	329.0	326.0	325.0	325.0	322.0	321.0	318.0	317.0	314.0	313.0
135°	350.0	351.0	349.0	348.0	348.0	345.0	345.0	341.0	339.0	337.0	336.0
137.5°	372.0	374.0	370.0	369.0	369.0	367.0	367.0	364.0	363.0	360.0	359.0
140°	394.0	396.0	392.0	390.0	390.0	389.0	388.0	386.0	385.0	383.0	382.0
142.5°	415.0	416.0	413.0	412.0	412.0	410.0	410.0	407.0	408.0	406.0	404.0
145°	435.0	437.0	434.0	433.0	434.0	432.0	431.0	428.0	428.0	426.0	425.0
147.5°	453.0	456.0	453.0	452.0	454.0	453.0	452.0	448.0	447.0	444.0	444.0
150°	470.0	473.0	469.0	469.0	471.0	470.0	469.0	465.0	464.0	462.0	461.0
152.5°	486.0	489.0	486.0	486.0	487.0	486.0	485.0	482.0	483.0	480.0	479.0
155°	505.0	507.0	504.0	503.0	504.0	503.0	503.0	501.0	502.0	500.0	499.0
157.5°	520.0	523.0	518.0	517.0	519.0	519.0	519.0	516.0	517.0	515.0	513.0
160°	531.0	533.0	530.0	530.0	532.0	532.0	532.0	529.0	529.0	527.0	525.0
162.5°	537.0	540.0	538.0	540.0	542.0	541.0	541.0	538.0	539.0	536.0	535.0
165°	548.0	550.0	548.0	550.0	553.0	552.0	552.0	548.0	549.0	547.0	546.0
167.5°	561.0	563.0	559.0	558.0	560.0	560.0	561.0	558.0	559.0	556.0	555.0
170°	569.0	571.0	566.0	564.0	565.0	566.0	567.0	565.0	566.0	563.0	562.0
172.5°	568.0	571.0	568.0	567.0	569.0	568.0	569.0	567.0	569.0	566.0	565.0
175°	568.0	571.0	568.0	570.0	573.0	572.0	572.0	569.0	570.0	569.0	567.0
177.5°	574.0	577.0	574.0	574.0	577.0	577.0	578.0	574.0	575.0	573.0	572.0
180°	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0

(END OF REPORT)