

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: P228333

Luminaire Tested: **ISS-AF-1200-LED-E1-SL4-7050-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P228333
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-SL4-7050-ULG
Description: IMPACT ELITE LED QUATER SPHERE LUMINAIRE WITH UPLIGHT
LIGHT SQUARE WITH ACCUED OPTICS-TYPE IV W/SPILL CONTROL, WITH UPLIGHT
GLOW
Light Source: (16) 5000K CCT, 70 CRI LEDs and (1) UPLIGHT LED
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7244.2 lumens
Efficiency: N/A
Efficacy: 87.6 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

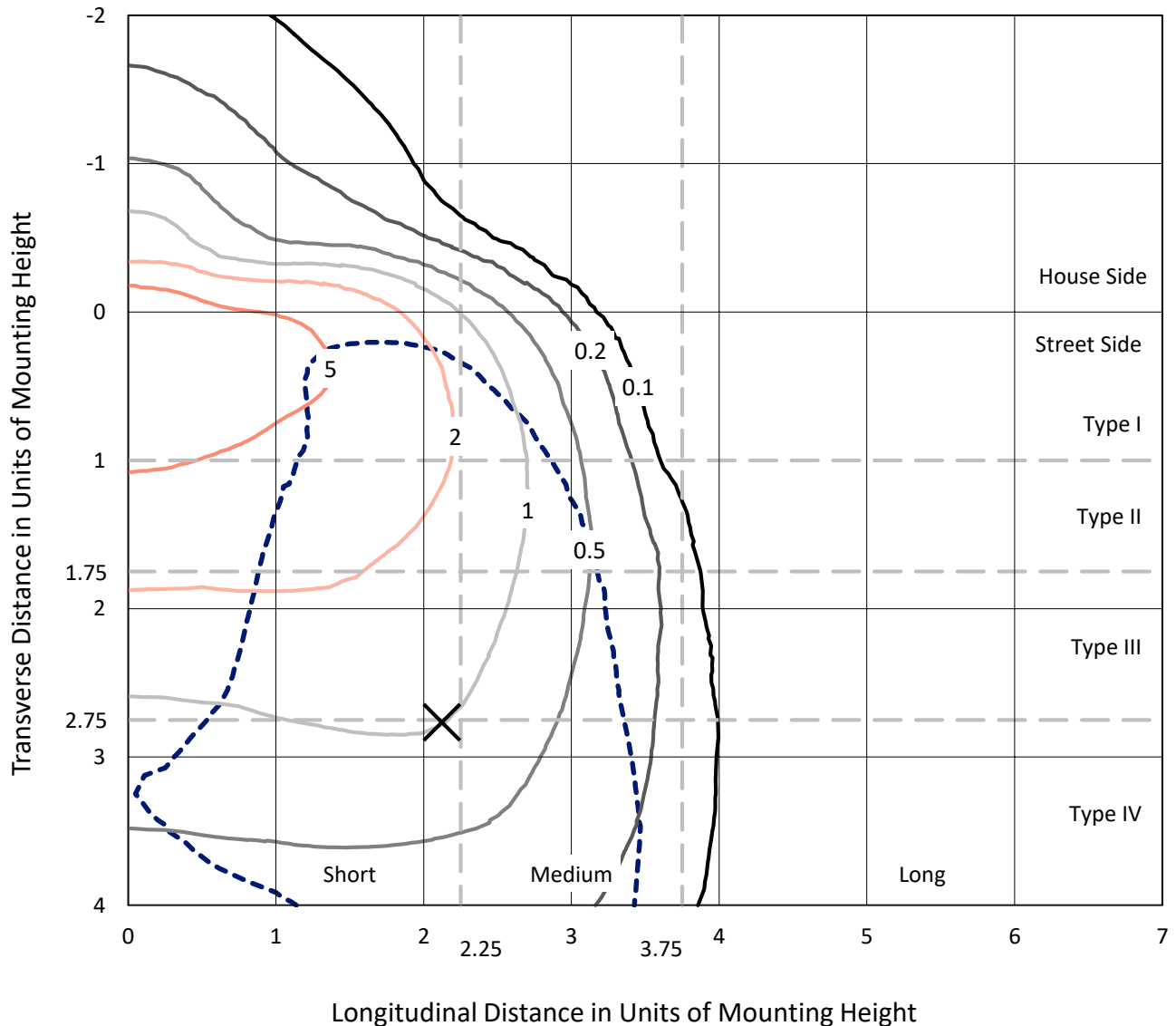


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Iso-Footcandle Lines of Horizontal Illumination

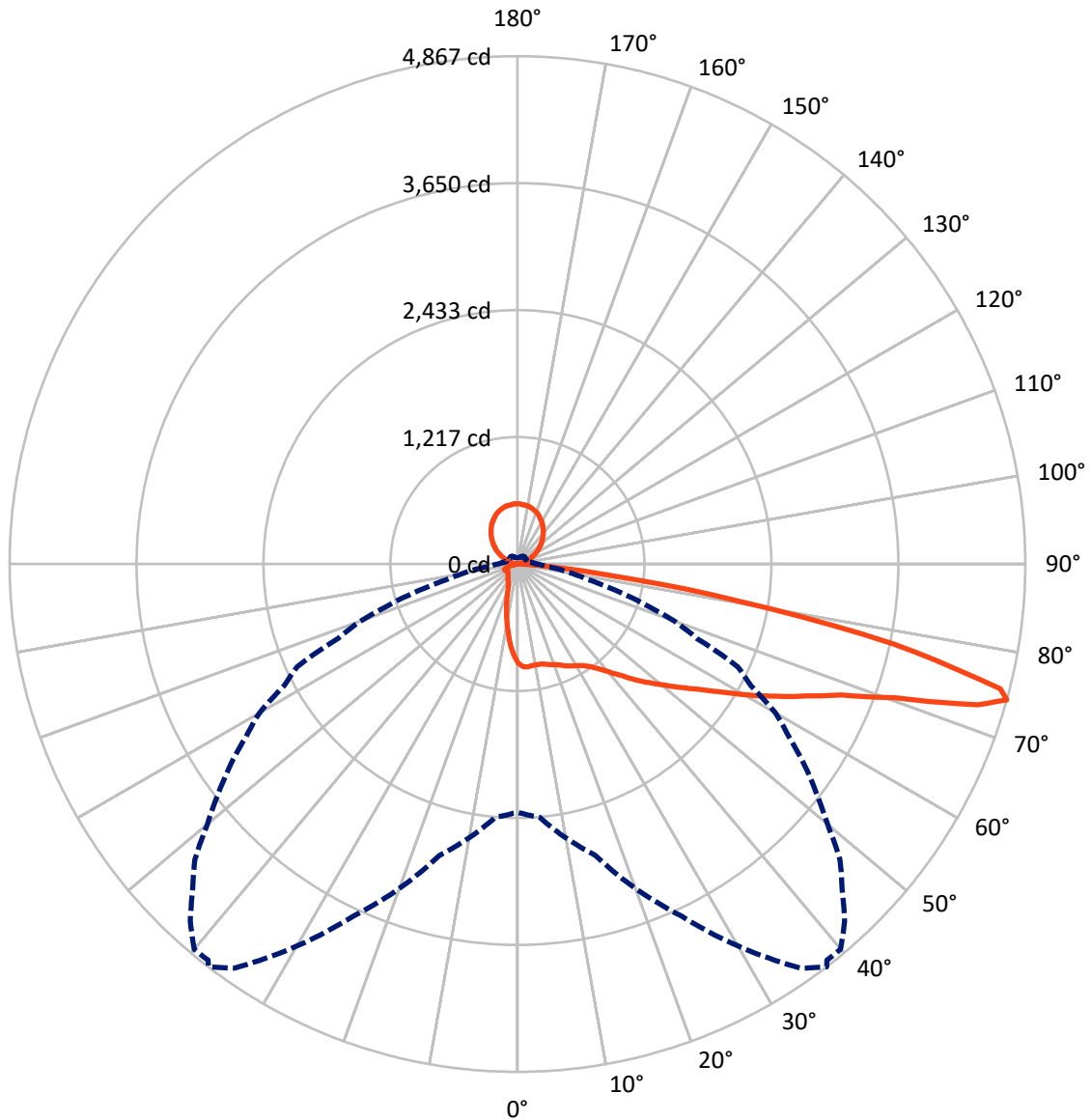
× Max cd
 - - - 1/2 Max cd



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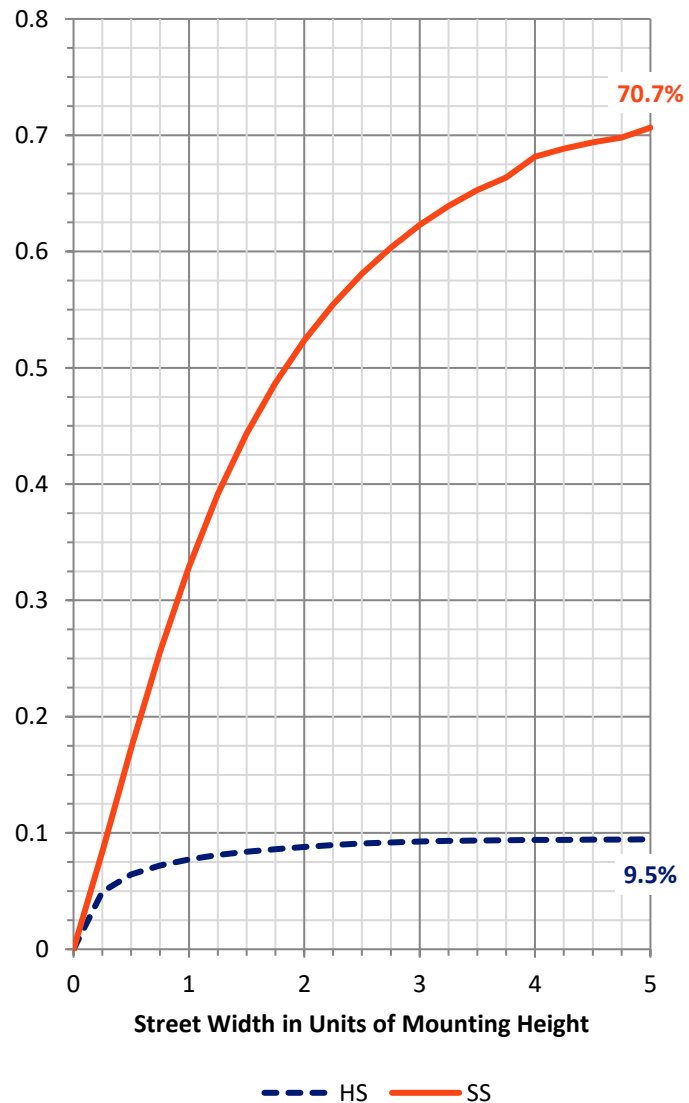
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	689.9	713.1	1402.9
	% Fixture	9.5	9.8	19.4
Street Side	Lumens	5128.1	713.1	5841.2
	% Fixture	70.8	9.8	80.6
Total	Lumens	5818.0	1426.2	7244.2
	% Fixture	80.3	19.7	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.7	1.1
10°-20°	210.6	2.9
20°-30°	326.3	4.5
30°-40°	484.0	6.7
40°-50°	744.5	10.3
50°-60°	1100.5	15.2
60°-70°	1467.0	20.3
70°-80°	1266.3	17.5
80°-90°	136.2	1.9
90°-100°	4.7	0.1
100°-110°	69.0	1.0
110°-120°	153.0	2.1
120°-130°	223.9	3.1
130°-140°	265.6	3.7
140°-150°	269.3	3.7
150°-160°	231.1	3.2
160°-170°	155.1	2.1
170°-180°	54.3	0.8
0°-90°	5818.0	80.3
0°-180°	7244.2	100.0



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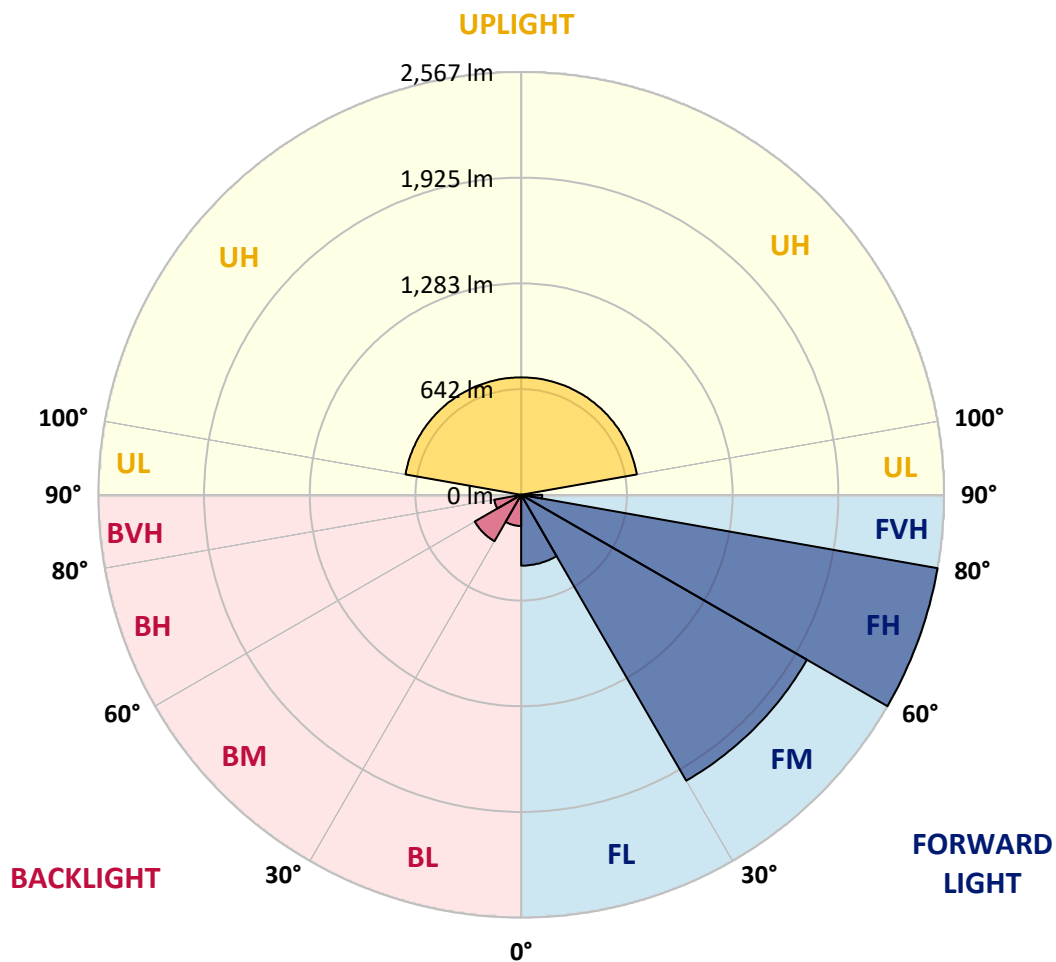
CATALOG NUMBER: ISS-AF-1200-LED-E1-SL4-7050-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	430.1	5.9			
FM	(30°-60°)	2003.9	27.7			
FH	(60°-80°)	2566.9	35.4			G2/5000
FVH	(80°-90°)	127.2	1.8			G2/225
BL	(0°-30°)	189.4	2.6	B1/500		
BM	(30°-60°)	325.2	4.5	B1/1000		
BH	(60°-80°)	166.3	2.3	B1/500		G1/500
BVH	(80°-90°)	9.0	0.1			G0/10
UL	(90°-100°)	4.7	0.1		U1/10	
UH	(100°-180°)	713.1	9.8		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°	949.4	949.4	949.4	949.4	949.4	949.4	949.4	949.4	949.4	949.4	949.4
2.5°	1003.7	1001.5	997.2	995.0	990.7	984.2	990.7	982.0	977.6	982.0	973.3
5°	1021.1	1018.9	1014.6	1005.9	1001.5	990.7	997.2	986.3	984.2	988.5	977.6
7.5°	1023.3	1018.9	1012.4	1001.5	997.2	984.2	988.5	975.5	971.1	975.5	969.0
10°	1016.8	1014.6	1008.1	990.7	986.3	982.0	979.8	971.1	969.0	966.8	964.6
12.5°	1005.9	1005.9	1001.5	995.0	992.9	984.2	986.3	977.6	979.8	975.5	971.1
15°	1001.5	999.4	1003.7	1008.1	1008.1	995.0	1003.7	997.2	992.9	995.0	988.5
17.5°	997.2	999.4	1014.6	1023.3	1027.6	1014.6	1027.6	1014.6	1005.9	1016.8	1005.9
20°	995.0	1001.5	1027.6	1047.2	1049.3	1027.6	1049.3	1027.6	1027.6	1040.7	1021.1
22.5°	1005.9	1016.8	1053.7	1075.4	1079.8	1051.5	1077.6	1049.3	1049.3	1060.2	1040.7
25°	1040.7	1051.5	1092.8	1116.7	1112.3	1081.9	1105.8	1077.6	1075.4	1088.4	1062.4
27.5°	1086.3	1101.5	1140.6	1162.3	1147.1	1105.8	1140.6	1099.3	1099.3	1118.9	1084.1
30°	1151.5	1162.3	1197.1	1199.2	1179.7	1129.7	1168.8	1123.2	1116.7	1151.5	1108.0
32.5°	1223.1	1231.8	1257.9	1242.7	1214.5	1162.3	1207.9	1153.6	1151.5	1188.4	1138.4
35°	1299.2	1307.9	1316.6	1290.5	1264.4	1207.9	1257.9	1203.6	1201.4	1242.7	1194.9
37.5°	1377.4	1377.4	1377.4	1347.0	1329.6	1275.3	1320.9	1277.5	1273.1	1316.6	1270.9
40°	1440.4	1444.7	1438.2	1410.0	1401.3	1362.2	1401.3	1362.2	1368.7	1407.8	1370.9
42.5°	1492.5	1496.9	1499.1	1475.2	1483.9	1462.1	1492.5	1464.3	1466.5	1509.9	1488.2
45°	1544.7	1542.5	1559.9	1553.4	1579.4	1581.6	1599.0	1588.1	1592.5	1625.1	1618.6
47.5°	1599.0	1588.1	1607.7	1635.9	1683.7	1698.9	1709.8	1714.1	1731.5	1746.7	1761.9
50°	1651.1	1640.3	1653.3	1716.3	1792.4	1824.9	1827.1	1848.8	1868.4	1890.1	1920.5
52.5°	1705.5	1696.8	1709.8	1798.9	1920.5	1966.2	1959.6	1996.6	2024.8	2048.7	2098.7
55°	1761.9	1753.3	1766.3	1898.8	2057.4	2120.4	2113.9	2166.0	2220.3	2229.0	2285.5
57.5°	1816.3	1805.4	1842.3	2016.1	2220.3	2315.9	2285.5	2365.9	2418.1	2413.7	2491.9
60°	1874.9	1866.2	1924.9	2159.5	2424.6	2548.4	2502.8	2609.2	2646.2	2631.0	2704.8
62.5°	1931.4	1929.2	2027.0	2326.8	2672.2	2791.7	2750.5	2843.9	2869.9	2850.4	2887.3
65°	1983.5	1996.6	2137.8	2494.1	2911.2	3048.1	2991.6	3085.0	3115.4	3100.2	3163.2
67.5°	2070.4	2085.7	2274.7	2707.0	3206.7	3347.9	3300.1	3397.9	3443.5	3439.2	3508.7
70°	2198.6	2226.9	2476.7	3009.0	3656.4	3836.7	3810.7	3930.1	4040.9	4032.3	4101.8
72.5°	2422.4	2468.0	2809.1	3478.3	4395.1	4614.5	4584.1	4651.4	4631.9	4473.3	4345.1
74°	2378.9	2435.4	2891.7	3723.8	4727.5	4866.5	4816.5	4818.7	4640.6	4399.4	4193.0
75°	2220.3	2279.0	2772.2	3693.3	4703.6	4779.6	4707.9	4618.8	4403.8	4158.3	3904.1
77.5°	1523.0	1599.0	2037.9	2982.9	3786.8	3682.5	3665.1	3495.6	3211.0	2935.1	2609.2
80°	779.9	834.3	1053.7	1559.9	2246.4	2142.1	2176.9	2040.0	1803.2	1603.3	1270.9
82.5°	186.8	199.9	310.7	604.0	973.3	890.7	903.8	799.5	662.6	541.0	419.3
85°	97.8	110.8	152.1	167.3	256.4	265.1	258.5	249.8	204.2	171.6	149.9
87.5°	0.0	0.0	0.0	4.3	2.2	0.0	2.2	0.0	0.0	2.2	4.3
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	5.2	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°	949.4	949.4	949.4	949.4	949.4	949.4	949.4	949.4	949.4	949.4	949.4
2.5°	979.8	975.5	979.8	966.8	973.3	962.4	966.8	955.9	960.3	951.6	953.8
5°	984.2	973.3	979.8	969.0	971.1	962.4	960.3	955.9	953.8	947.2	942.9
7.5°	973.3	964.6	962.4	958.1	951.6	953.8	945.1	942.9	936.4	936.4	923.3
10°	962.4	964.6	951.6	955.9	945.1	947.2	932.0	936.4	925.5	934.2	914.6
12.5°	971.1	973.3	962.4	969.0	949.4	953.8	940.7	947.2	932.0	942.9	919.0
15°	990.7	988.5	984.2	984.2	964.6	973.3	958.1	962.4	947.2	960.3	934.2
17.5°	1008.1	1005.9	999.4	997.2	984.2	986.3	971.1	979.8	962.4	973.3	947.2
20°	1027.6	1016.8	1014.6	1012.4	997.2	997.2	986.3	990.7	973.3	986.3	955.9
22.5°	1042.8	1034.1	1032.0	1023.3	1012.4	1016.8	1001.5	1003.7	986.3	999.4	973.3
25°	1066.7	1055.9	1055.9	1042.8	1036.3	1034.1	1025.4	1032.0	1014.6	1023.3	999.4
27.5°	1099.3	1075.4	1084.1	1071.1	1066.7	1064.6	1060.2	1064.6	1051.5	1058.0	1034.1
30°	1129.7	1099.3	1112.3	1095.0	1103.7	1095.0	1101.5	1095.0	1095.0	1095.0	1084.1
32.5°	1171.0	1134.1	1160.1	1134.1	1151.5	1138.4	1160.1	1147.1	1155.8	1153.6	1149.3
35°	1229.7	1186.2	1223.1	1188.4	1218.8	1201.4	1231.8	1225.3	1242.7	1234.0	1242.7
37.5°	1307.9	1262.3	1305.7	1273.1	1310.0	1284.0	1327.4	1323.1	1360.0	1347.0	1360.0
40°	1405.6	1373.1	1405.6	1381.7	1420.8	1410.0	1455.6	1457.8	1499.1	1492.5	1507.8
42.5°	1514.3	1490.4	1523.0	1509.9	1549.0	1557.7	1609.9	1622.9	1662.0	1672.9	1675.0
45°	1631.6	1627.2	1653.3	1666.3	1705.5	1731.5	1777.1	1809.7	1853.2	1877.1	1872.7
47.5°	1768.5	1785.8	1803.2	1835.8	1870.6	1924.9	1970.5	2011.8	2061.8	2077.0	2083.5
50°	1922.7	1953.1	1968.3	2014.0	2048.7	2116.1	2179.1	2231.2	2285.5	2279.0	2283.4
52.5°	2085.7	2124.8	2146.5	2200.8	2246.4	2324.6	2378.9	2428.9	2496.3	2478.9	2472.4
55°	2266.0	2324.6	2342.0	2402.8	2441.9	2522.3	2570.1	2657.0	2685.3	2667.9	2631.0
57.5°	2457.2	2526.7	2546.2	2628.8	2648.3	2735.2	2776.5	2835.2	2859.1	2830.8	2783.0
60°	2674.4	2737.4	2752.6	2826.5	2852.6	2932.9	2963.4	3015.5	3032.9	2963.4	2896.0
62.5°	2891.7	2956.8	2965.5	3030.7	3056.8	3126.3	3161.1	3191.5	3182.8	3080.7	2996.0
65°	3139.3	3202.3	3224.1	3289.2	3304.5	3356.6	3384.8	3350.1	3330.5	3176.3	3080.7
67.5°	3532.6	3599.9	3608.6	3623.8	3621.6	3595.6	3582.5	3463.0	3376.1	3091.5	2954.7
70°	4049.6	3999.7	3901.9	3788.9	3706.4	3558.6	3471.7	3226.2	3043.7	2724.4	2494.1
72.5°	4143.1	3980.1	3739.0	3545.6	3345.7	3113.3	2926.4	2554.9	2298.6	1964.0	1720.7
74°	3878.0	3613.0	3358.8	3087.2	2856.9	2518.0	2329.0	1859.7	1605.5	1266.6	971.1
75°	3558.6	3248.0	2961.2	2615.8	2400.7	1994.4	1816.3	1310.0	1055.9	751.7	506.2
77.5°	2270.3	1898.8	1625.1	1225.3	1058.0	730.0	534.4	332.4	245.5	215.1	186.8
80°	1018.9	725.6	575.7	397.6	332.4	254.2	215.1	173.8	158.6	139.0	132.5
82.5°	325.9	260.7	247.7	221.6	221.6	178.1	152.1	119.5	108.6	93.4	84.7
85°	141.2	132.5	136.9	126.0	128.2	97.8	78.2	58.7	58.7	41.3	36.9
87.5°	4.3	0.0	2.2	0.0	4.3	0.0	2.2	0.0	2.2	0.0	2.2
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°	949.4	949.4	949.4	949.4	949.4	949.4	949.4	949.4	949.4	949.4	949.4
2.5°	945.1	949.4	947.2	938.5	936.4	929.9	914.6	916.8	908.1	914.6	903.8
5°	936.4	934.2	925.5	914.6	903.8	890.7	879.9	875.5	866.8	862.5	856.0
7.5°	923.3	914.6	899.4	882.1	866.8	849.5	840.8	825.6	821.2	806.0	803.8
10°	919.0	903.8	886.4	864.7	838.6	812.5	810.4	784.3	782.1	758.2	751.7
12.5°	927.7	908.1	886.4	860.3	829.9	793.0	793.0	753.9	751.7	719.1	708.3
15°	945.1	921.2	892.9	862.5	823.4	777.8	775.6	730.0	725.6	686.5	673.5
17.5°	960.3	927.7	901.6	860.3	814.7	762.6	751.7	706.1	697.4	651.8	634.4
20°	971.1	934.2	903.8	856.0	799.5	738.7	723.5	675.7	656.1	610.5	586.6
22.5°	984.2	949.4	908.1	853.8	790.8	719.1	686.5	643.1	614.8	567.0	534.4
25°	1003.7	973.3	923.3	860.3	784.3	699.6	656.1	610.5	571.4	523.6	475.8
27.5°	1034.1	1003.7	945.1	869.0	782.1	680.0	632.2	575.7	527.9	475.8	421.5
30°	1077.6	1045.0	982.0	892.9	784.3	664.8	606.1	545.3	488.8	428.0	371.5
32.5°	1134.1	1108.0	1029.8	919.0	793.0	651.8	582.2	512.7	443.2	384.5	334.6
35°	1212.3	1194.9	1097.1	969.0	814.7	645.2	558.3	482.3	404.1	345.4	291.1
37.5°	1327.4	1303.5	1194.9	1040.7	849.5	640.9	541.0	445.4	371.5	308.5	262.9
40°	1473.0	1440.4	1310.0	1127.6	903.8	643.1	525.8	417.1	343.3	275.9	239.0
42.5°	1646.8	1599.0	1451.3	1234.0	958.1	647.4	517.1	391.1	321.5	249.8	221.6
45°	1842.3	1788.0	1618.6	1366.5	1036.3	658.3	510.5	369.3	302.0	230.3	210.7
47.5°	2033.5	1979.2	1790.2	1499.1	1116.7	677.8	514.9	356.3	288.9	219.4	197.7
50°	2220.3	2163.9	1942.3	1618.6	1186.2	703.9	532.3	358.5	286.8	215.1	191.2
52.5°	2385.5	2315.9	2072.6	1712.0	1236.2	721.3	547.5	365.0	288.9	212.9	189.0
55°	2550.6	2461.5	2176.9	1785.8	1266.6	723.5	547.5	367.2	291.1	212.9	186.8
57.5°	2674.4	2572.3	2257.3	1829.3	1277.5	712.6	534.4	356.3	278.1	210.7	182.5
60°	2752.6	2644.0	2313.8	1857.5	1262.3	667.0	464.9	315.0	245.5	195.5	169.5
62.5°	2817.8	2707.0	2331.1	1809.7	1134.1	530.1	362.8	256.4	204.2	173.8	156.4
65°	2833.0	2700.5	2209.5	1599.0	886.4	367.2	262.9	202.0	167.3	154.3	141.2
67.5°	2602.7	2444.1	1857.5	1251.4	604.0	252.0	195.5	165.1	143.4	136.9	132.5
70°	2116.1	1942.3	1360.0	819.1	336.7	176.0	149.9	136.9	123.8	123.8	117.3
72.5°	1364.4	1184.0	697.4	349.8	171.6	134.7	121.7	117.3	106.5	108.6	102.1
74°	697.4	543.1	284.6	184.7	141.2	119.5	108.6	106.5	95.6	97.8	91.2
75°	354.1	280.3	199.9	154.3	130.4	113.0	99.9	99.9	86.9	89.1	82.6
77.5°	165.1	158.6	136.9	121.7	110.8	95.6	82.6	80.4	67.3	71.7	63.0
80°	115.1	115.1	106.5	102.1	91.2	78.2	63.0	63.0	50.0	52.1	45.6
82.5°	65.2	60.8	60.8	69.5	71.7	58.7	45.6	43.5	36.9	36.9	30.4
85°	28.2	32.6	39.1	47.8	52.1	45.6	32.6	30.4	19.6	19.6	10.9
87.5°	0.0	2.2	2.2	4.3	8.7	8.7	0.0	4.3	0.0	2.2	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°
949.4	949.4	949.4	949.4	949.4	949.4	949.4	949.4	949.4	949.4	949.4	110°	114.0
908.1	897.3	903.8	892.9	897.3	886.4	890.7	884.2	877.7	869.0	866.8	112.5°	136.0
849.5	840.8	838.6	827.7	829.9	821.2	812.5	801.7	788.6	771.3	764.7	115°	158.0
784.3	782.1	766.9	760.4	751.7	743.0	727.8	710.4	684.4	660.5	645.2	117.5°	181.0
727.8	721.3	699.6	688.7	675.7	664.8	643.1	619.2	582.2	545.3	525.8	120°	204.0
680.0	671.3	643.1	630.0	610.5	597.5	571.4	541.0	488.8	436.7	412.8	122.5°	228.0
640.9	627.9	595.3	575.7	549.7	536.6	508.4	464.9	401.9	347.6	315.0	125°	254.0
595.3	577.9	543.1	519.2	493.2	469.3	441.0	395.4	323.7	273.7	241.2	127.5°	277.0
545.3	523.6	486.7	454.1	425.8	404.1	375.9	330.2	258.5	219.4	202.0	130°	301.0
493.2	458.4	425.8	397.6	365.0	343.3	315.0	273.7	219.4	197.7	191.2	132.5°	325.0
438.9	399.7	367.2	338.9	308.5	288.9	265.1	232.5	199.9	193.4	193.4	135°	348.0
384.5	345.4	315.0	286.8	260.7	247.7	225.9	204.2	189.0	191.2	193.4	137.5°	369.0
334.6	295.5	267.2	245.5	221.6	212.9	195.5	182.5	180.3	186.8	189.0	140°	390.0
291.1	256.4	230.3	212.9	193.4	189.0	173.8	167.3	173.8	182.5	180.3	142.5°	412.0
254.2	225.9	199.9	189.0	171.6	169.5	158.6	154.3	162.9	173.8	173.8	145°	433.0
225.9	199.9	180.3	171.6	158.6	156.4	147.7	143.4	149.9	165.1	169.5	147.5°	452.0
202.0	186.8	167.3	158.6	149.9	145.6	141.2	136.9	139.0	158.6	160.8	150°	469.0
186.8	176.0	158.6	154.3	143.4	141.2	134.7	130.4	132.5	147.7	154.3	152.5°	486.0
176.0	167.3	152.1	149.9	139.0	136.9	130.4	126.0	128.2	141.2	147.7	155°	503.0
167.3	158.6	145.6	141.2	134.7	132.5	128.2	123.8	123.8	136.9	143.4	157.5°	517.0
162.9	154.3	141.2	136.9	130.4	128.2	123.8	119.5	121.7	132.5	136.9	160°	530.0
160.8	149.9	139.0	132.5	128.2	123.8	119.5	115.1	117.3	128.2	132.5	162.5°	540.0
160.8	147.7	139.0	132.5	126.0	119.5	117.3	110.8	115.1	123.8	130.4	165°	550.0
160.8	147.7	139.0	132.5	128.2	121.7	117.3	113.0	115.1	123.8	130.4	167.5°	558.0
156.4	145.6	141.2	134.7	132.5	126.0	123.8	119.5	119.5	130.4	141.2	170°	564.0
149.9	143.4	141.2	136.9	136.9	132.5	132.5	128.2	128.2	141.2	152.1	172.5°	567.0
141.2	136.9	139.0	136.9	136.9	136.9	134.7	134.7	134.7	145.6	158.6	175°	570.0
132.5	130.4	132.5	132.5	134.7	132.5	134.7	132.5	132.5	143.4	156.4	177.5°	574.0
119.5	119.5	121.7	119.5	121.7	121.7	123.8	123.8	123.8	130.4	143.4	180°	576.0
104.3	102.1	104.3	102.1	106.5	102.1	106.5	108.6	106.5	108.6	115.1		
93.4	91.2	93.4	91.2	95.6	91.2	93.4	93.4	91.2	73.9	63.0		
84.7	82.6	84.7	82.6	86.9	82.6	86.9	84.7	80.4	54.3	52.1		
67.3	60.8	67.3	60.8	65.2	58.7	63.0	54.3	41.3	39.1	39.1		
50.0	43.5	47.8	41.3	39.1	30.4	32.6	30.4	28.2	30.4	30.4		
30.4	21.7	26.1	19.6	23.9	17.4	21.7	19.6	17.4	17.4	17.4		
15.2	10.9	15.2	8.7	13.0	8.7	10.9	10.9	6.5	6.5	6.5		
2.2	0.0	4.3	0.0	4.3	0.0	2.2	2.2	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		

'228333
 ISS-AF-1200-LED-E1-SL4-7050-ULG

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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°	949.4	949.4
136.0	136.0	136.0	136.0	135.5	135.0	134.0	132.0	129.0	126.0	2.5°	860.3	862.5
158.0	158.0	158.0	158.0	157.5	157.0	156.0	154.0	151.0	149.0	5°	753.9	760.4
180.8	180.5	180.2	180.0	179.8	179.5	179.0	177.0	174.0	172.0	7.5°	636.6	640.9
204.0	204.0	204.0	204.0	203.5	203.0	202.0	201.0	198.0	196.0	10°	512.7	517.1
228.0	228.0	228.0	228.0	227.8	227.5	227.0	226.0	223.0	221.0	12.5°	395.4	399.7
253.8	253.5	253.2	253.0	252.8	252.5	252.0	251.0	248.0	247.0	15°	297.6	293.3
277.2	277.5	277.8	278.0	277.5	277.0	276.0	274.0	272.0	270.0	17.5°	228.1	223.8
301.0	301.0	301.0	301.0	300.5	300.0	299.0	298.0	294.0	293.0	20°	193.4	193.4
325.0	325.0	325.0	325.0	324.2	323.5	322.0	321.0	318.0	317.0	22.5°	189.0	186.8
348.0	348.0	348.0	348.0	347.2	346.5	345.0	345.0	341.0	339.0	25°	191.2	189.0
369.0	369.0	369.0	369.0	368.5	368.0	367.0	367.0	364.0	363.0	27.5°	191.2	189.0
390.0	390.0	390.0	390.0	389.8	389.5	389.0	388.0	386.0	385.0	30°	186.8	184.7
412.0	412.0	412.0	412.0	411.5	411.0	410.0	410.0	407.0	408.0	32.5°	180.3	178.1
433.2	433.5	433.8	434.0	433.5	433.0	432.0	431.0	428.0	428.0	35°	173.8	173.8
452.5	453.0	453.5	454.0	453.8	453.5	453.0	452.0	448.0	447.0	37.5°	169.5	171.6
469.5	470.0	470.5	471.0	470.8	470.5	470.0	469.0	465.0	464.0	40°	162.9	165.1
486.2	486.5	486.8	487.0	486.8	486.5	486.0	485.0	482.0	483.0	42.5°	156.4	158.6
503.2	503.5	503.8	504.0	503.8	503.5	503.0	503.0	501.0	502.0	45°	149.9	152.1
517.5	518.0	518.5	519.0	519.0	519.0	519.0	519.0	516.0	517.0	47.5°	143.4	143.4
530.5	531.0	531.5	532.0	532.0	532.0	532.0	532.0	529.0	529.0	50°	134.7	134.7
540.5	541.0	541.5	542.0	541.8	541.5	541.0	541.0	538.0	539.0	52.5°	132.5	132.5
550.8	551.5	552.2	553.0	552.8	552.5	552.0	552.0	548.0	549.0	55°	132.5	132.5
558.5	559.0	559.5	560.0	560.0	560.0	560.0	561.0	558.0	559.0	57.5°	136.9	136.9
564.2	564.5	564.8	565.0	565.2	565.5	566.0	567.0	565.0	566.0	60°	149.9	152.1
567.5	568.0	568.5	569.0	568.8	568.5	568.0	569.0	567.0	569.0	62.5°	176.0	178.1
570.8	571.5	572.2	573.0	572.8	572.5	572.0	572.0	569.0	570.0	65°	202.0	206.4
574.8	575.5	576.2	577.0	577.0	577.0	577.0	578.0	574.0	575.0	67.5°	204.2	210.7
576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	70°	197.7	204.2
										72.5°	136.9	136.9
										74°	60.8	58.7
										75°	52.1	50.0
										77.5°	39.1	39.1
										80°	28.2	26.1
										82.5°	15.2	15.2
										85°	4.3	4.3
										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

