

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: P228334

Luminaire Tested: **ISS-AF-1200-LED-E1-SL4-7030-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P228334
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-1200-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: 6576.2 lumens
Efficiency: N/A
Efficacy: 79.5 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): 82.7
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

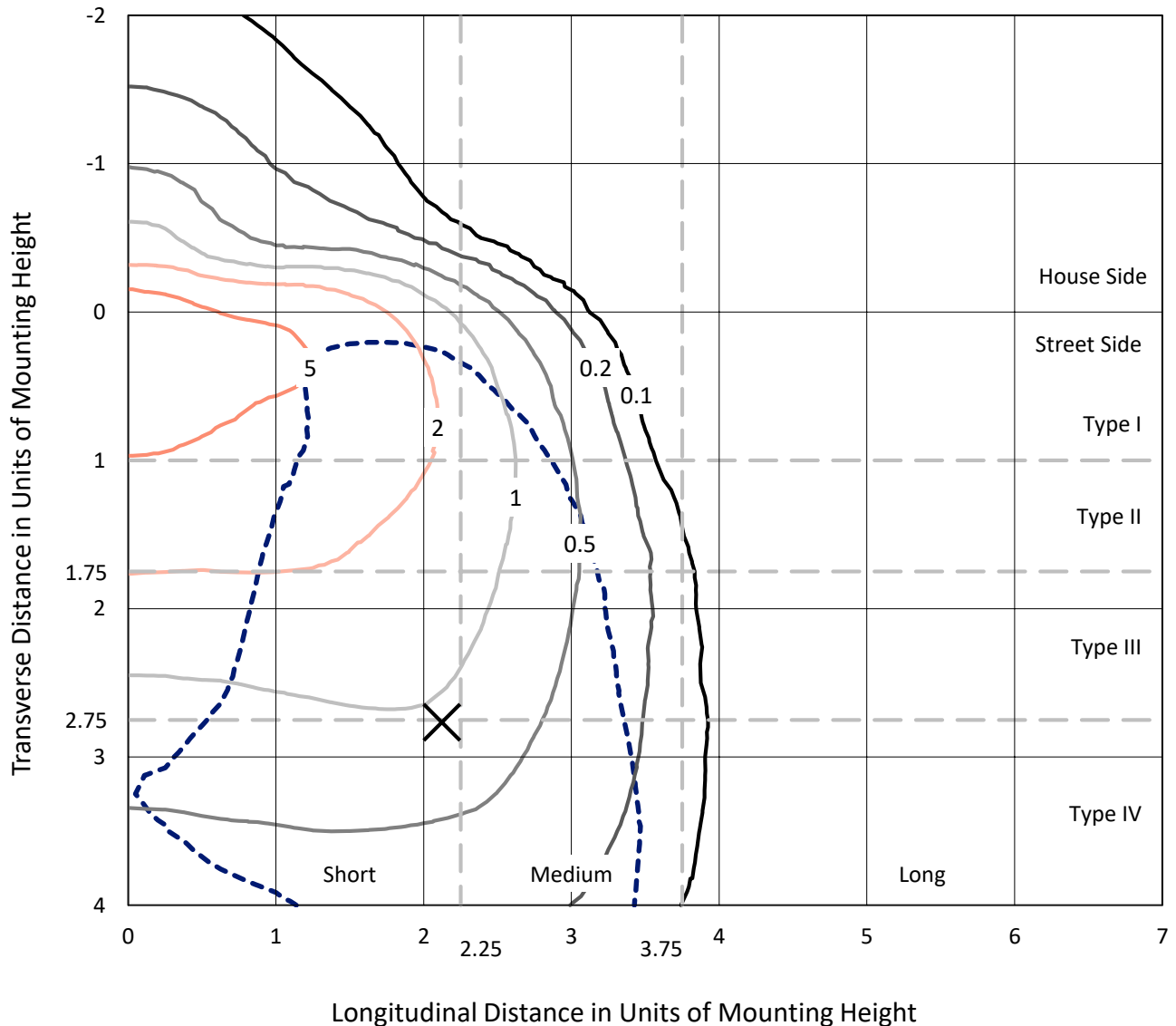


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Iso-Footcandle Lines of Horizontal Illumination

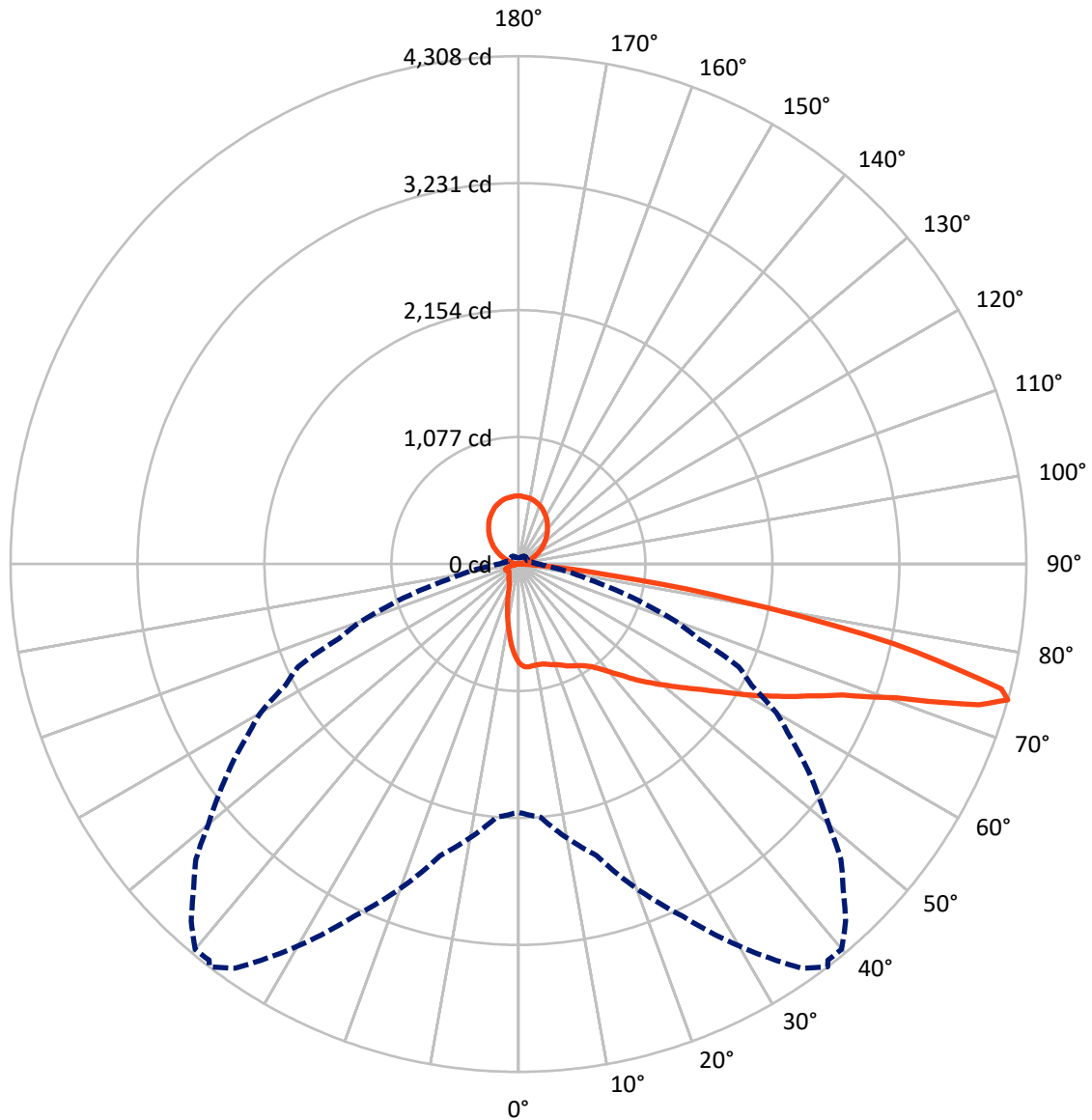
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.8 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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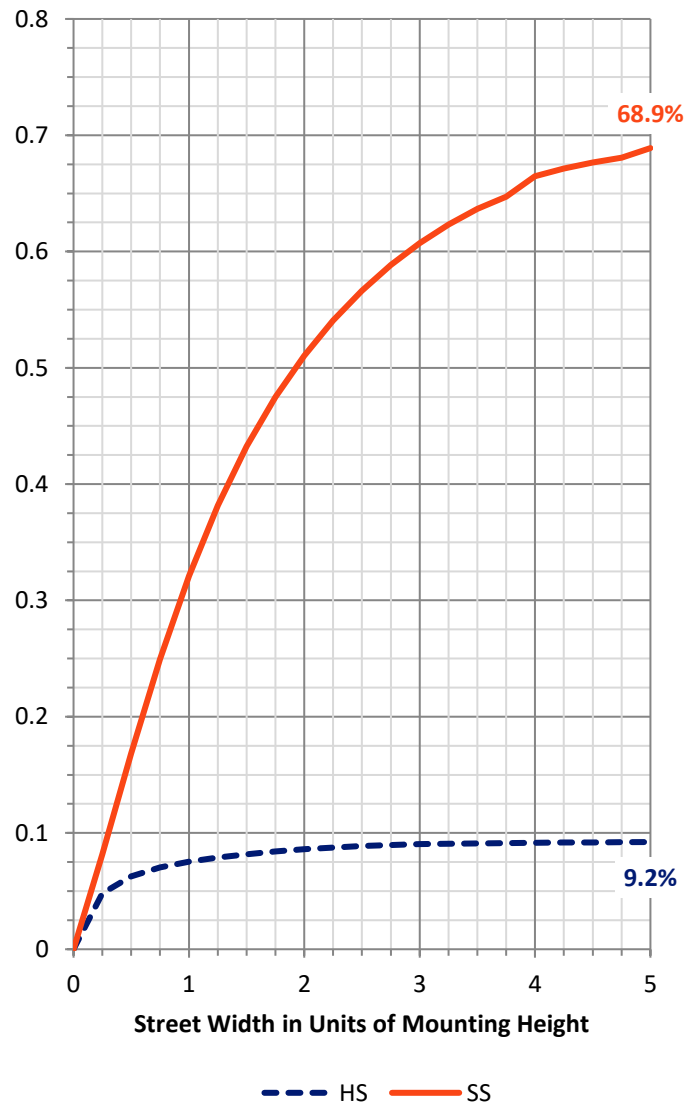
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	610.7	713.1	1323.7
	% Fixture	9.3	10.8	20.1
Street Side	Lumens	4539.3	713.1	5252.4
	% Fixture	69.0	10.8	79.9
Total	Lumens	5150.0	1426.2	6576.2
	% Fixture	78.3	21.7	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.2	1.1
10°-20°	186.4	2.8
20°-30°	288.8	4.4
30°-40°	428.4	6.5
40°-50°	659.1	10.0
50°-60°	974.2	14.8
60°-70°	1298.5	19.7
70°-80°	1120.9	17.0
80°-90°	120.6	1.8
90°-100°	4.7	0.1
100°-110°	69.0	1.0
110°-120°	153.0	2.3
120°-130°	223.9	3.4
130°-140°	265.6	4.0
140°-150°	269.3	4.1
150°-160°	231.1	3.5
160°-170°	155.1	2.4
170°-180°	54.3	0.8
0°-90°	5150.0	78.3
0°-180°	6576.2	100.0



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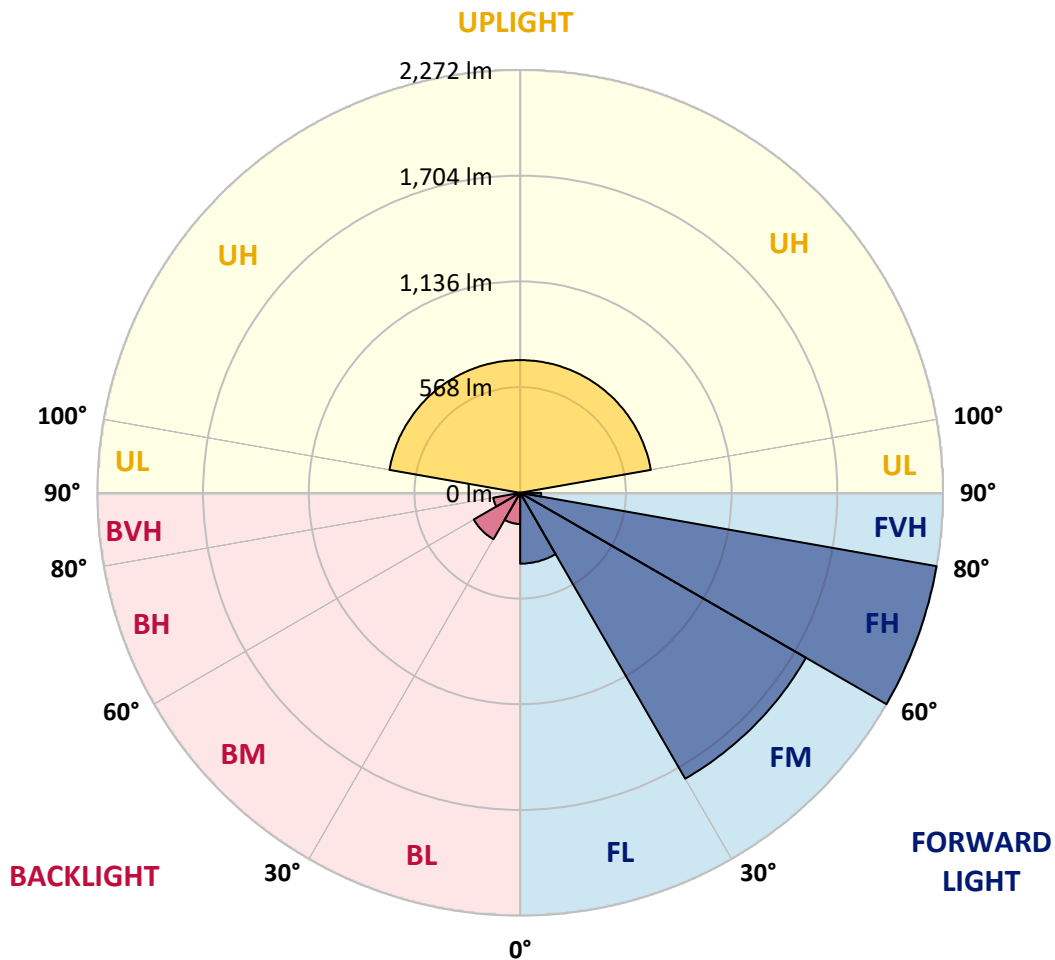
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	380.7	5.8			
FM	(30°-60°)	1773.8	27.0			
FH	(60°-80°)	2272.2	34.6			G2/5000
FVH	(80°-90°)	112.6	1.7			G2/225
BL	(0°-30°)	167.7	2.5	B1/500		
BM	(30°-60°)	287.8	4.4	B1/1000		
BH	(60°-80°)	147.2	2.2	B1/500		G1/500
BVH	(80°-90°)	7.9	0.1			G0/10
UL	(90°-100°)	4.7	0.1		U1/10	
UH	(100°-180°)	713.1	10.8		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°	840.4	840.4	840.4	840.4	840.4	840.4	840.4	840.4	840.4	840.4	840.4
2.5°	888.5	886.6	882.7	880.8	876.9	871.2	876.9	869.2	865.4	869.2	861.6
5°	903.9	901.9	898.1	890.4	886.6	876.9	882.7	873.1	871.2	875.0	865.4
7.5°	905.8	901.9	896.2	886.6	882.7	871.2	875.0	863.5	859.6	863.5	857.7
10°	900.0	898.1	892.3	876.9	873.1	869.2	867.3	859.6	857.7	855.8	853.9
12.5°	890.4	890.4	886.6	880.8	878.9	871.2	873.1	865.4	867.3	863.5	859.6
15°	886.6	884.6	888.5	892.3	892.3	880.8	888.5	882.7	878.9	880.8	875.0
17.5°	882.7	884.6	898.1	905.8	909.6	898.1	909.6	898.1	890.4	900.0	890.4
20°	880.8	886.6	909.6	926.9	928.9	909.6	928.9	909.6	909.6	921.2	903.9
22.5°	890.4	900.0	932.7	951.9	955.8	930.8	953.9	928.9	928.9	938.5	921.2
25°	921.2	930.8	967.3	988.5	984.6	957.7	978.9	953.9	951.9	963.5	940.4
27.5°	961.6	975.0	1009.6	1028.9	1015.4	978.9	1009.6	973.1	973.1	990.4	959.6
30°	1019.2	1028.9	1059.6	1061.6	1044.2	1000.0	1034.6	994.2	988.5	1019.2	980.8
32.5°	1082.7	1090.4	1113.5	1100.0	1075.0	1028.9	1069.2	1021.2	1019.2	1051.9	1007.7
35°	1150.0	1157.7	1165.4	1142.3	1119.2	1069.2	1113.5	1065.4	1063.5	1100.0	1057.7
37.5°	1219.3	1219.3	1219.3	1192.3	1176.9	1128.9	1169.3	1130.8	1126.9	1165.4	1125.0
40°	1275.0	1278.9	1273.1	1248.1	1240.4	1205.8	1240.4	1205.8	1211.6	1246.2	1213.5
42.5°	1321.2	1325.0	1326.9	1305.8	1313.5	1294.3	1321.2	1296.2	1298.1	1336.6	1317.3
45°	1367.3	1365.4	1380.8	1375.0	1398.1	1400.0	1415.4	1405.8	1409.6	1438.5	1432.7
47.5°	1415.4	1405.8	1423.1	1448.1	1490.4	1503.9	1513.5	1517.3	1532.7	1546.2	1559.6
50°	1461.6	1451.9	1463.5	1519.3	1586.6	1615.4	1617.3	1636.6	1653.9	1673.1	1700.0
52.5°	1509.6	1501.9	1513.5	1592.3	1700.0	1740.4	1734.6	1767.3	1792.3	1813.5	1857.7
55°	1559.6	1551.9	1563.5	1680.8	1821.2	1877.0	1871.2	1917.3	1965.4	1973.1	2023.1
57.5°	1607.7	1598.1	1630.8	1784.6	1965.4	2050.0	2023.1	2094.3	2140.4	2136.6	2205.8
60°	1659.6	1652.0	1703.9	1911.6	2146.2	2255.8	2215.4	2309.7	2342.3	2328.9	2394.3
62.5°	1709.6	1707.7	1794.3	2059.6	2365.4	2471.2	2434.7	2517.3	2540.4	2523.1	2555.8
65°	1755.8	1767.3	1892.3	2207.7	2577.0	2698.1	2648.1	2730.8	2757.7	2744.3	2800.0
67.5°	1832.7	1846.2	2013.5	2396.2	2838.5	2963.5	2921.2	3007.7	3048.1	3044.3	3105.8
70°	1946.2	1971.2	2192.3	2663.5	3236.6	3396.2	3373.1	3478.9	3577.0	3569.3	3630.8
72.5°	2144.3	2184.7	2486.6	3078.9	3890.4	4084.7	4057.8	4117.4	4100.1	3959.7	3846.2
74°	2105.8	2155.8	2559.7	3296.2	4184.7	4307.8	4263.5	4265.5	4107.8	3894.3	3711.6
75°	1965.4	2017.3	2453.9	3269.3	4163.5	4230.8	4167.4	4088.5	3898.1	3680.8	3455.8
77.5°	1348.1	1415.4	1803.9	2640.4	3352.0	3259.7	3244.3	3094.3	2842.4	2598.1	2309.7
80°	690.4	738.5	932.7	1380.8	1988.5	1896.2	1927.0	1805.8	1596.2	1419.3	1125.0
82.5°	165.4	176.9	275.0	534.6	861.6	788.5	800.0	707.7	586.5	478.9	371.2
85°	86.5	98.1	134.6	148.1	226.9	234.6	228.8	221.2	180.8	151.9	132.7
87.5°	0.0	0.0	0.0	3.8	1.9	0.0	1.9	0.0	0.0	1.9	3.8
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°	840.4	840.4	840.4	840.4	840.4	840.4	840.4	840.4	840.4	840.4	840.4
2.5°	867.3	863.5	867.3	855.8	861.6	851.9	855.8	846.2	850.0	842.3	844.2
5°	871.2	861.6	867.3	857.7	859.6	851.9	850.0	846.2	844.2	838.5	834.6
7.5°	861.6	853.9	851.9	848.1	842.3	844.2	836.6	834.6	828.9	828.9	817.3
10°	851.9	853.9	842.3	846.2	836.6	838.5	825.0	828.9	819.2	826.9	809.6
12.5°	859.6	861.6	851.9	857.7	840.4	844.2	832.7	838.5	825.0	834.6	813.5
15°	876.9	875.0	871.2	871.2	853.9	861.6	848.1	851.9	838.5	850.0	826.9
17.5°	892.3	890.4	884.6	882.7	871.2	873.1	859.6	867.3	851.9	861.6	838.5
20°	909.6	900.0	898.1	896.2	882.7	882.7	873.1	876.9	861.6	873.1	846.2
22.5°	923.1	915.4	913.5	905.8	896.2	900.0	886.6	888.5	873.1	884.6	861.6
25°	944.2	934.6	934.6	923.1	917.3	915.4	907.7	913.5	898.1	905.8	884.6
27.5°	973.1	951.9	959.6	948.1	944.2	942.3	938.5	942.3	930.8	936.6	915.4
30°	1000.0	973.1	984.6	969.2	976.9	969.2	975.0	969.2	969.2	969.2	959.6
32.5°	1036.6	1003.9	1026.9	1003.9	1019.2	1007.7	1026.9	1015.4	1023.1	1021.2	1017.3
35°	1088.5	1050.0	1082.7	1051.9	1078.9	1063.5	1090.4	1084.6	1100.0	1092.3	1100.0
37.5°	1157.7	1117.3	1155.8	1126.9	1159.6	1136.6	1175.0	1171.2	1203.9	1192.3	1203.9
40°	1244.3	1215.4	1244.3	1223.1	1257.7	1248.1	1288.5	1290.4	1326.9	1321.2	1334.6
42.5°	1340.4	1319.3	1348.1	1336.6	1371.2	1378.9	1425.0	1436.6	1471.2	1480.8	1482.7
45°	1444.3	1440.4	1463.5	1475.0	1509.6	1532.7	1573.1	1601.9	1640.4	1661.6	1657.7
47.5°	1565.4	1580.8	1596.2	1625.0	1655.8	1703.9	1744.3	1780.8	1825.0	1838.5	1844.3
50°	1702.0	1728.9	1742.3	1782.7	1813.5	1873.1	1928.9	1975.0	2023.1	2017.3	2021.2
52.5°	1846.2	1880.8	1900.0	1948.1	1988.5	2057.7	2105.8	2150.0	2209.7	2194.3	2188.5
55°	2005.8	2057.7	2073.1	2127.0	2161.6	2232.7	2275.0	2352.0	2377.0	2361.6	2328.9
57.5°	2175.0	2236.6	2253.9	2327.0	2344.3	2421.2	2457.7	2509.7	2530.8	2505.8	2463.5
60°	2367.3	2423.1	2436.6	2502.0	2525.0	2596.2	2623.1	2669.3	2684.7	2623.1	2563.5
62.5°	2559.7	2617.4	2625.0	2682.7	2705.8	2767.4	2798.1	2825.0	2817.4	2727.0	2652.0
65°	2778.9	2834.7	2853.9	2911.6	2925.0	2971.2	2996.2	2965.4	2948.1	2811.6	2727.0
67.5°	3127.0	3186.6	3194.3	3207.7	3205.8	3182.7	3171.2	3065.4	2988.5	2736.6	2615.4
70°	3584.7	3540.4	3453.9	3353.9	3280.8	3150.1	3073.1	2855.8	2694.3	2411.6	2207.7
72.5°	3667.4	3523.1	3309.7	3138.5	2961.6	2755.8	2590.4	2261.6	2034.6	1738.5	1523.1
74°	3432.7	3198.1	2973.1	2732.7	2528.9	2228.9	2061.6	1646.2	1421.2	1121.2	859.6
75°	3150.1	2875.0	2621.2	2315.4	2125.0	1765.4	1607.7	1159.6	934.6	665.4	448.1
77.5°	2009.6	1680.8	1438.5	1084.6	936.6	646.2	473.1	294.2	217.3	190.4	165.4
80°	901.9	642.3	509.6	351.9	294.2	225.0	190.4	153.8	140.4	123.1	117.3
82.5°	288.5	230.8	219.2	196.2	196.2	157.7	134.6	105.8	96.2	82.7	75.0
85°	125.0	117.3	121.2	111.5	113.5	86.5	69.2	51.9	51.9	36.5	32.7
87.5°	3.8	0.0	1.9	0.0	3.8	0.0	1.9	0.0	1.9	0.0	1.9
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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CANDELA DISTRIBUTION (continued):

	77.5°	80°	85°	90°	95°	100°	102.5°	105°	107.5°	110°	112.5°
0°	840.4	840.4	840.4	840.4	840.4	840.4	840.4	840.4	840.4	840.4	840.4
2.5°	836.6	840.4	838.5	830.8	828.9	823.1	809.6	811.6	803.9	809.6	800.0
5°	828.9	826.9	819.2	809.6	800.0	788.5	778.9	775.0	767.3	763.5	757.7
7.5°	817.3	809.6	796.2	780.8	767.3	751.9	744.2	730.8	726.9	713.5	711.6
10°	813.5	800.0	784.6	765.4	742.3	719.2	717.3	694.2	692.3	671.2	665.4
12.5°	821.2	803.9	784.6	761.6	734.6	701.9	701.9	667.3	665.4	636.5	626.9
15°	836.6	815.4	790.4	763.5	728.9	688.5	686.5	646.2	642.3	607.7	596.2
17.5°	850.0	821.2	798.1	761.6	721.2	675.0	665.4	625.0	617.3	576.9	561.5
20°	859.6	826.9	800.0	757.7	707.7	653.9	640.4	598.1	580.8	540.4	519.2
22.5°	871.2	840.4	803.9	755.8	700.0	636.5	607.7	569.2	544.2	501.9	473.1
25°	888.5	861.6	817.3	761.6	694.2	619.2	580.8	540.4	505.8	463.5	421.2
27.5°	915.4	888.5	836.6	769.2	692.3	601.9	559.6	509.6	467.3	421.2	373.1
30°	953.9	925.0	869.2	790.4	694.2	588.5	536.5	482.7	432.7	378.9	328.9
32.5°	1003.9	980.8	911.6	813.5	701.9	576.9	515.4	453.9	392.3	340.4	296.2
35°	1073.1	1057.7	971.2	857.7	721.2	571.2	494.2	426.9	357.7	305.8	257.7
37.5°	1175.0	1153.9	1057.7	921.2	751.9	567.3	478.9	394.2	328.9	273.1	232.7
40°	1303.9	1275.0	1159.6	998.1	800.0	569.2	465.4	369.2	303.9	244.2	211.5
42.5°	1457.7	1415.4	1284.6	1092.3	848.1	573.1	457.7	346.2	284.6	221.2	196.2
45°	1630.8	1582.7	1432.7	1209.6	917.3	582.7	451.9	326.9	267.3	203.8	186.5
47.5°	1800.0	1752.0	1584.6	1326.9	988.5	600.0	455.8	315.4	255.8	194.2	175.0
50°	1965.4	1915.4	1719.3	1432.7	1050.0	623.1	471.2	317.3	253.9	190.4	169.2
52.5°	2111.6	2050.0	1834.6	1515.4	1094.2	638.5	484.6	323.1	255.8	188.5	167.3
55°	2257.7	2178.9	1927.0	1580.8	1121.2	640.4	484.6	325.0	257.7	188.5	165.4
57.5°	2367.3	2277.0	1998.1	1619.3	1130.8	630.8	473.1	315.4	246.2	186.5	161.5
60°	2436.6	2340.4	2048.1	1644.3	1117.3	590.4	411.5	278.9	217.3	173.1	150.0
62.5°	2494.3	2396.2	2063.5	1601.9	1003.9	469.2	321.2	226.9	180.8	153.8	138.5
65°	2507.7	2390.4	1955.8	1415.4	784.6	325.0	232.7	178.8	148.1	136.5	125.0
67.5°	2303.9	2163.5	1644.3	1107.7	534.6	223.1	173.1	146.2	126.9	121.2	117.3
70°	1873.1	1719.3	1203.9	725.0	298.1	155.8	132.7	121.2	109.6	109.6	103.8
72.5°	1207.7	1048.1	617.3	309.6	151.9	119.2	107.7	103.8	94.2	96.2	90.4
74°	617.3	480.8	251.9	163.5	125.0	105.8	96.2	94.2	84.6	86.5	80.8
75°	313.5	248.1	176.9	136.5	115.4	100.0	88.5	88.5	76.9	78.8	73.1
77.5°	146.2	140.4	121.2	107.7	98.1	84.6	73.1	71.2	59.6	63.5	55.8
80°	101.9	101.9	94.2	90.4	80.8	69.2	55.8	55.8	44.2	46.2	40.4
82.5°	57.7	53.8	53.8	61.5	63.5	51.9	40.4	38.5	32.7	32.7	26.9
85°	25.0	28.8	34.6	42.3	46.2	40.4	28.8	26.9	17.3	17.3	9.6
87.5°	0.0	1.9	1.9	3.8	7.7	7.7	0.0	3.8	0.0	1.9	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°
840.4	840.4	840.4	840.4	840.4	840.4	840.4	840.4	840.4	840.4	840.4	110°	114.0
803.9	794.2	800.0	790.4	794.2	784.6	788.5	782.7	776.9	769.2	767.3	112.5°	136.0
751.9	744.2	742.3	732.7	734.6	726.9	719.2	709.6	698.1	682.7	676.9	115°	158.0
694.2	692.3	678.9	673.1	665.4	657.7	644.2	628.9	605.8	584.6	571.2	117.5°	181.0
644.2	638.5	619.2	609.6	598.1	588.5	569.2	548.1	515.4	482.7	465.4	120°	204.0
601.9	594.2	569.2	557.7	540.4	528.9	505.8	478.9	432.7	386.5	365.4	122.5°	228.0
567.3	555.8	526.9	509.6	486.5	475.0	450.0	411.5	355.8	307.7	278.9	125°	254.0
526.9	511.5	480.8	459.6	436.5	415.4	390.4	350.0	286.5	242.3	213.5	127.5°	277.0
482.7	463.5	430.8	401.9	376.9	357.7	332.7	292.3	228.8	194.2	178.8	130°	301.0
436.5	405.8	376.9	351.9	323.1	303.9	278.9	242.3	194.2	175.0	169.2	132.5°	325.0
388.5	353.9	325.0	300.0	273.1	255.8	234.6	205.8	176.9	171.2	171.2	135°	348.0
340.4	305.8	278.9	253.9	230.8	219.2	200.0	180.8	167.3	169.2	171.2	137.5°	369.0
296.2	261.5	236.5	217.3	196.2	188.5	173.1	161.5	159.6	165.4	167.3	140°	390.0
257.7	226.9	203.8	188.5	171.2	167.3	153.8	148.1	153.8	161.5	159.6	142.5°	412.0
225.0	200.0	176.9	167.3	151.9	150.0	140.4	136.5	144.2	153.8	153.8	145°	433.0
200.0	176.9	159.6	151.9	140.4	138.5	130.8	126.9	132.7	146.2	150.0	147.5°	452.0
178.8	165.4	148.1	140.4	132.7	128.8	125.0	121.2	123.1	140.4	142.3	150°	469.0
165.4	155.8	140.4	136.5	126.9	125.0	119.2	115.4	117.3	130.8	136.5	152.5°	486.0
155.8	148.1	134.6	132.7	123.1	121.2	115.4	111.5	113.5	125.0	130.8	155°	503.0
148.1	140.4	128.8	125.0	119.2	117.3	113.5	109.6	109.6	121.2	126.9	157.5°	517.0
144.2	136.5	125.0	121.2	115.4	113.5	109.6	105.8	107.7	117.3	121.2	160°	530.0
142.3	132.7	123.1	117.3	113.5	109.6	105.8	101.9	103.8	113.5	117.3	162.5°	540.0
142.3	130.8	123.1	117.3	111.5	105.8	103.8	98.1	101.9	109.6	115.4	165°	550.0
142.3	130.8	123.1	117.3	113.5	107.7	103.8	100.0	101.9	109.6	115.4	167.5°	558.0
138.5	128.8	125.0	119.2	117.3	111.5	109.6	105.8	105.8	115.4	125.0	170°	564.0
132.7	126.9	125.0	121.2	121.2	117.3	117.3	113.5	113.5	125.0	134.6	172.5°	567.0
125.0	121.2	123.1	121.2	121.2	121.2	119.2	119.2	119.2	128.8	140.4	175°	570.0
117.3	115.4	117.3	117.3	119.2	117.3	119.2	117.3	117.3	126.9	138.5	177.5°	574.0
105.8	105.8	107.7	105.8	107.7	107.7	109.6	109.6	109.6	115.4	126.9	180°	576.0
92.3	90.4	92.3	90.4	94.2	90.4	94.2	96.2	94.2	96.2	101.9		
82.7	80.8	82.7	80.8	84.6	80.8	82.7	82.7	80.8	65.4	55.8		
75.0	73.1	75.0	73.1	76.9	73.1	76.9	75.0	71.2	48.1	46.2		
59.6	53.8	59.6	53.8	57.7	51.9	55.8	48.1	36.5	34.6	34.6		
44.2	38.5	42.3	36.5	34.6	26.9	28.8	26.9	25.0	26.9	26.9		
26.9	19.2	23.1	17.3	21.2	15.4	19.2	17.3	15.4	15.4	15.4		
13.5	9.6	13.5	7.7	11.5	7.7	9.6	9.6	5.8	5.8	5.8		
1.9	0.0	3.8	0.0	3.8	0.0	1.9	1.9	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		

'228334
 ISS-AF-1200-LED-E1-SL4-7030-ULG

REPORT NUMBER: P228334
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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°	840.4	840.4
136.0	136.0	136.0	136.0	135.5	135.0	134.0	132.0	129.0	126.0	2.5°	761.6	763.5
158.0	158.0	158.0	158.0	157.5	157.0	156.0	154.0	151.0	149.0	5°	667.3	673.1
180.8	180.5	180.2	180.0	179.8	179.5	179.0	177.0	174.0	172.0	7.5°	563.5	567.3
204.0	204.0	204.0	204.0	203.5	203.0	202.0	201.0	198.0	196.0	10°	453.9	457.7
228.0	228.0	228.0	228.0	227.8	227.5	227.0	226.0	223.0	221.0	12.5°	350.0	353.9
253.8	253.5	253.2	253.0	252.8	252.5	252.0	251.0	248.0	247.0	15°	263.5	259.6
277.2	277.5	277.8	278.0	277.5	277.0	276.0	274.0	272.0	270.0	17.5°	201.9	198.1
301.0	301.0	301.0	301.0	300.5	300.0	299.0	298.0	294.0	293.0	20°	171.2	171.2
325.0	325.0	325.0	325.0	324.2	323.5	322.0	321.0	318.0	317.0	22.5°	167.3	165.4
348.0	348.0	348.0	348.0	347.2	346.5	345.0	345.0	341.0	339.0	25°	169.2	167.3
369.0	369.0	369.0	369.0	368.5	368.0	367.0	367.0	364.0	363.0	27.5°	169.2	167.3
390.0	390.0	390.0	390.0	389.8	389.5	389.0	388.0	386.0	385.0	30°	165.4	163.5
412.0	412.0	412.0	412.0	411.5	411.0	410.0	410.0	407.0	408.0	32.5°	159.6	157.7
433.2	433.5	433.8	434.0	433.5	433.0	432.0	431.0	428.0	428.0	35°	153.8	153.8
452.5	453.0	453.5	454.0	453.8	453.5	453.0	452.0	448.0	447.0	37.5°	150.0	151.9
469.5	470.0	470.5	471.0	470.8	470.5	470.0	469.0	465.0	464.0	40°	144.2	146.2
486.2	486.5	486.8	487.0	486.8	486.5	486.0	485.0	482.0	483.0	42.5°	138.5	140.4
503.2	503.5	503.8	504.0	503.8	503.5	503.0	503.0	501.0	502.0	45°	132.7	134.6
517.5	518.0	518.5	519.0	519.0	519.0	519.0	519.0	516.0	517.0	47.5°	126.9	126.9
530.5	531.0	531.5	532.0	532.0	532.0	532.0	532.0	529.0	529.0	50°	119.2	119.2
540.5	541.0	541.5	542.0	541.8	541.5	541.0	541.0	538.0	539.0	52.5°	117.3	117.3
550.8	551.5	552.2	553.0	552.8	552.5	552.0	552.0	548.0	549.0	55°	117.3	117.3
558.5	559.0	559.5	560.0	560.0	560.0	560.0	561.0	558.0	559.0	57.5°	121.2	121.2
564.2	564.5	564.8	565.0	565.2	565.5	566.0	567.0	565.0	566.0	60°	132.7	134.6
567.5	568.0	568.5	569.0	568.8	568.5	568.0	569.0	567.0	569.0	62.5°	155.8	157.7
570.8	571.5	572.2	573.0	572.8	572.5	572.0	572.0	569.0	570.0	65°	178.8	182.7
574.8	575.5	576.2	577.0	577.0	577.0	577.0	578.0	574.0	575.0	67.5°	180.8	186.5
576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	70°	175.0	180.8
										72.5°	121.2	121.2
										74°	53.8	51.9
										75°	46.2	44.2
										77.5°	34.6	34.6
										80°	25.0	23.1
										82.5°	13.5	13.5
										85°	3.8	3.8
										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

