

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: P227796

Luminaire Tested: **ISS-AF-600-LED-E1-T4FT-8030-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P227796
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-8030-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, 80 CRI LEDs and (1) UPLIGHT LED
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4581.2 lumens
Efficiency: N/A
Efficacy: 90.9 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

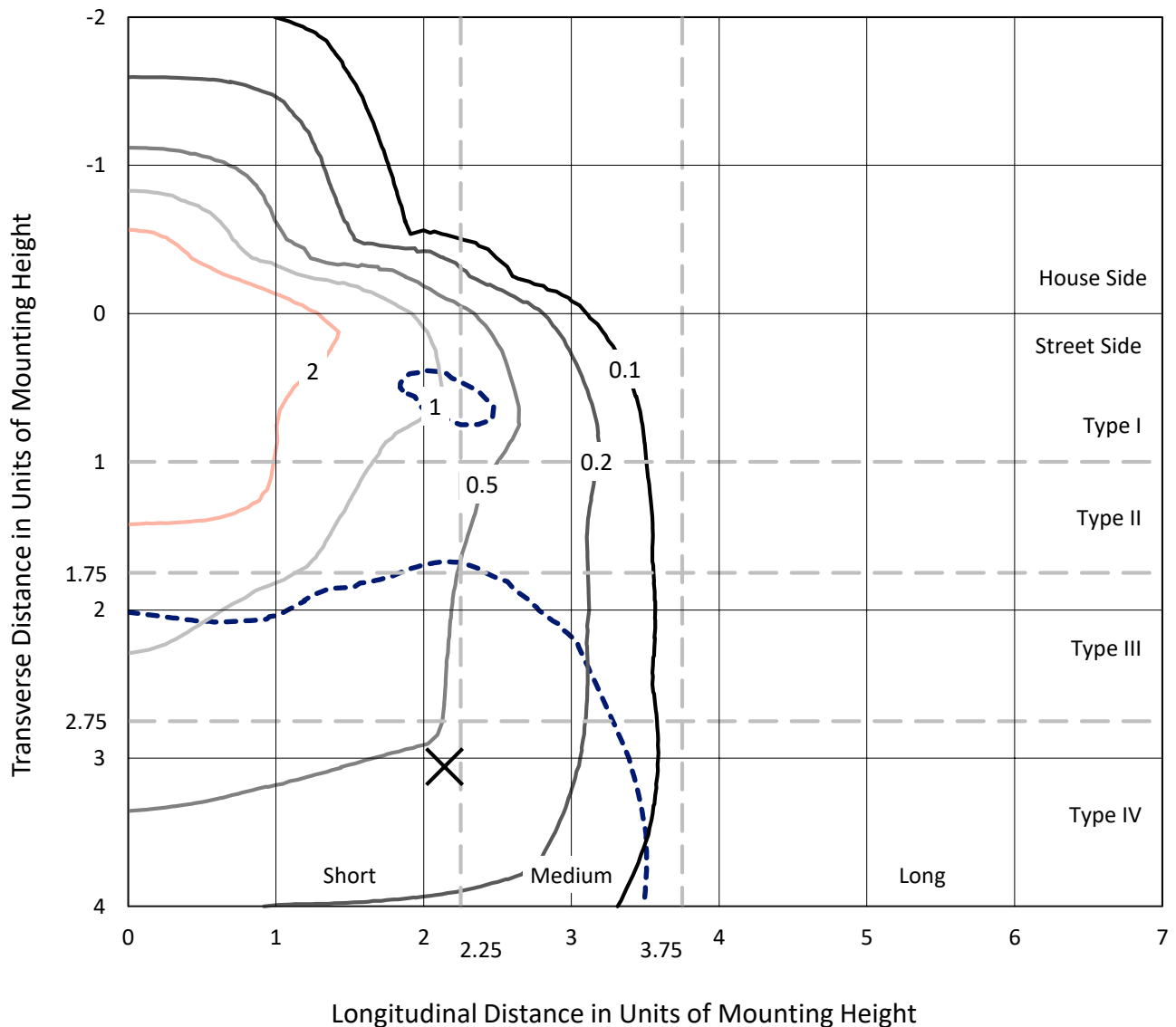
Input Watts (W): 50.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

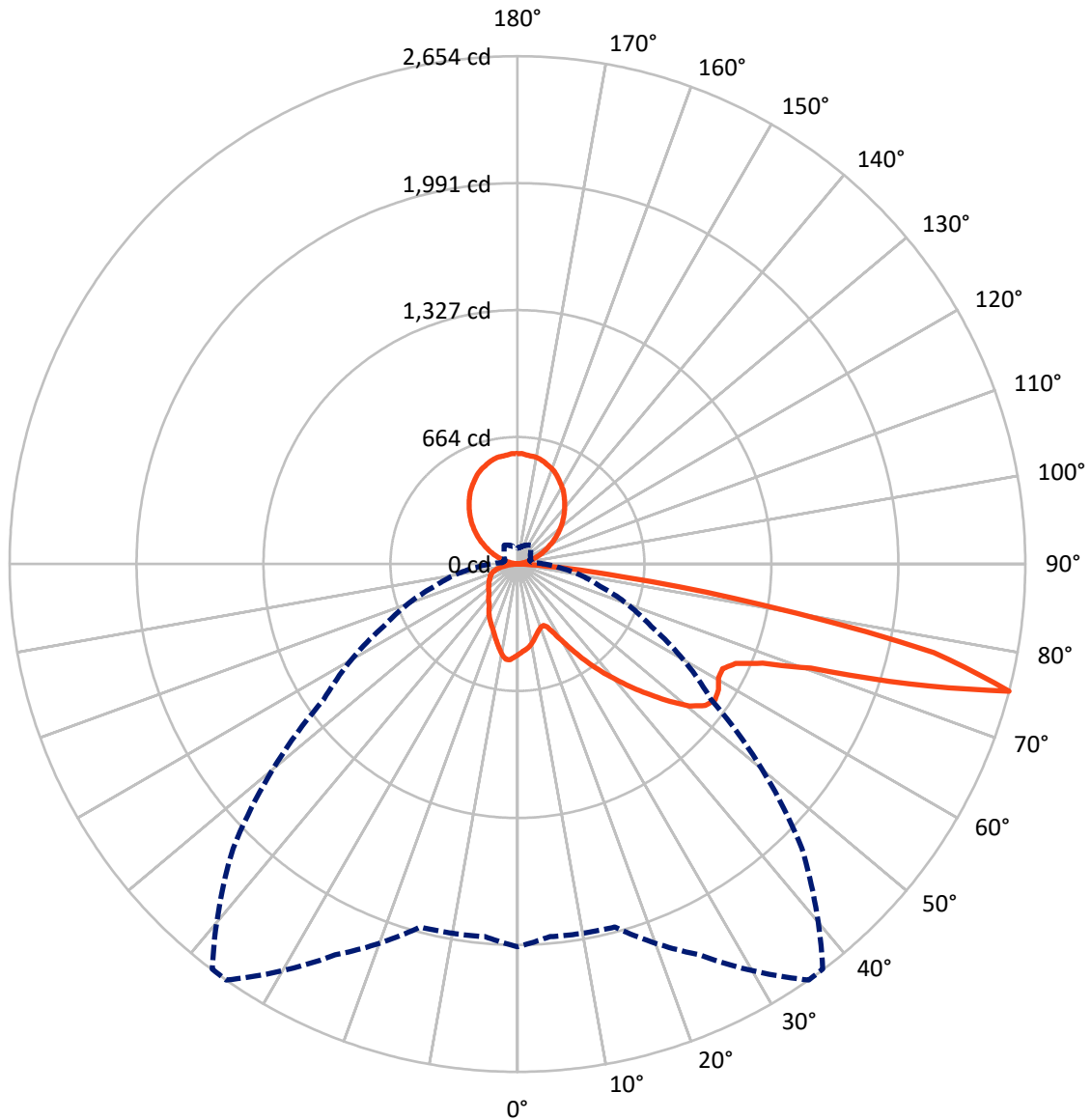
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.8 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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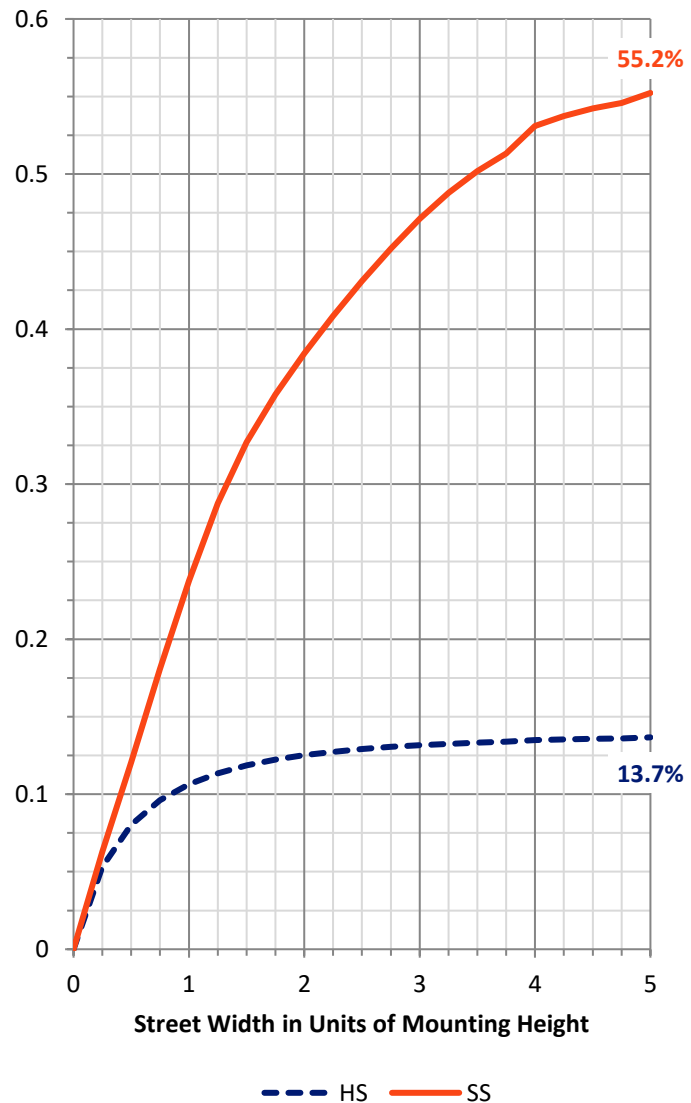
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	633.2	713.1	1346.3
	% Fixture	13.8	15.6	29.4
Street Side	Lumens	2521.8	713.1	3234.9
	% Fixture	55.0	15.6	70.6
Total	Lumens	3155.0	1426.2	4581.2
	% Fixture	68.9	31.1	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.5	1.0
10°-20°	117.4	2.6
20°-30°	185.8	4.1
30°-40°	299.8	6.5
40°-50°	443.6	9.7
50°-60°	570.3	12.4
60°-70°	706.1	15.4
70°-80°	711.6	15.5
80°-90°	76.0	1.7
90°-100°	4.7	0.1
100°-110°	69.0	1.5
110°-120°	153.0	3.3
120°-130°	223.9	4.9
130°-140°	265.6	5.8
140°-150°	269.3	5.9
150°-160°	231.1	5.0
160°-170°	155.1	3.4
170°-180°	54.3	1.2
0°-90°	3155.0	68.9
0°-180°	4581.2	100.0



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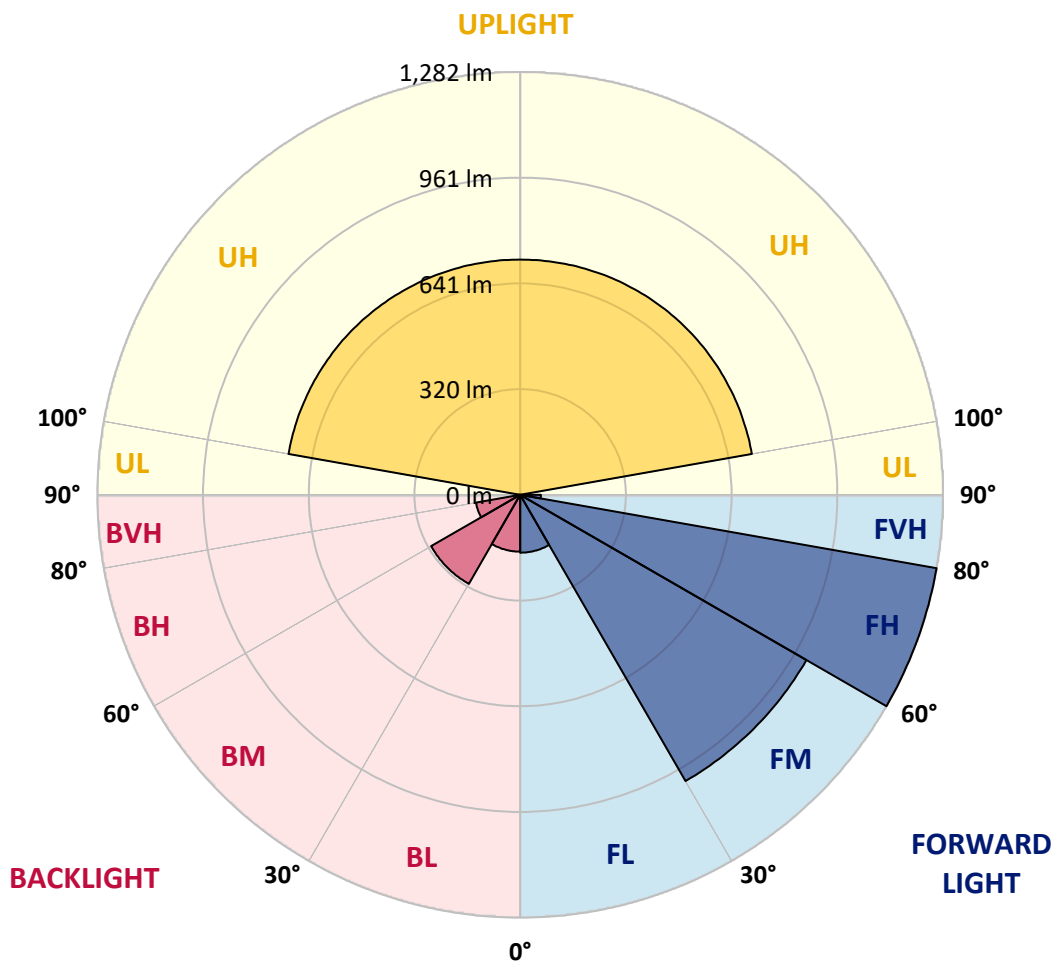
CATALOG NUMBER: ISS-AF-600-LED-E1-T4FT-8030-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	175.4	3.8			
FM (30°-60°)	1001.8	21.9			
FH (60°-80°)	1281.7	28.0			G1/1800
FVH (80°-90°)	62.8	1.4			G1/100
BL (0°-30°)	172.2	3.8	B1/500		
BM (30°-60°)	311.8	6.8	B1/1000		
BH (60°-80°)	136.0	3.0	B1/500		G1/500
BVH (80°-90°)	13.1	0.3			G1/100
UL (90°-100°)	4.7	0.1		U1/10	
UH (100°-180°)	713.1	15.6		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°	474.0	474.0	474.0	474.0	474.0	474.0	474.0	474.0	474.0	474.0	474.0
2.5°	460.3	459.2	458.2	458.2	460.3	460.3	461.3	462.4	463.4	466.6	470.8
5°	447.6	446.6	445.5	446.6	449.7	449.7	452.9	455.0	457.1	462.4	467.6
7.5°	430.8	430.8	429.7	433.9	437.1	436.0	440.3	442.4	447.6	452.9	461.3
10°	408.7	408.7	408.7	413.9	419.2	419.2	422.4	427.6	431.8	439.2	449.7
12.5°	389.7	388.6	388.6	392.9	399.2	400.2	405.5	412.9	418.1	427.6	439.2
15°	383.4	381.3	376.0	376.0	379.2	379.2	387.6	398.1	406.6	416.0	429.7
17.5°	384.4	381.3	367.6	363.4	363.4	364.4	372.8	384.4	395.0	406.6	424.5
20°	393.9	388.6	363.4	353.9	351.8	352.8	360.2	371.8	384.4	400.2	420.2
22.5°	435.0	426.6	379.2	358.1	348.6	348.6	352.8	365.5	381.3	402.3	427.6
25°	529.8	516.1	431.8	393.9	365.5	362.3	354.9	367.6	386.5	411.8	448.7
27.5°	626.7	613.0	497.1	456.1	411.8	402.3	375.0	378.1	399.2	432.9	480.3
30°	707.8	696.2	579.3	531.9	472.9	462.4	420.2	400.2	421.3	462.4	527.7
32.5°	714.1	708.8	667.8	619.3	547.7	532.9	477.1	445.5	456.1	502.4	579.3
35°	773.1	768.9	746.8	700.4	628.8	611.9	553.0	504.5	501.3	546.6	638.3
37.5°	831.0	825.7	811.0	779.4	713.0	699.4	653.0	575.1	553.0	598.2	696.2
40°	885.8	878.4	859.4	841.5	793.1	793.1	743.6	642.5	602.5	643.5	744.6
42.5°	986.9	963.7	913.2	899.5	885.8	885.8	813.1	688.8	642.5	693.0	791.0
45°	1083.8	1061.7	993.2	965.8	973.2	969.0	868.9	715.2	678.3	739.4	835.2
47.5°	1160.7	1140.7	1071.2	1052.2	1073.3	1056.4	915.3	736.2	723.6	788.9	872.1
50°	1229.1	1181.7	1114.3	1139.6	1165.9	1137.5	956.3	767.8	768.9	841.5	925.8
52.5°	1135.4	1130.1	1144.9	1203.9	1229.1	1197.5	993.2	807.8	817.3	909.0	986.9
55°	1022.7	1021.6	1108.0	1222.8	1253.4	1223.9	1017.4	856.3	867.9	992.2	1063.8
57.5°	1000.6	990.1	1049.0	1182.8	1238.6	1217.6	1030.1	901.6	916.3	1097.5	1139.6
60°	1072.2	1052.2	1042.7	1139.6	1207.0	1196.5	1045.9	955.3	975.3	1217.6	1210.2
62.5°	1228.1	1200.7	1133.3	1142.8	1203.9	1195.4	1083.8	1018.5	1041.7	1337.6	1250.2
65°	1434.5	1414.5	1307.1	1230.2	1253.4	1241.8	1152.3	1098.5	1111.2	1424.0	1204.9
67.5°	1661.0	1633.6	1516.7	1411.3	1381.9	1359.7	1260.7	1193.3	1148.0	1411.3	1083.8
70°	1916.9	1887.4	1786.3	1677.8	1627.3	1603.0	1450.3	1275.5	1134.3	1272.3	855.2
72.5°	2231.8	2191.8	2136.0	2147.6	2139.1	2071.7	1752.6	1302.9	1034.3	946.9	510.8
75°	2000.1	1954.8	1964.3	2253.9	2654.2	2651.0	2102.3	1235.5	771.0	446.6	221.2
77.5°	717.3	793.1	1170.2	1688.4	2225.5	2222.3	1627.3	773.1	330.7	190.6	133.8
80°	180.1	183.3	290.7	693.0	1299.7	1289.2	922.6	291.7	138.0	115.9	91.6
82.5°	57.9	62.1	106.4	239.1	556.1	543.5	286.5	95.8	86.4	74.8	55.8
85°	19.0	19.0	37.9	82.2	183.3	175.9	57.9	34.8	47.4	39.0	25.3
87.5°	0.0	0.0	1.1	2.1	4.2	2.1	0.0	2.1	6.3	7.4	5.3
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°	474.0	474.0	474.0	474.0	474.0	474.0	474.0	474.0	474.0	474.0	474.0
2.5°	474.0	472.9	477.1	480.3	481.3	484.5	487.7	489.8	488.7	487.7	487.7
5°	472.9	474.0	481.3	487.7	492.9	498.2	502.4	504.5	503.5	503.5	503.5
7.5°	466.6	470.8	479.2	489.8	497.1	500.3	501.3	498.2	496.1	492.9	492.9
10°	456.1	462.4	476.1	487.7	490.8	486.6	480.3	474.0	465.5	460.3	460.3
12.5°	447.6	455.0	471.9	481.3	477.1	466.6	452.9	442.4	433.9	427.6	426.6
15°	440.3	449.7	467.6	469.7	460.3	442.4	424.5	412.9	403.4	399.2	399.2
17.5°	435.0	447.6	463.4	457.1	438.2	415.0	398.1	388.6	381.3	377.1	376.0
20°	436.0	451.8	459.2	441.3	413.9	389.7	373.9	368.6	363.4	361.3	361.3
22.5°	447.6	462.4	458.2	427.6	391.8	364.4	353.9	352.8	350.7	348.6	347.6
25°	472.9	483.4	461.3	413.9	368.6	341.3	336.0	339.1	338.1	336.0	336.0
27.5°	507.7	509.8	466.6	400.2	343.4	319.1	319.1	324.4	322.3	319.1	321.2
30°	549.8	538.2	468.7	378.1	313.9	298.1	301.2	304.4	302.3	298.1	298.1
32.5°	595.1	567.7	468.7	349.7	285.4	279.1	280.2	281.2	277.0	271.7	271.7
35°	639.3	596.1	463.4	316.0	263.3	260.2	259.1	263.3	260.2	252.8	252.8
37.5°	681.5	618.3	449.7	281.2	246.5	245.4	248.6	246.5	242.2	231.7	229.6
40°	710.9	633.0	422.4	252.8	232.8	239.1	237.0	225.4	219.1	211.7	211.7
42.5°	737.3	640.4	388.6	230.7	223.3	231.7	223.3	208.5	200.1	199.1	200.1
45°	761.5	646.7	356.0	212.8	211.7	223.3	212.8	197.0	187.5	187.5	188.5
47.5°	784.7	653.0	323.3	195.9	198.0	210.6	204.3	188.5	179.1	172.7	172.7
50°	821.5	667.8	276.0	178.0	182.2	200.1	198.0	180.1	169.6	160.1	158.0
52.5°	865.8	693.0	224.3	159.0	170.6	190.6	190.6	172.7	161.1	148.5	146.4
55°	924.7	720.4	180.1	145.3	159.0	180.1	183.3	169.6	152.7	141.1	139.0
57.5°	983.7	729.9	145.3	131.7	144.3	169.6	178.0	163.3	143.2	134.8	133.8
60°	1024.8	699.4	122.2	120.1	133.8	156.9	170.6	155.9	136.9	128.5	128.5
62.5°	1018.5	606.7	109.5	112.7	125.3	147.5	164.3	149.6	132.7	127.4	126.4
65°	929.0	458.2	99.0	106.4	118.0	138.0	158.0	146.4	130.6	125.3	123.2
67.5°	782.6	304.4	91.6	100.1	110.6	130.6	152.7	142.2	124.3	121.1	119.0
70°	566.6	178.0	84.3	93.7	103.2	122.2	145.3	133.8	116.9	114.8	109.5
72.5°	306.5	111.6	75.8	85.3	93.7	111.6	133.8	123.2	107.4	99.0	95.8
75°	140.1	81.1	67.4	75.8	82.2	98.0	120.1	108.5	95.8	85.3	83.2
77.5°	93.7	61.1	56.9	65.3	68.5	82.2	106.4	86.4	74.8	67.4	65.3
80°	64.2	45.3	46.3	53.7	52.7	65.3	80.0	69.5	59.0	61.1	55.8
82.5°	41.1	31.6	35.8	37.9	36.9	49.5	62.1	52.7	44.2	36.9	31.6
85°	17.9	16.9	21.1	22.1	22.1	27.4	32.7	26.3	20.0	14.7	14.7
87.5°	1.1	2.1	2.1	3.2	2.1	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-8030-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)