

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: P228339

Luminaire Tested: **ISS-AF-1000-LED-E1-SL4-7030-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P228339
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29763)-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-1000-LED-E1-SL4-7030-ULG
Description: IMPACT ELITE LED QUATER SPHERE LUMINAIRE WITH UPLIGHT
LIGHT SQUARE WITH ACCULED OPTICS-TYPE IV W/SPILL CONTROL, 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: 5952.2 lumens
Efficiency: N/A
Efficacy: 83.5 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 - G2

Input Watts (W): 71.3
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

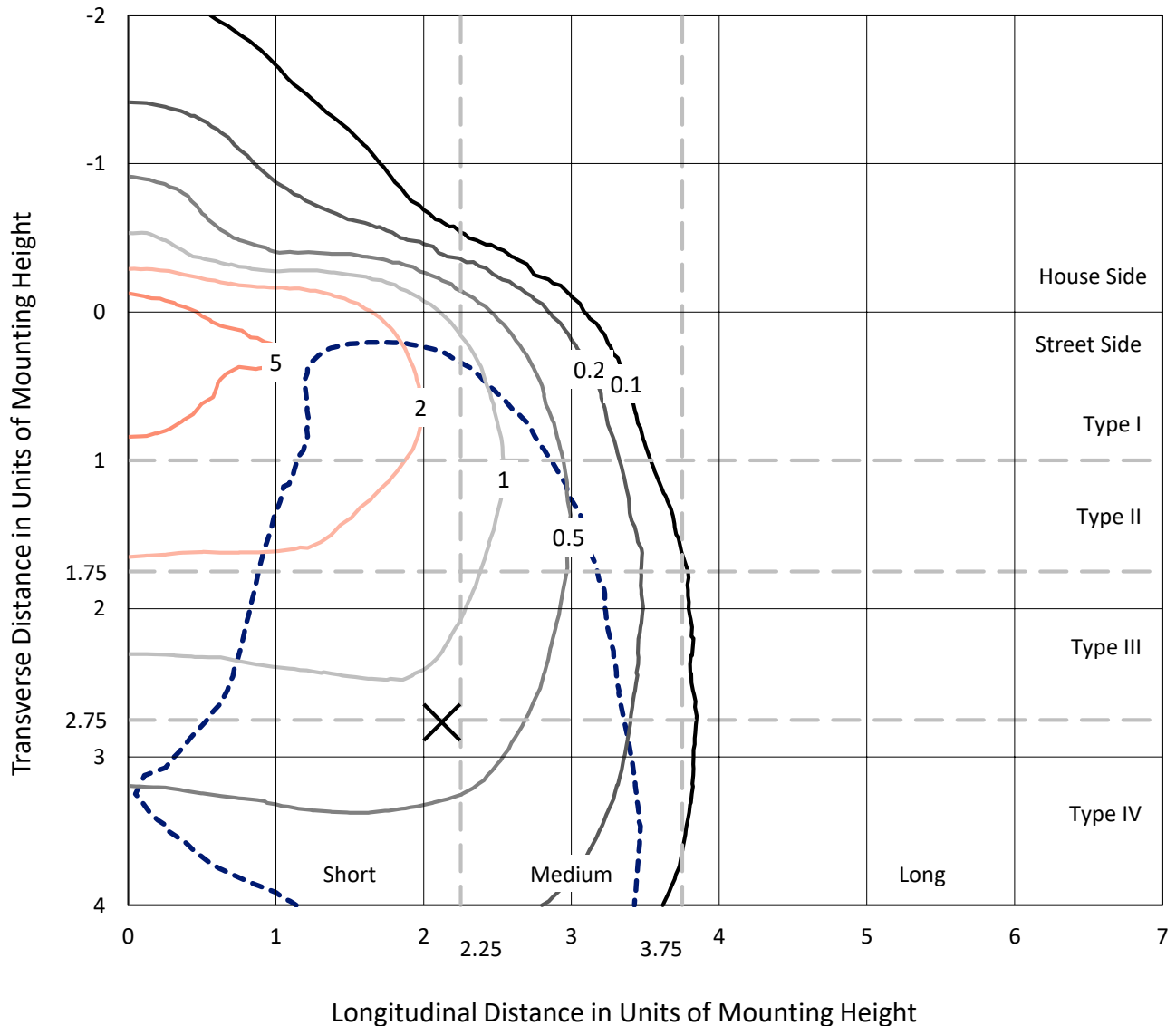


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

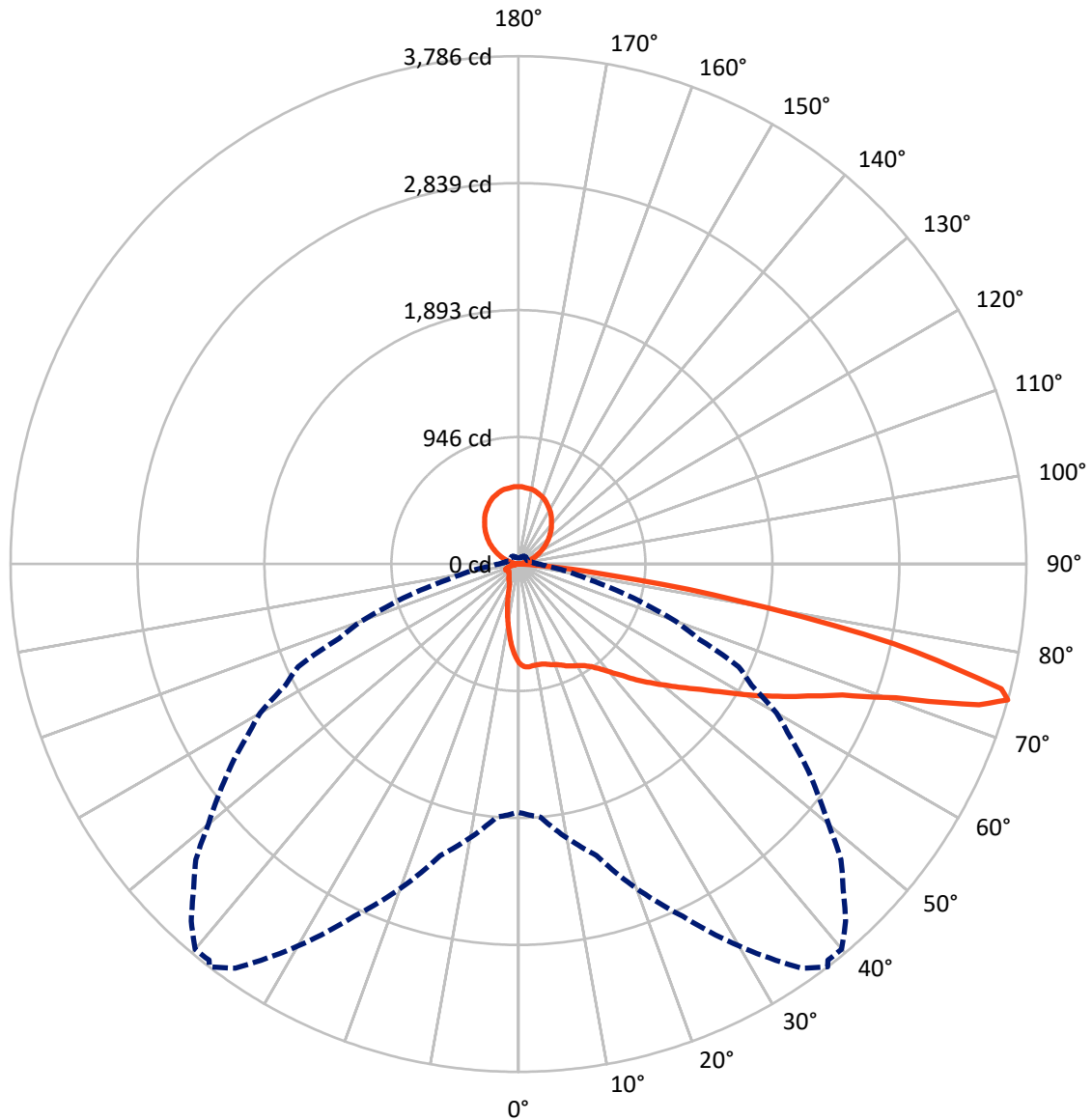


Based on 10 foot mounting height. Maximum calculated value = 7.8 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 37.5-Deg Lateral - - - Horizontal Cone Through 74-Deg Vertical

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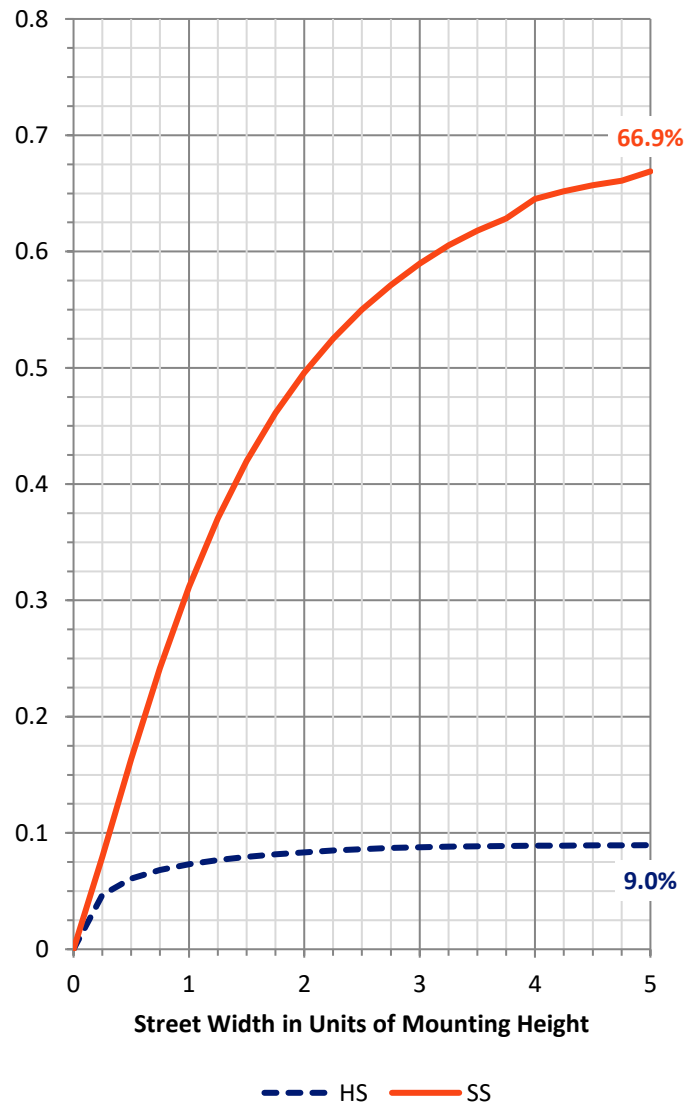
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	536.7	713.1	1249.8
	% Fixture	9.0	12.0	21.0
Street Side	Lumens	3989.3	713.1	4702.4
	% Fixture	67.0	12.0	79.0
Total	Lumens	4526.0	1426.2	5952.2
	% Fixture	76.0	24.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.3	1.1
10°-20°	163.8	2.8
20°-30°	253.8	4.3
30°-40°	376.5	6.3
40°-50°	579.2	9.7
50°-60°	856.1	14.4
60°-70°	1141.2	19.2
70°-80°	985.1	16.5
80°-90°	106.0	1.8
90°-100°	4.7	0.1
100°-110°	69.0	1.2
110°-120°	153.0	2.6
120°-130°	223.9	3.8
130°-140°	265.6	4.5
140°-150°	269.3	4.5
150°-160°	231.1	3.9
160°-170°	155.1	2.6
170°-180°	54.3	0.9
0°-90°	4526.0	76.0
0°-180°	5952.2	100.0

Coefficient of Utilization



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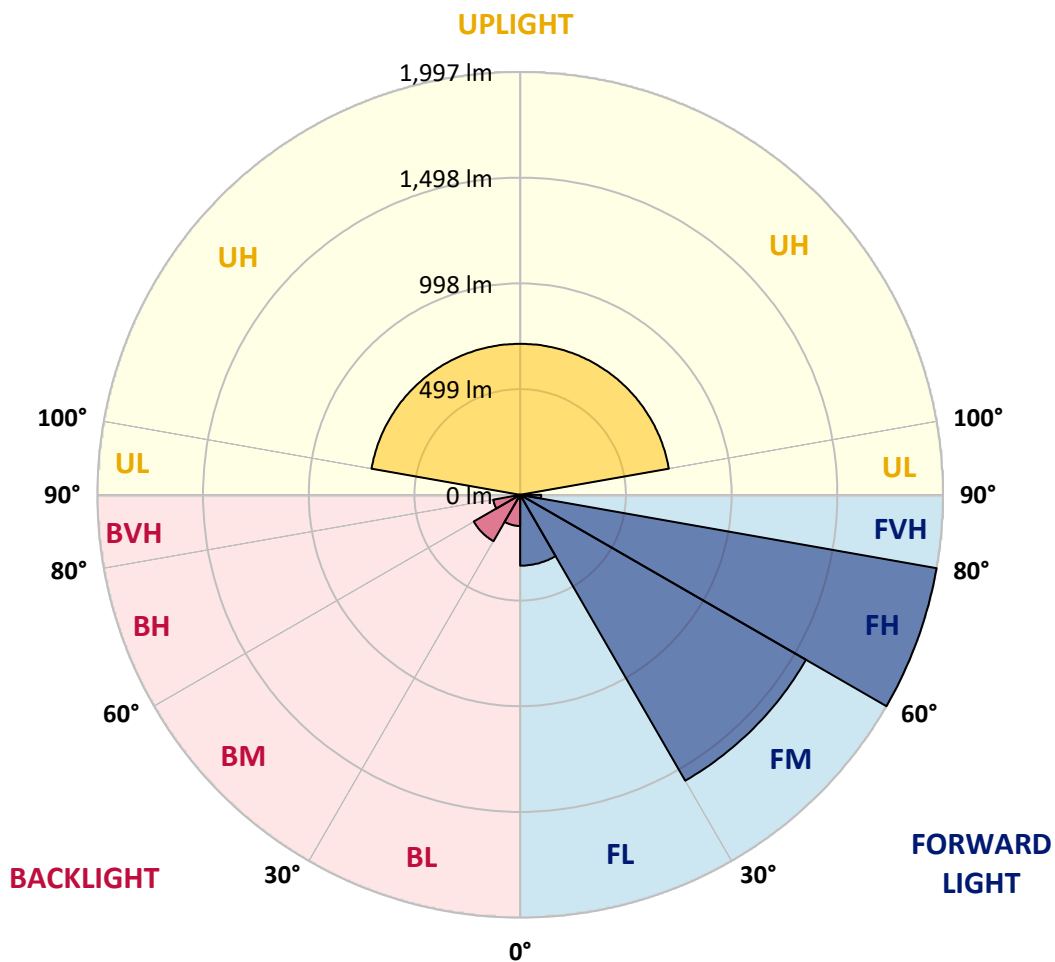
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	334.6	5.6			
FM	(30°-60°)	1558.9	26.2			
FH	(60°-80°)	1996.9	33.5			G2/5000
FVH	(80°-90°)	99.0	1.7			G1/100
BL	(0°-30°)	147.3	2.5	B1/500		
BM	(30°-60°)	253.0	4.2	B1/1000		
BH	(60°-80°)	129.4	2.2	B1/500		G1/500
BVH	(80°-90°)	7.0	0.1			G0/10
UL	(90°-100°)	4.7	0.1		U1/10	
UH	(100°-180°)	713.1	12.0		U4/1000	

BUG Rating: B1-U5-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	37.5°	38°	40°	42.5°	45°	47.5°
0°	738.6	738.6	738.6	738.6	738.6	738.6	738.6	738.6	738.6	738.6	738.6
2.5°	780.8	779.1	775.8	774.1	770.7	765.6	770.7	763.9	760.5	763.9	757.2
5°	794.3	792.7	789.3	782.5	779.1	770.7	775.8	767.3	765.6	769.0	760.5
7.5°	796.0	792.7	787.6	779.1	775.8	765.6	769.0	758.9	755.5	758.9	753.8
10°	791.0	789.3	784.2	770.7	767.3	763.9	762.2	755.5	753.8	752.1	750.4
12.5°	782.5	782.5	779.1	774.1	772.4	765.6	767.3	760.5	762.2	758.9	755.5
15°	779.1	777.4	780.8	784.2	784.2	774.1	780.8	775.8	772.4	774.1	769.0
17.5°	775.8	777.4	789.3	796.0	799.4	789.3	799.4	789.3	782.5	791.0	782.5
20°	774.1	779.1	799.4	814.6	816.3	799.4	816.3	799.4	799.4	809.6	794.3
22.5°	782.5	791.0	819.7	836.6	840.0	818.0	838.3	816.3	816.3	824.8	809.6
25°	809.6	818.0	850.1	868.7	865.3	841.7	860.3	838.3	836.6	846.7	826.5
27.5°	845.0	856.9	887.3	904.2	892.4	860.3	887.3	855.2	855.2	870.4	843.4
30°	895.8	904.2	931.2	932.9	917.7	878.8	909.3	873.8	868.7	895.8	861.9
32.5°	951.5	958.3	978.6	966.7	944.8	904.2	939.7	897.4	895.8	924.5	885.6
35°	1010.7	1017.4	1024.2	1003.9	983.6	939.7	978.6	936.3	934.6	966.7	929.6
37.5°	1071.5	1071.5	1071.5	1047.9	1034.3	992.1	1027.6	993.8	990.4	1024.2	988.7
40°	1120.5	1123.9	1118.8	1096.9	1090.1	1059.7	1090.1	1059.7	1064.8	1095.2	1066.5
42.5°	1161.1	1164.5	1166.2	1147.6	1154.3	1137.4	1161.1	1139.1	1140.8	1174.6	1157.7
45°	1201.7	1200.0	1213.5	1208.4	1228.7	1230.4	1243.9	1235.5	1238.8	1264.2	1259.1
47.5°	1243.9	1235.5	1250.7	1272.6	1309.8	1321.7	1330.1	1333.5	1347.0	1358.8	1370.7
50°	1284.5	1276.0	1286.2	1335.2	1394.3	1419.7	1421.4	1438.3	1453.5	1470.4	1494.0
52.5°	1326.7	1320.0	1330.1	1399.4	1494.0	1529.5	1524.5	1553.2	1575.2	1593.8	1632.6
55°	1370.7	1363.9	1374.0	1477.1	1600.5	1649.5	1644.5	1685.0	1727.3	1734.0	1778.0
57.5°	1412.9	1404.5	1433.2	1568.4	1727.3	1801.6	1778.0	1840.5	1881.1	1877.7	1938.5
60°	1458.6	1451.8	1497.4	1680.0	1886.1	1982.5	1947.0	2029.8	2058.5	2046.7	2104.2
62.5°	1502.5	1500.8	1576.9	1810.1	2078.8	2171.8	2139.7	2212.3	2232.6	2217.4	2246.1
65°	1543.1	1553.2	1663.1	1940.2	2264.7	2371.2	2327.3	2399.9	2423.6	2411.8	2460.8
67.5°	1610.7	1622.5	1769.5	2105.9	2494.6	2604.4	2567.3	2643.3	2678.8	2675.4	2729.5
70°	1710.4	1732.3	1926.7	2340.8	2844.4	2984.7	2964.4	3057.4	3143.6	3136.8	3190.9
72.5°	1884.5	1919.9	2185.3	2705.8	3419.1	3589.8	3566.1	3618.5	3603.3	3479.9	3380.2
74°	1850.7	1894.6	2249.5	2896.8	3677.6	3785.8	3746.9	3748.6	3610.0	3422.4	3261.9
75°	1727.3	1772.9	2156.6	2873.2	3659.1	3718.2	3662.4	3593.1	3425.8	3234.8	3037.1
77.5°	1184.8	1243.9	1585.3	2320.5	2945.8	2864.7	2851.2	2719.4	2498.0	2283.3	2029.8
80°	606.7	649.0	819.7	1213.5	1747.6	1666.4	1693.5	1587.0	1402.8	1247.3	988.7
82.5°	145.3	155.5	241.7	469.8	757.2	692.9	703.1	622.0	515.5	420.8	326.2
85°	76.1	86.2	118.3	130.1	199.4	206.2	201.1	194.4	158.9	133.5	116.6
87.5°	0.0	0.0	0.0	3.4	1.7	0.0	1.7	0.0	0.0	1.7	3.4
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	5.2	5.5	6.5	7.8	9.0	10.0
100°	8.0	8.0	10.0	14.0	22.0	24.0	24.4	26.0	28.0	30.0	30.5
102.5°	28.0	28.0	32.0	38.0	45.0	46.2	46.5	47.5	48.8	50.0	50.2
105°	54.0	54.0	56.0	61.0	66.0	67.0	67.2	68.0	69.0	70.0	70.2
107.5°	78.0	77.0	80.0	84.0	88.0	88.8	88.9	89.5	90.2	91.0	91.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	37.5°	38°	40°	42.5°	45°	47.5°
110°	101.0	102.0	103.0	106.0	110.0	110.5	110.6	111.0	111.5	112.0	112.5
112.5°	124.0	124.0	126.0	129.0	132.0	132.5	132.6	133.0	133.5	134.0	134.5
115°	146.0	147.0	149.0	151.0	154.0	154.5	154.6	155.0	155.5	156.0	156.5
117.5°	169.0	170.0	172.0	174.0	177.0	177.5	177.6	178.0	178.5	179.0	179.2
120°	193.0	195.0	196.0	198.0	201.0	201.2	201.3	201.5	201.8	202.0	202.5
122.5°	219.0	220.0	221.0	223.0	226.0	226.2	226.3	226.5	226.8	227.0	227.2
125°	244.0	246.0	247.0	248.0	251.0	251.2	251.3	251.5	251.8	252.0	252.2
127.5°	267.0	269.0	270.0	272.0	274.0	274.5	274.6	275.0	275.5	276.0	276.5
130°	290.0	292.0	293.0	294.0	298.0	298.2	298.3	298.5	298.8	299.0	299.5
132.5°	313.0	314.0	317.0	318.0	321.0	321.2	321.3	321.5	321.8	322.0	322.8
135°	336.0	337.0	339.0	341.0	345.0	345.0	345.0	345.0	345.0	345.0	345.8
137.5°	359.0	360.0	363.0	364.0	367.0	367.0	367.0	367.0	367.0	367.0	367.5
140°	382.0	383.0	385.0	386.0	388.0	388.2	388.3	388.5	388.8	389.0	389.2
142.5°	404.0	406.0	408.0	407.0	410.0	410.0	410.0	410.0	410.0	410.0	410.5
145°	425.0	426.0	428.0	428.0	431.0	431.2	431.3	431.5	431.8	432.0	432.5
147.5°	444.0	444.0	447.0	448.0	452.0	452.2	452.3	452.5	452.8	453.0	453.2
150°	461.0	462.0	464.0	465.0	469.0	469.2	469.3	469.5	469.8	470.0	470.2
152.5°	479.0	480.0	483.0	482.0	485.0	485.2	485.3	485.5	485.8	486.0	486.2
155°	499.0	500.0	502.0	501.0	503.0	503.0	503.0	503.0	503.0	503.0	503.2
157.5°	513.0	515.0	517.0	516.0	519.0	519.0	519.0	519.0	519.0	519.0	519.0
160°	525.0	527.0	529.0	529.0	532.0	532.0	532.0	532.0	532.0	532.0	532.0
162.5°	535.0	536.0	539.0	538.0	541.0	541.0	541.0	541.0	541.0	541.0	541.2
165°	546.0	547.0	549.0	548.0	552.0	552.0	552.0	552.0	552.0	552.0	552.2
167.5°	555.0	556.0	559.0	558.0	561.0	560.8	560.7	560.5	560.2	560.0	560.0
170°	562.0	563.0	566.0	565.0	567.0	566.8	566.7	566.5	566.2	566.0	565.8
172.5°	565.0	566.0	569.0	567.0	569.0	568.8	568.7	568.5	568.2	568.0	568.2
175°	567.0	569.0	570.0	569.0	572.0	572.0	572.0	572.0	572.0	572.0	572.2
177.5°	572.0	573.0	575.0	574.0	578.0	577.8	577.7	577.5	577.2	577.0	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):

	50°	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°
0°	738.6	738.6	738.6	738.6	738.6	738.6	738.6	738.6	738.6	738.6	738.6
2.5°	762.2	758.9	762.2	752.1	757.2	748.7	752.1	743.6	747.0	740.3	742.0
5°	765.6	757.2	762.2	753.8	755.5	748.7	747.0	743.6	742.0	736.9	733.5
7.5°	757.2	750.4	748.7	745.3	740.3	742.0	735.2	733.5	728.4	728.4	718.3
10°	748.7	750.4	740.3	743.6	735.2	736.9	725.1	728.4	720.0	726.7	711.5
12.5°	755.5	757.2	748.7	753.8	738.6	742.0	731.8	736.9	725.1	733.5	714.9
15°	770.7	769.0	765.6	765.6	750.4	757.2	745.3	748.7	736.9	747.0	726.7
17.5°	784.2	782.5	777.4	775.8	765.6	767.3	755.5	762.2	748.7	757.2	736.9
20°	799.4	791.0	789.3	787.6	775.8	775.8	767.3	770.7	757.2	767.3	743.6
22.5°	811.2	804.5	802.8	796.0	787.6	791.0	779.1	780.8	767.3	777.4	757.2
25°	829.8	821.4	821.4	811.2	806.2	804.5	797.7	802.8	789.3	796.0	777.4
27.5°	855.2	836.6	843.4	833.2	829.8	828.1	824.8	828.1	818.0	823.1	804.5
30°	878.8	855.2	865.3	851.8	858.6	851.8	856.9	851.8	851.8	851.8	843.4
32.5°	911.0	882.2	902.5	882.2	895.8	885.6	902.5	892.4	899.1	897.4	894.1
35°	956.6	922.8	951.5	924.5	948.1	934.6	958.3	953.2	966.7	960.0	966.7
37.5°	1017.4	981.9	1015.7	990.4	1019.1	998.8	1032.6	1029.3	1058.0	1047.9	1058.0
40°	1093.5	1068.1	1093.5	1074.9	1105.3	1096.9	1132.4	1134.1	1166.2	1161.1	1172.9
42.5°	1178.0	1159.4	1184.8	1174.6	1205.0	1211.8	1252.4	1262.5	1292.9	1301.4	1303.1
45°	1269.3	1265.9	1286.2	1296.3	1326.7	1347.0	1382.5	1407.8	1441.7	1460.2	1456.9
47.5°	1375.7	1389.3	1402.8	1428.1	1455.2	1497.4	1532.9	1565.0	1603.9	1615.7	1620.8
50°	1495.7	1519.4	1531.2	1566.7	1593.8	1646.2	1695.2	1735.7	1778.0	1772.9	1776.3
52.5°	1622.5	1652.9	1669.8	1712.1	1747.6	1808.4	1850.7	1889.5	1941.9	1928.4	1923.3
55°	1762.8	1808.4	1821.9	1869.2	1899.7	1962.2	1999.4	2067.0	2089.0	2075.4	2046.7
57.5°	1911.5	1965.6	1980.8	2045.0	2060.2	2127.8	2159.9	2205.6	2224.2	2202.2	2165.0
60°	2080.5	2129.5	2141.4	2198.8	2219.1	2281.6	2305.3	2345.9	2359.4	2305.3	2252.9
62.5°	2249.5	2300.2	2307.0	2357.7	2378.0	2432.0	2459.1	2482.7	2476.0	2396.6	2330.6
65°	2442.2	2491.2	2508.1	2558.8	2570.6	2611.2	2633.2	2606.1	2590.9	2470.9	2396.6
67.5°	2748.1	2800.5	2807.2	2819.1	2817.4	2797.1	2787.0	2694.0	2626.4	2405.0	2298.5
70°	3150.3	3111.5	3035.4	2947.5	2883.3	2768.4	2700.8	2509.8	2367.8	2119.4	1940.2
72.5°	3223.0	3096.3	2908.7	2758.2	2602.7	2421.9	2276.6	1987.6	1788.1	1527.8	1338.6
74°	3016.8	2810.6	2612.9	2401.6	2222.5	1958.8	1811.8	1446.7	1249.0	985.3	755.5
75°	2768.4	2526.7	2303.6	2034.9	1867.6	1551.5	1412.9	1019.1	821.4	584.8	393.8
77.5°	1766.1	1477.1	1264.2	953.2	823.1	567.9	415.8	258.6	191.0	167.3	145.3
80°	792.7	564.5	447.9	309.3	258.6	197.7	167.3	135.2	123.4	108.2	103.1
82.5°	253.5	202.8	192.7	172.4	172.4	138.6	118.3	93.0	84.5	72.7	65.9
85°	109.9	103.1	106.5	98.0	99.7	76.1	60.8	45.6	45.6	32.1	28.7
87.5°	3.4	0.0	1.7	0.0	3.4	0.0	1.7	0.0	1.7	0.0	1.7
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°	11.0	12.0	13.0	11.5	10.0	8.5	7.0	6.5	6.0	5.5	5.0
100°	31.0	31.5	32.0	31.5	31.0	30.5	30.0	29.2	28.5	27.8	27.0
102.5°	50.5	50.8	51.0	50.8	50.5	50.2	50.0	49.5	49.0	48.5	48.0
105°	70.5	70.8	71.0	71.0	71.0	71.0	71.0	70.5	70.0	69.5	69.0
107.5°	92.0	92.5	93.0	92.8	92.5	92.2	92.0	91.8	91.5	91.2	91.0



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CANDELA DISTRIBUTION (continued):

	50°	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°
110°	113.0	113.5	114.0	114.0	114.0	114.0	114.0	113.8	113.5	113.2	113.0
112.5°	135.0	135.5	136.0	136.0	136.0	136.0	136.0	135.8	135.5	135.2	135.0
115°	157.0	157.5	158.0	158.0	158.0	158.0	158.0	158.0	158.0	158.0	158.0
117.5°	179.5	179.8	180.0	180.2	180.5	180.8	181.0	180.8	180.5	180.2	180.0
120°	203.0	203.5	204.0	204.0	204.0	204.0	204.0	204.0	204.0	204.0	204.0
122.5°	227.5	227.8	228.0	228.0	228.0	228.0	228.0	228.2	228.5	228.8	229.0
125°	252.5	252.8	253.0	253.2	253.5	253.8	254.0	254.0	254.0	254.0	254.0
127.5°	277.0	277.5	278.0	277.8	277.5	277.2	277.0	277.2	277.5	277.8	278.0
130°	300.0	300.5	301.0	301.0	301.0	301.0	301.0	301.2	301.5	301.8	302.0
132.5°	323.5	324.2	325.0	325.0	325.0	325.0	325.0	325.2	325.5	325.8	326.0
135°	346.5	347.2	348.0	348.0	348.0	348.0	348.0	348.2	348.5	348.8	349.0
137.5°	368.0	368.5	369.0	369.0	369.0	369.0	369.0	369.2	369.5	369.8	370.0
140°	389.5	389.8	390.0	390.0	390.0	390.0	390.0	390.5	391.0	391.5	392.0
142.5°	411.0	411.5	412.0	412.0	412.0	412.0	412.0	412.2	412.5	412.8	413.0
145°	433.0	433.5	434.0	433.8	433.5	433.2	433.0	433.2	433.5	433.8	434.0
147.5°	453.5	453.8	454.0	453.5	453.0	452.5	452.0	452.2	452.5	452.8	453.0
150°	470.5	470.8	471.0	470.5	470.0	469.5	469.0	469.0	469.0	469.0	469.0
152.5°	486.5	486.8	487.0	486.8	486.5	486.2	486.0	486.0	486.0	486.0	486.0
155°	503.5	503.8	504.0	503.8	503.5	503.2	503.0	503.2	503.5	503.8	504.0
157.5°	519.0	519.0	519.0	518.5	518.0	517.5	517.0	517.2	517.5	517.8	518.0
160°	532.0	532.0	532.0	531.5	531.0	530.5	530.0	530.0	530.0	530.0	530.0
162.5°	541.5	541.8	542.0	541.5	541.0	540.5	540.0	539.5	539.0	538.5	538.0
165°	552.5	552.8	553.0	552.2	551.5	550.8	550.0	549.5	549.0	548.5	548.0
167.5°	560.0	560.0	560.0	559.5	559.0	558.5	558.0	558.2	558.5	558.8	559.0
170°	565.5	565.2	565.0	564.8	564.5	564.2	564.0	564.5	565.0	565.5	566.0
172.5°	568.5	568.8	569.0	568.5	568.0	567.5	567.0	567.2	567.5	567.8	568.0
175°	572.5	572.8	573.0	572.2	571.5	570.8	570.0	569.5	569.0	568.5	568.0
177.5°	577.0	577.0	577.0	576.2	575.5	574.8	574.0	574.0	574.0	574.0	574.0
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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CATALOG NUMBER: ISS-AF-1000-LED-E1-SL4-7030-ULG

CANDELA DISTRIBUTION (continued):

	77.5°	80°	85°	90°	95°	100°	102.5°	105°	107.5°	110°	112.5°
0°	738.6	738.6	738.6	738.6	738.6	738.6	738.6	738.6	738.6	738.6	738.6
2.5°	735.2	738.6	736.9	730.1	728.4	723.4	711.5	713.2	706.5	711.5	703.1
5°	728.4	726.7	720.0	711.5	703.1	692.9	684.5	681.1	674.3	671.0	665.9
7.5°	718.3	711.5	699.7	686.2	674.3	660.8	654.1	642.2	638.9	627.0	625.3
10°	714.9	703.1	689.6	672.7	652.4	632.1	630.4	610.1	608.4	589.8	584.8
12.5°	721.7	706.5	689.6	669.3	645.6	616.9	616.9	586.5	584.8	559.4	551.0
15°	735.2	716.6	694.6	671.0	640.5	605.1	603.4	567.9	564.5	534.1	523.9
17.5°	747.0	721.7	701.4	669.3	633.8	593.2	584.8	549.3	542.5	507.0	493.5
20°	755.5	726.7	703.1	665.9	622.0	574.6	562.8	525.6	510.4	474.9	456.3
22.5°	765.6	738.6	706.5	664.2	615.2	559.4	534.1	500.3	478.3	441.1	415.8
25°	780.8	757.2	718.3	669.3	610.1	544.2	510.4	474.9	444.5	407.3	370.1
27.5°	804.5	780.8	735.2	676.0	608.4	529.0	491.8	447.9	410.7	370.1	327.9
30°	838.3	812.9	763.9	694.6	610.1	517.2	471.5	424.2	380.3	332.9	289.0
32.5°	882.2	861.9	801.1	714.9	616.9	507.0	452.9	398.9	344.8	299.1	260.3
35°	943.1	929.6	853.5	753.8	633.8	502.0	434.4	375.2	314.4	268.7	226.5
37.5°	1032.6	1014.1	929.6	809.6	660.8	498.6	420.8	346.5	289.0	240.0	204.5
40°	1145.9	1120.5	1019.1	877.2	703.1	500.3	409.0	324.5	267.0	214.6	185.9
42.5°	1281.1	1243.9	1129.0	960.0	745.3	503.6	402.2	304.2	250.1	194.4	172.4
45°	1433.2	1390.9	1259.1	1063.1	806.2	512.1	397.2	287.3	234.9	179.2	163.9
47.5°	1581.9	1539.7	1392.6	1166.2	868.7	527.3	400.6	277.2	224.8	170.7	153.8
50°	1727.3	1683.3	1510.9	1259.1	922.8	547.6	414.1	278.9	223.1	167.3	148.7
52.5°	1855.7	1801.6	1612.4	1331.8	961.7	561.1	425.9	283.9	224.8	165.6	147.0
55°	1984.2	1914.9	1693.5	1389.3	985.3	562.8	425.9	285.6	226.5	165.6	145.3
57.5°	2080.5	2001.1	1756.0	1423.1	993.8	554.4	415.8	277.2	216.3	163.9	142.0
60°	2141.4	2056.8	1800.0	1445.0	981.9	518.9	361.7	245.1	191.0	152.1	131.8
62.5°	2192.1	2105.9	1813.5	1407.8	882.2	412.4	282.2	199.4	158.9	135.2	121.7
65°	2203.9	2100.8	1718.8	1243.9	689.6	285.6	204.5	157.2	130.1	120.0	109.9
67.5°	2024.7	1901.4	1445.0	973.5	469.8	196.1	152.1	128.4	111.5	106.5	103.1
70°	1646.2	1510.9	1058.0	637.2	262.0	136.9	116.6	106.5	96.3	96.3	91.3
72.5°	1061.4	921.1	542.5	272.1	133.5	104.8	94.6	91.3	82.8	84.5	79.4
74°	542.5	422.5	221.4	143.7	109.9	93.0	84.5	82.8	74.4	76.1	71.0
75°	275.5	218.0	155.5	120.0	101.4	87.9	77.7	77.7	67.6	69.3	64.2
77.5°	128.4	123.4	106.5	94.6	86.2	74.4	64.2	62.5	52.4	55.8	49.0
80°	89.6	89.6	82.8	79.4	71.0	60.8	49.0	49.0	38.9	40.6	35.5
82.5°	50.7	47.3	47.3	54.1	55.8	45.6	35.5	33.8	28.7	28.7	23.7
85°	22.0	25.4	30.4	37.2	40.6	35.5	25.4	23.7	15.2	15.2	8.5
87.5°	0.0	1.7	1.7	3.4	6.8	6.8	0.0	3.4	0.0	1.7	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°	4.8	4.5	4.0	4.0	4.0	4.5	4.8	5.0	5.5	6.0	6.5
100°	26.8	26.5	26.0	25.0	26.0	26.5	26.8	27.0	27.8	28.5	29.2
102.5°	48.2	48.5	49.0	48.0	49.0	48.5	48.2	48.0	48.5	49.0	49.5
105°	69.5	70.0	71.0	69.0	71.0	70.0	69.5	69.0	69.5	70.0	70.5
107.5°	91.2	91.5	92.0	91.0	92.0	91.5	91.2	91.0	91.2	91.5	91.8



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REPORT N
 CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	77.5°	80°	85°	90°	95°	100°	102.5°	105°	107.5°	110°	112.5°	
110°	113.2	113.5	114.0	113.0	114.0	113.5	113.2	113.0	113.2	113.5	113.8	0°
112.5°	135.5	136.0	137.0	135.0	137.0	136.0	135.5	135.0	135.2	135.5	135.8	2.5°
115°	158.5	159.0	160.0	159.0	160.0	159.0	158.5	158.0	158.0	158.0	158.0	5°
117.5°	180.5	181.0	182.0	180.0	182.0	181.0	180.5	180.0	180.2	180.5	180.8	7.5°
120°	204.5	205.0	206.0	204.0	206.0	205.0	204.5	204.0	204.0	204.0	204.0	10°
122.5°	230.0	231.0	233.0	232.0	233.0	231.0	230.0	229.0	228.8	228.5	228.2	12.5°
125°	254.8	255.5	257.0	256.0	257.0	255.5	254.8	254.0	254.0	254.0	254.0	15°
127.5°	278.8	279.5	281.0	278.0	281.0	279.5	278.8	278.0	277.8	277.5	277.2	17.5°
130°	302.8	303.5	305.0	303.0	305.0	303.5	302.8	302.0	301.8	301.5	301.2	20°
132.5°	326.8	327.5	329.0	327.0	329.0	327.5	326.8	326.0	325.8	325.5	325.2	22.5°
135°	349.5	350.0	351.0	350.0	351.0	350.0	349.5	349.0	348.8	348.5	348.2	25°
137.5°	371.0	372.0	374.0	372.0	374.0	372.0	371.0	370.0	369.8	369.5	369.2	27.5°
140°	393.0	394.0	396.0	394.0	396.0	394.0	393.0	392.0	391.5	391.0	390.5	30°
142.5°	413.8	414.5	416.0	415.0	416.0	414.5	413.8	413.0	412.8	412.5	412.2	32.5°
145°	434.8	435.5	437.0	435.0	437.0	435.5	434.8	434.0	433.8	433.5	433.2	35°
147.5°	453.8	454.5	456.0	453.0	456.0	454.5	453.8	453.0	452.8	452.5	452.2	37.5°
150°	470.0	471.0	473.0	470.0	473.0	471.0	470.0	469.0	469.0	469.0	469.0	40°
152.5°	486.8	487.5	489.0	486.0	489.0	487.5	486.8	486.0	486.0	486.0	486.0	42.5°
155°	504.8	505.5	507.0	505.0	507.0	505.5	504.8	504.0	503.8	503.5	503.2	45°
157.5°	519.2	520.5	523.0	520.0	523.0	520.5	519.2	518.0	517.8	517.5	517.2	47.5°
160°	530.8	531.5	533.0	531.0	533.0	531.5	530.8	530.0	530.0	530.0	530.0	50°
162.5°	538.5	539.0	540.0	537.0	540.0	539.0	538.5	538.0	538.5	539.0	539.5	52.5°
165°	548.5	549.0	550.0	548.0	550.0	549.0	548.5	548.0	548.5	549.0	549.5	55°
167.5°	560.0	561.0	563.0	561.0	563.0	561.0	560.0	559.0	558.8	558.5	558.2	57.5°
170°	567.2	568.5	571.0	569.0	571.0	568.5	567.2	566.0	565.5	565.0	564.5	60°
172.5°	568.8	569.5	571.0	568.0	571.0	569.5	568.8	568.0	567.8	567.5	567.2	62.5°
175°	568.8	569.5	571.0	568.0	571.0	569.5	568.8	568.0	568.5	569.0	569.5	65°
177.5°	574.8	575.5	577.0	574.0	577.0	575.5	574.8	574.0	574.0	574.0	574.0	67.5°
180°	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	70°
												72.5°
												74°
												75°
												77.5°
												80°
												82.5°
												85°
												87.5°
												90°
												92.5°
												95°
												97.5°
												100°
												102.5°
												105°
												107.5°

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DISTRIBUTION (continued):

CANDELA DISTRIBUTION

115°	117.5°	120°	122.5°	125°	127.5°	130°	135°	145°	155°	165°	110°	115°
738.6	738.6	738.6	738.6	738.6	738.6	738.6	738.6	738.6	738.6	738.6	110°	114.0
706.5	698.0	703.1	694.6	698.0	689.6	692.9	687.9	682.8	676.0	674.3	112.5°	136.0
660.8	654.1	652.4	643.9	645.6	638.9	632.1	623.6	613.5	600.0	594.9	115°	158.0
610.1	608.4	596.6	591.5	584.8	578.0	566.2	552.7	532.4	513.8	502.0	117.5°	181.0
566.2	561.1	544.2	535.8	525.6	517.2	500.3	481.7	452.9	424.2	409.0	120°	204.0
529.0	522.2	500.3	490.1	474.9	464.8	444.5	420.8	380.3	339.7	321.1	122.5°	228.0
498.6	488.4	463.1	447.9	427.6	417.5	395.5	361.7	312.7	270.4	245.1	125°	254.0
463.1	449.6	422.5	403.9	383.7	365.1	343.1	307.6	251.8	213.0	187.6	127.5°	277.0
424.2	407.3	378.6	353.2	331.3	314.4	292.4	256.9	201.1	170.7	157.2	130°	301.0
383.7	356.6	331.3	309.3	283.9	267.0	245.1	213.0	170.7	153.8	148.7	132.5°	325.0
341.4	311.0	285.6	263.7	240.0	224.8	206.2	180.8	155.5	150.4	150.4	135°	348.0
299.1	268.7	245.1	223.1	202.8	192.7	175.8	158.9	147.0	148.7	150.4	137.5°	369.0
260.3	229.9	207.9	191.0	172.4	165.6	152.1	142.0	140.3	145.3	147.0	140°	390.0
226.5	199.4	179.2	165.6	150.4	147.0	135.2	130.1	135.2	142.0	140.3	142.5°	412.0
197.7	175.8	155.5	147.0	133.5	131.8	123.4	120.0	126.8	135.2	135.2	145°	433.0
175.8	155.5	140.3	133.5	123.4	121.7	114.9	111.5	116.6	128.4	131.8	147.5°	452.0
157.2	145.3	130.1	123.4	116.6	113.2	109.9	106.5	108.2	123.4	125.1	150°	469.0
145.3	136.9	123.4	120.0	111.5	109.9	104.8	101.4	103.1	114.9	120.0	152.5°	486.0
136.9	130.1	118.3	116.6	108.2	106.5	101.4	98.0	99.7	109.9	114.9	155°	503.0
130.1	123.4	113.2	109.9	104.8	103.1	99.7	96.3	96.3	106.5	111.5	157.5°	517.0
126.8	120.0	109.9	106.5	101.4	99.7	96.3	93.0	94.6	103.1	106.5	160°	530.0
125.1	116.6	108.2	103.1	99.7	96.3	93.0	89.6	91.3	99.7	103.1	162.5°	540.0
125.1	114.9	108.2	103.1	98.0	93.0	91.3	86.2	89.6	96.3	101.4	165°	550.0
125.1	114.9	108.2	103.1	99.7	94.6	91.3	87.9	89.6	96.3	101.4	167.5°	558.0
121.7	113.2	109.9	104.8	103.1	98.0	96.3	93.0	93.0	101.4	109.9	170°	564.0
116.6	111.5	109.9	106.5	106.5	103.1	103.1	99.7	99.7	109.9	118.3	172.5°	567.0
109.9	106.5	108.2	106.5	106.5	106.5	104.8	104.8	104.8	113.2	123.4	175°	570.0
103.1	101.4	103.1	103.1	104.8	103.1	104.8	103.1	103.1	111.5	121.7	177.5°	574.0
93.0	93.0	94.6	93.0	94.6	94.6	96.3	96.3	96.3	101.4	111.5	180°	576.0
81.1	79.4	81.1	79.4	82.8	79.4	82.8	84.5	82.8	84.5	89.6		
72.7	71.0	72.7	71.0	74.4	71.0	72.7	72.7	71.0	57.5	49.0		
65.9	64.2	65.9	64.2	67.6	64.2	67.6	65.9	62.5	42.3	40.6		
52.4	47.3	52.4	47.3	50.7	45.6	49.0	42.3	32.1	30.4	30.4		
38.9	33.8	37.2	32.1	30.4	23.7	25.4	23.7	22.0	23.7	23.7		
23.7	16.9	20.3	15.2	18.6	13.5	16.9	15.2	13.5	13.5	13.5		
11.8	8.5	11.8	6.8	10.1	6.8	8.5	8.5	5.1	5.1	5.1		
1.7	0.0	3.4	0.0	3.4	0.0	1.7	1.7	0.0	0.0	0.0		
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		
7.0	8.5	10.0	11.5	13.0	12.0	11.0	9.0	4.0	3.0	2.0		
30.0	30.5	31.0	31.5	32.0	31.5	31.0	30.0	22.0	14.0	10.0		
50.0	50.2	50.5	50.8	51.0	50.8	50.5	50.0	45.0	38.0	32.0		
71.0	71.0	71.0	71.0	71.0	70.8	70.5	70.0	66.0	61.0	56.0		
92.0	92.2	92.5	92.8	93.0	92.5	92.0	91.0	88.0	84.0	80.0		

'228339
 ISS-AF-1000-LED-E1-SL4-7030-ULG

REPORT NUMBER: P228339
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TION (continued):

CANDELA DISTRIBUTION (con

117.5°	120°	122.5°	125°	127.5°	130°	135°	145°	155°	165°		175°	180°
114.0	114.0	114.0	114.0	113.5	113.0	112.0	110.0	106.0	103.0	0°	738.6	738.6
136.0	136.0	136.0	136.0	135.5	135.0	134.0	132.0	129.0	126.0	2.5°	669.3	671.0
158.0	158.0	158.0	158.0	157.5	157.0	156.0	154.0	151.0	149.0	5°	586.5	591.5
180.8	180.5	180.2	180.0	179.8	179.5	179.0	177.0	174.0	172.0	7.5°	495.2	498.6
204.0	204.0	204.0	204.0	203.5	203.0	202.0	201.0	198.0	196.0	10°	398.9	402.2
228.0	228.0	228.0	228.0	227.8	227.5	227.0	226.0	223.0	221.0	12.5°	307.6	311.0
253.8	253.5	253.2	253.0	252.8	252.5	252.0	251.0	248.0	247.0	15°	231.5	228.2
277.2	277.5	277.8	278.0	277.5	277.0	276.0	274.0	272.0	270.0	17.5°	177.5	174.1
301.0	301.0	301.0	301.0	300.5	300.0	299.0	298.0	294.0	293.0	20°	150.4	150.4
325.0	325.0	325.0	325.0	324.2	323.5	322.0	321.0	318.0	317.0	22.5°	147.0	145.3
348.0	348.0	348.0	348.0	347.2	346.5	345.0	345.0	341.0	339.0	25°	148.7	147.0
369.0	369.0	369.0	369.0	368.5	368.0	367.0	367.0	364.0	363.0	27.5°	148.7	147.0
390.0	390.0	390.0	390.0	389.8	389.5	389.0	388.0	386.0	385.0	30°	145.3	143.7
412.0	412.0	412.0	412.0	411.5	411.0	410.0	410.0	407.0	408.0	32.5°	140.3	138.6
433.2	433.5	433.8	434.0	433.5	433.0	432.0	431.0	428.0	428.0	35°	135.2	135.2
452.5	453.0	453.5	454.0	453.8	453.5	453.0	452.0	448.0	447.0	37.5°	131.8	133.5
469.5	470.0	470.5	471.0	470.8	470.5	470.0	469.0	465.0	464.0	40°	126.8	128.4
486.2	486.5	486.8	487.0	486.8	486.5	486.0	485.0	482.0	483.0	42.5°	121.7	123.4
503.2	503.5	503.8	504.0	503.8	503.5	503.0	503.0	501.0	502.0	45°	116.6	118.3
517.5	518.0	518.5	519.0	519.0	519.0	519.0	519.0	516.0	517.0	47.5°	111.5	111.5
530.5	531.0	531.5	532.0	532.0	532.0	532.0	532.0	529.0	529.0	50°	104.8	104.8
540.5	541.0	541.5	542.0	541.8	541.5	541.0	541.0	538.0	539.0	52.5°	103.1	103.1
550.8	551.5	552.2	553.0	552.8	552.5	552.0	552.0	548.0	549.0	55°	103.1	103.1
558.5	559.0	559.5	560.0	560.0	560.0	560.0	561.0	558.0	559.0	57.5°	106.5	106.5
564.2	564.5	564.8	565.0	565.2	565.5	566.0	567.0	565.0	566.0	60°	116.6	118.3
567.5	568.0	568.5	569.0	568.8	568.5	568.0	569.0	567.0	569.0	62.5°	136.9	138.6
570.8	571.5	572.2	573.0	572.8	572.5	572.0	572.0	569.0	570.0	65°	157.2	160.6
574.8	575.5	576.2	577.0	577.0	577.0	577.0	577.0	578.0	574.0	67.5°	158.9	163.9
576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	70°	153.8	158.9
										72.5°	106.5	106.5
										74°	47.3	45.6
										75°	40.6	38.9
										77.5°	30.4	30.4
										80°	22.0	20.3
										82.5°	11.8	11.8
										85°	3.4	3.4
										87.5°	0.0	0.0
										90°	0.0	0.0
										92.5°	0.0	0.0
										95°	1.0	1.0
										97.5°	2.0	2.0
										100°	8.0	8.0
										102.5°	28.0	28.0
										105°	54.0	54.0
										107.5°	77.0	78.0



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CANDELA DISTRIBUTION (continued):

	175°	180°
110°	102.0	101.0
112.5°	124.0	124.0
115°	147.0	146.0
117.5°	170.0	169.0
120°	195.0	193.0
122.5°	220.0	219.0
125°	246.0	244.0
127.5°	269.0	267.0
130°	292.0	290.0
132.5°	314.0	313.0
135°	337.0	336.0
137.5°	360.0	359.0
140°	383.0	382.0
142.5°	406.0	404.0
145°	426.0	425.0
147.5°	444.0	444.0
150°	462.0	461.0
152.5°	480.0	479.0
155°	500.0	499.0
157.5°	515.0	513.0
160°	527.0	525.0
162.5°	536.0	535.0
165°	547.0	546.0
167.5°	556.0	555.0
170°	563.0	562.0
172.5°	566.0	565.0
175°	569.0	567.0
177.5°	573.0	572.0
180°	576.0	576.0

(END OF REPORT)

Cooper Lighting Solutions Photometric Lab
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Scaled Data Report

