

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: P227161

Luminaire Tested: **ISW-AF-1200-LED-E1-SLL-8030-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P227161
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35948)-DOWNLIGHT AND
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: ISW-AF-1200-LED-E1-SLL-8030-ULG
Description: IMPACT ELITE LED WEDGE LUMINAIRE WITH UPLIGHT
LIGHT SQUARE WITH ACCULED OPTICS-90° SPILL LIGHT ELIMINATOR LEFT, 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: 6585 lumens
Efficiency: N/A
Efficacy: 79.6 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

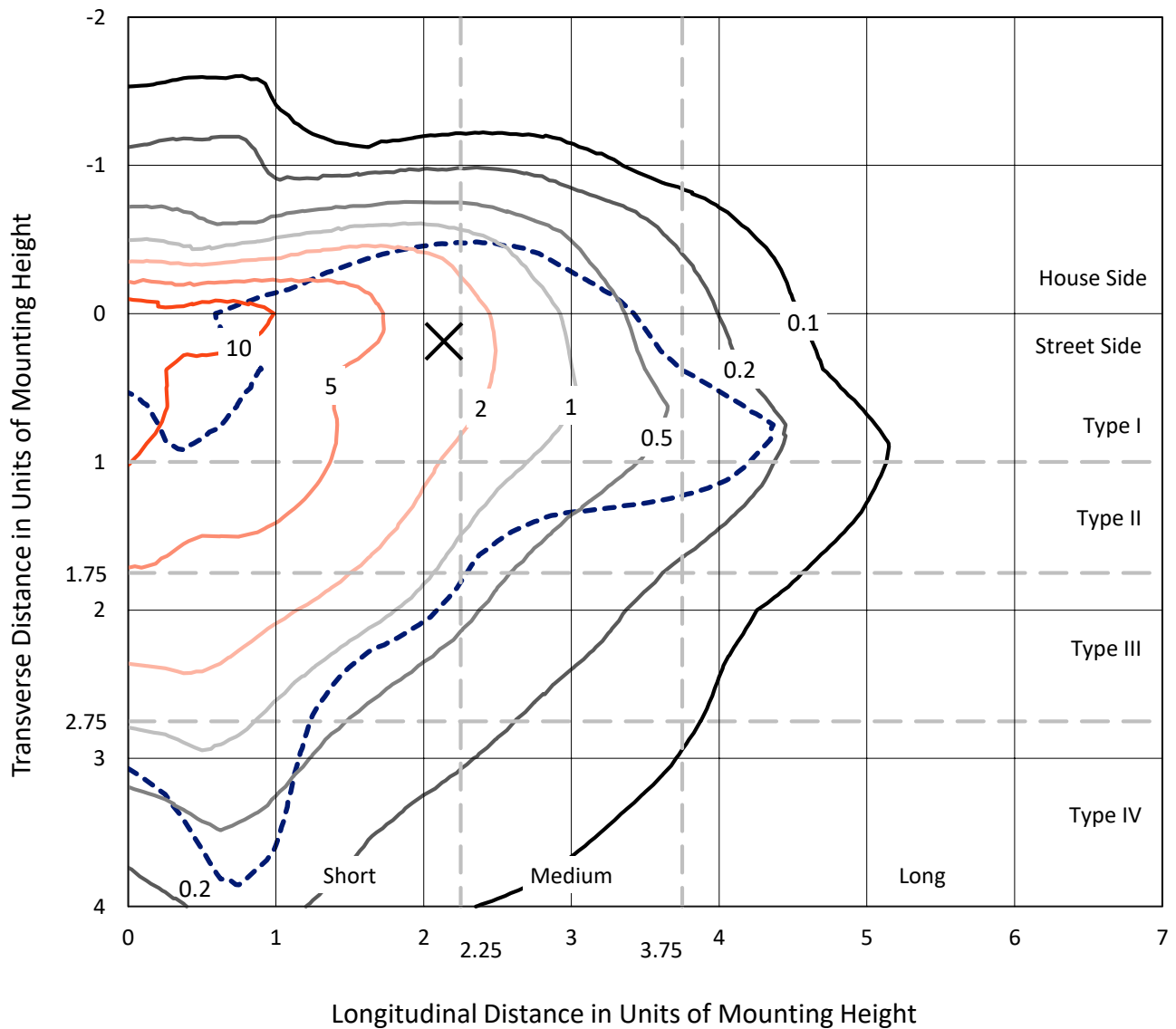


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Iso-Footcandle Lines of Horizontal Illumination

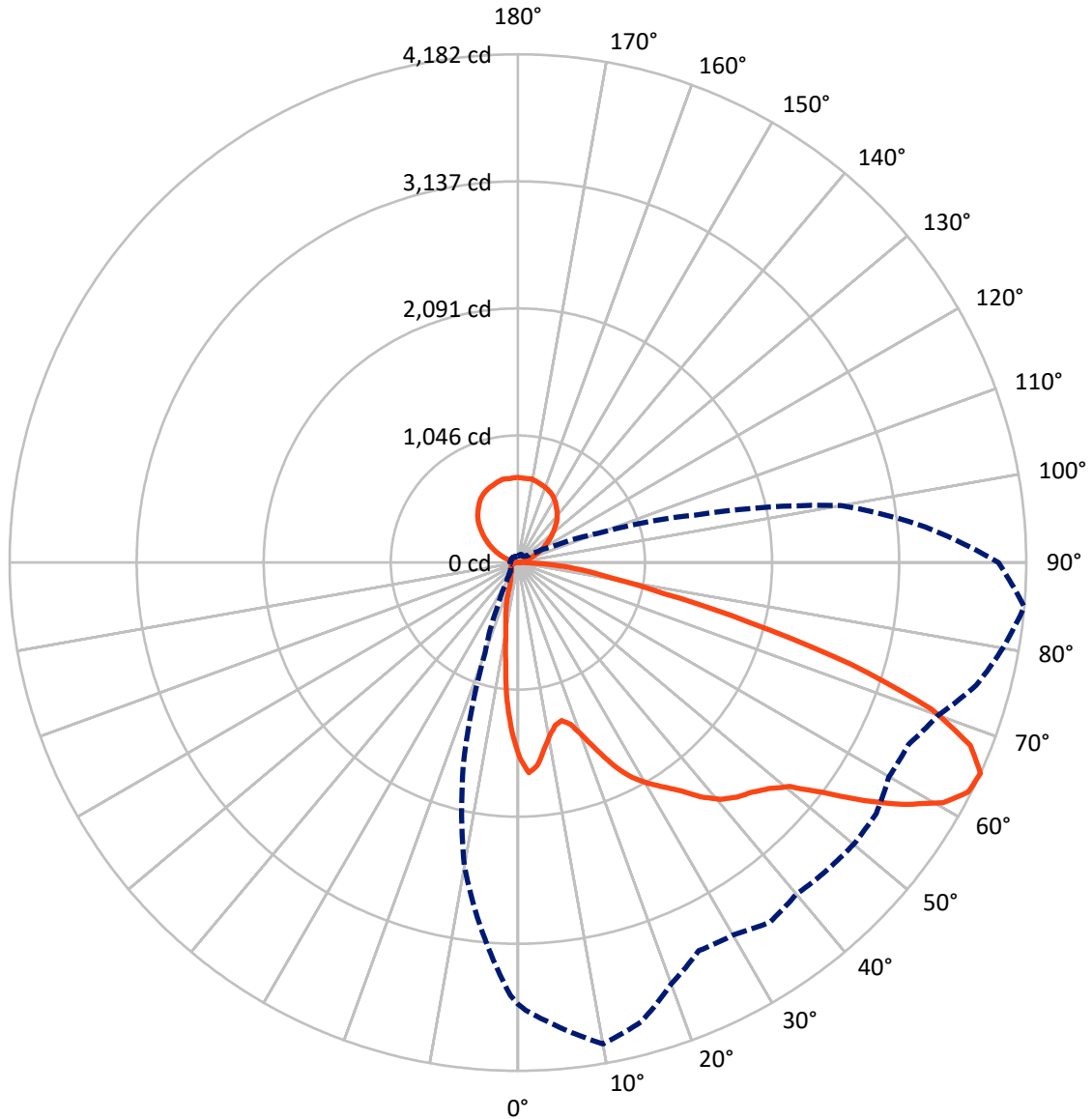
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 17.5 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 85-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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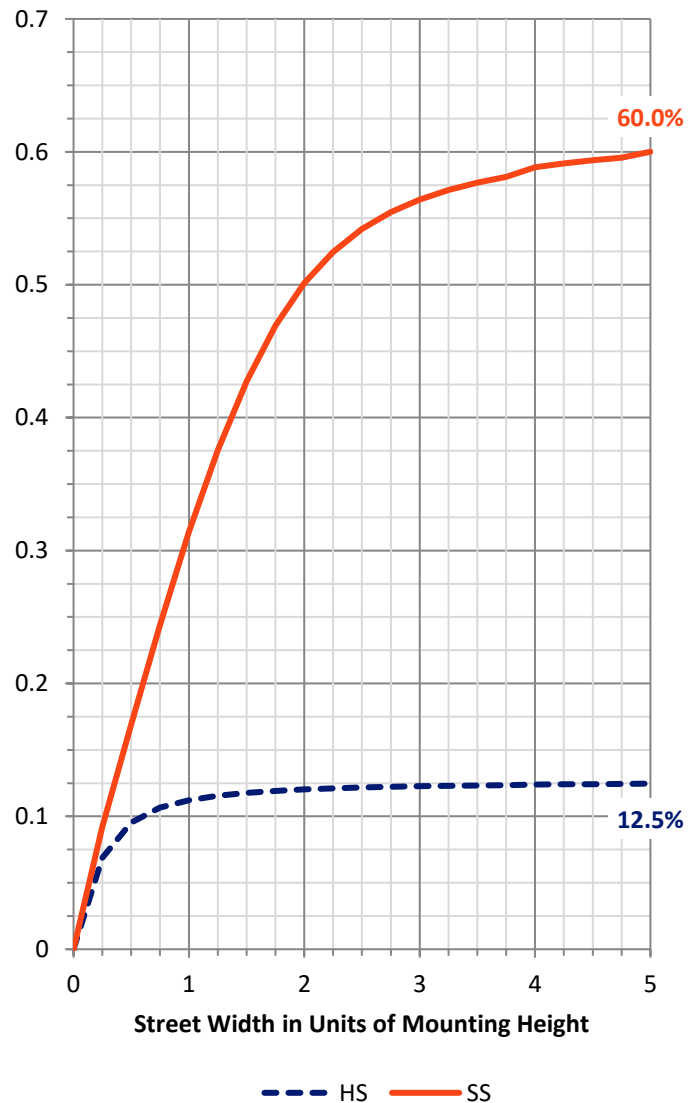
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	832.2	867.6	1699.8
	% Fixture	12.6	13.2	25.8
Street Side	Lumens	4017.5	867.8	4885.2
	% Fixture	61.0	13.2	74.2
Total	Lumens	4849.7	1735.3	6585.0
	% Fixture	73.6	26.4	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.7	1.8
10°-20°	228.3	3.5
20°-30°	325.6	4.9
30°-40°	472.4	7.2
40°-50°	675.8	10.3
50°-60°	1037.5	15.8
60°-70°	1200.9	18.2
70°-80°	612.7	9.3
80°-90°	177.8	2.7
90°-100°	9.5	0.1
100°-110°	57.4	0.9
110°-120°	166.1	2.5
120°-130°	273.2	4.1
130°-140°	336.8	5.1
140°-150°	344.6	5.2
150°-160°	290.3	4.4
160°-170°	191.2	2.9
170°-180°	66.3	1.0
0°-90°	4849.7	73.6
0°-180°	6585.0	100.0



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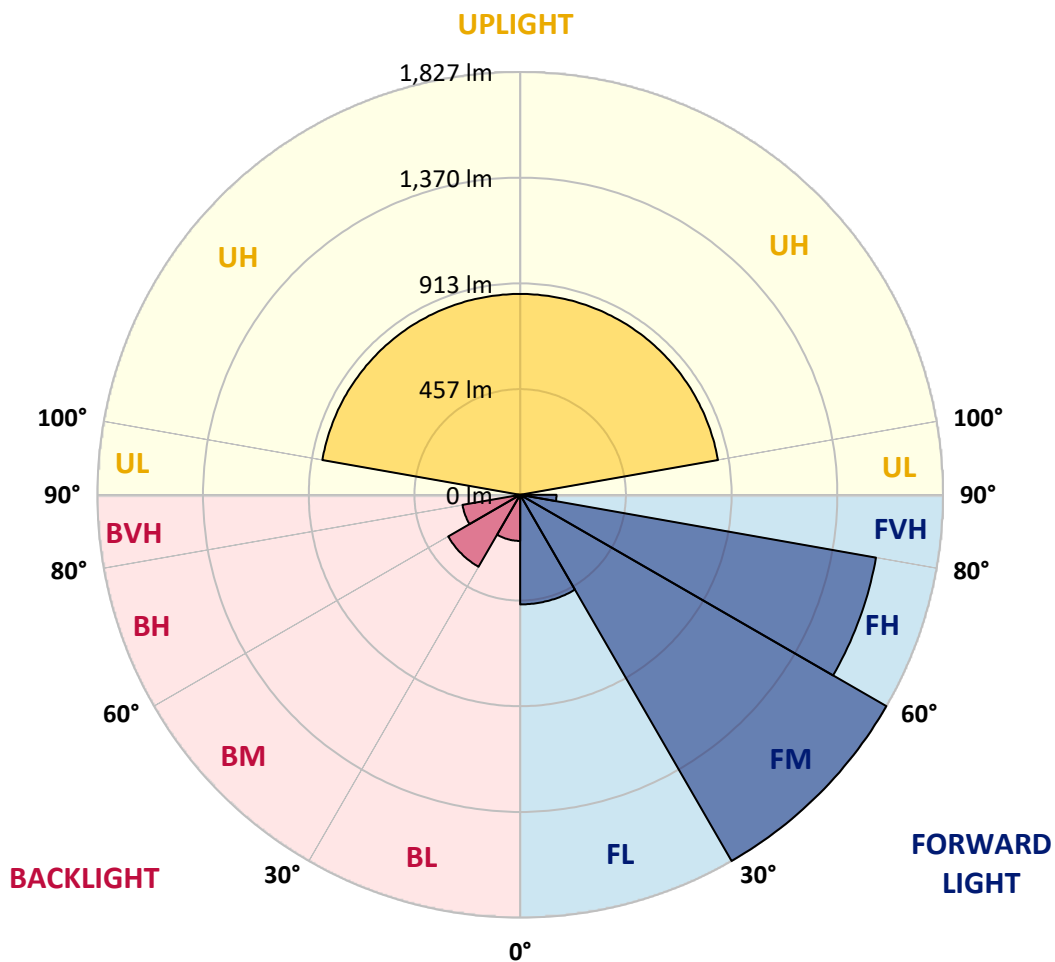
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	473.6	7.2			
FM	(30°-60°)	1826.5	27.7			
FH	(60°-80°)	1560.6	23.7			G1/1800
FVH	(80°-90°)	156.8	2.4			G2/225
BL	(0°-30°)	199.1	3.0	B1/500		
BM	(30°-60°)	359.1	5.5	B1/1000		
BH	(60°-80°)	253.0	3.8	B1/500		G1/500
BVH	(80°-90°)	21.1	0.3			G1/100
UL	(90°-100°)	9.5	0.1		U1/10	
UH	(100°-180°)	867.6	13.2		U4/1000	

BUG Rating: B1-U5-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	1°	5°	10°	15°	20°	25°	30°	35°	40°	45°
0°	1601.9	1601.9	1601.9	1601.9	1601.9	1601.9	1601.9	1601.9	1601.9	1601.9	1601.9
2.5°	1658.2	1659.8	1682.7	1704.7	1732.4	1728.4	1751.2	1768.3	1783.9	1786.3	1797.7
5°	1557.0	1573.3	1624.7	1668.8	1724.3	1767.5	1814.0	1850.8	1877.7	1903.0	1906.3
7.5°	1415.0	1427.2	1486.8	1556.2	1636.1	1693.3	1763.5	1824.7	1867.9	1908.7	1917.7
10°	1293.4	1304.8	1370.9	1460.7	1530.9	1605.1	1677.8	1727.5	1783.9	1818.9	1836.1
12.5°	1234.7	1248.5	1311.4	1393.0	1464.8	1536.6	1591.3	1634.5	1666.3	1672.9	1677.8
15°	1257.5	1264.9	1334.2	1406.8	1464.0	1499.9	1514.6	1540.7	1538.2	1551.3	1553.7
17.5°	1349.7	1346.5	1419.9	1470.5	1498.2	1494.2	1471.3	1457.4	1433.0	1425.6	1446.8
20°	1508.0	1519.5	1566.8	1597.8	1569.2	1503.1	1440.3	1397.1	1362.8	1351.4	1348.9
22.5°	1693.3	1708.0	1759.4	1743.1	1670.4	1549.6	1435.4	1366.0	1323.6	1311.4	1306.5
25°	1887.5	1897.3	1923.4	1867.9	1765.9	1609.2	1469.7	1372.6	1316.3	1298.3	1295.9
27.5°	2044.2	2054.0	2041.7	1978.1	1830.4	1676.1	1517.0	1401.9	1328.5	1310.6	1302.4
30°	2172.3	2177.2	2136.4	2057.2	1910.3	1750.4	1579.0	1453.4	1367.7	1326.9	1321.2
32.5°	2315.9	2312.6	2233.5	2124.1	1978.1	1817.3	1650.0	1511.3	1405.2	1355.4	1346.5
35°	2473.4	2444.8	2305.3	2190.2	2024.6	1868.7	1714.5	1572.5	1465.6	1399.5	1388.1
37.5°	2613.8	2584.4	2397.5	2242.5	2071.1	1908.7	1765.1	1651.7	1557.8	1497.4	1492.5
40°	2723.1	2687.2	2467.7	2277.6	2093.9	1938.1	1824.7	1751.2	1689.2	1640.2	1640.2
42.5°	2811.2	2772.1	2536.2	2318.4	2114.3	1983.0	1924.2	1898.9	1885.9	1858.9	1868.7
45°	2896.1	2856.1	2592.5	2344.5	2160.0	2070.3	2078.4	2100.5	2139.6	2124.1	2138.0
47.5°	2976.9	2937.7	2656.2	2386.1	2248.2	2227.0	2269.4	2357.5	2434.2	2494.6	2537.1
50°	3112.4	3065.8	2770.4	2508.5	2386.9	2397.5	2519.9	2692.9	2817.8	2873.3	2870.0
52.5°	3369.4	3303.3	3016.1	2737.0	2585.2	2644.0	2788.4	3006.3	3169.5	3212.7	3229.9
55°	3683.6	3631.4	3371.0	3039.7	2929.6	2950.0	3129.5	3375.9	3501.6	3546.5	3561.2
57.5°	3868.0	3854.1	3690.9	3363.7	3256.8	3248.6	3482.8	3684.4	3792.9	3835.4	3822.3
59°	3911.3	3915.3	3822.3	3593.0	3446.1	3428.2	3666.4	3853.3	3943.9	3957.0	3950.4
60°	3907.2	3930.0	3918.6	3718.7	3566.1	3543.2	3744.0	3921.9	3997.8	4018.2	3995.3
62.5°	3823.1	3862.3	3970.8	3949.6	3837.8	3721.1	3815.8	3944.7	3993.7	3974.1	3957.0
65°	3632.2	3683.6	3834.5	4022.2	3914.5	3689.3	3523.6	3538.3	3612.6	3563.6	3587.3
67.5°	3302.5	3361.2	3441.2	3867.2	3710.5	3332.7	3047.9	2908.3	2873.3	2920.6	2995.7
70°	2686.4	2724.7	2927.1	3529.3	3258.4	2739.4	2382.0	2195.9	2133.9	2243.3	2320.0
72.5°	1894.8	1952.0	2218.8	2920.6	2680.7	2194.3	1802.6	1631.3	1569.2	1574.1	1641.0
75°	1153.1	1230.6	1550.5	2309.4	2112.7	1681.0	1373.4	1250.2	1231.4	1220.8	1209.4
77.5°	760.5	789.9	1019.2	1593.7	1424.8	1195.5	1030.7	1081.2	1137.6	1149.8	1164.5
80°	515.7	524.7	661.0	1118.0	938.4	882.9	833.2	952.3	1059.2	1078.8	1068.2
82.5°	317.4	344.4	461.1	754.0	748.3	722.2	658.5	751.6	822.6	834.8	856.8
85°	110.2	115.1	283.2	665.9	760.5	768.7	542.7	428.4	481.5	472.5	339.5
87.5°	47.3	53.0	88.1	445.6	514.9	426.0	248.1	220.3	169.7	95.5	92.2
90°	8.3	8.3	7.4	10.1	19.2	15.7	15.3	10.4	8.0	7.5	7.0
92.5°	4.0	4.0	4.0	4.5	5.0	5.5	6.0	6.0	6.0	6.0	6.0
95°	5.0	5.0	5.0	5.5	6.0	6.5	7.0	7.0	7.0	7.0	7.0
97.5°	7.0	7.0	7.0	7.5	8.0	8.0	8.0	8.5	9.0	9.0	9.0
100°	8.0	8.0	8.0	8.5	9.0	9.5	10.0	11.0	12.0	16.5	21.0
102.5°	11.0	11.0	11.0	12.0	13.0	15.5	18.0	22.5	27.0	33.5	40.0
105°	21.0	21.2	22.0	24.5	27.0	31.5	36.0	42.0	48.0	55.5	63.0
107.5°	41.0	41.2	42.0	45.5	49.0	53.5	58.0	65.5	73.0	80.5	88.0



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CANDELA DISTRIBUTION (continued):

	0°	1°	5°	10°	15°	20°	25°	30°	35°	40°	45°
110°	66.0	66.4	68.0	71.0	74.0	80.5	87.0	94.5	102.0	108.0	114.0
112.5°	99.0	99.0	99.0	102.5	106.0	113.5	121.0	127.5	134.0	138.5	143.0
115°	140.0	139.8	139.0	143.0	147.0	153.0	159.0	163.5	168.0	171.0	174.0
117.5°	184.0	184.0	184.0	186.5	189.0	193.0	197.0	199.5	202.0	203.5	205.0
120°	225.0	224.6	223.0	224.5	226.0	229.5	233.0	235.0	237.0	240.0	243.0
122.5°	263.0	262.4	260.0	260.5	261.0	264.0	267.0	269.0	271.0	274.0	277.0
125°	298.0	297.2	294.0	295.0	296.0	297.5	299.0	302.0	305.0	307.5	310.0
127.5°	330.0	329.8	329.0	329.0	329.0	331.0	333.0	336.0	339.0	339.5	340.0
130°	363.0	362.6	361.0	361.5	362.0	364.0	366.0	368.0	370.0	371.0	372.0
132.5°	396.0	395.6	394.0	393.5	393.0	397.0	401.0	402.5	404.0	404.5	405.0
135°	429.0	428.4	426.0	426.0	426.0	429.0	432.0	433.5	435.0	436.0	437.0
137.5°	460.0	459.4	457.0	458.0	459.0	459.5	460.0	462.0	464.0	466.0	468.0
140°	488.0	487.4	485.0	486.0	487.0	488.0	489.0	490.0	491.0	494.0	497.0
142.5°	518.0	517.4	515.0	516.0	517.0	517.5	518.0	519.5	521.0	523.0	525.0
145°	550.0	549.2	546.0	545.0	544.0	545.5	547.0	548.5	550.0	550.5	551.0
147.5°	575.0	574.4	572.0	571.5	571.0	572.5	574.0	574.0	574.0	574.5	575.0
150°	595.0	594.4	592.0	592.5	593.0	593.0	593.0	593.0	593.0	593.0	593.0
152.5°	611.0	610.4	608.0	608.0	608.0	608.5	609.0	609.5	610.0	610.0	610.0
155°	629.0	628.2	625.0	625.0	625.0	626.0	627.0	628.5	630.0	629.0	628.0
157.5°	646.0	645.4	643.0	643.0	643.0	643.5	644.0	645.0	646.0	645.5	645.0
160°	663.0	662.4	660.0	659.5	659.0	657.5	656.0	655.5	655.0	655.0	655.0
162.5°	673.0	672.2	669.0	669.0	669.0	667.0	665.0	663.0	661.0	662.0	663.0
165°	681.0	680.4	678.0	677.0	676.0	676.0	676.0	674.5	673.0	673.0	673.0
167.5°	690.0	689.4	687.0	685.5	684.0	685.0	686.0	687.0	688.0	686.5	685.0
170°	698.0	697.4	695.0	693.5	692.0	692.0	692.0	692.5	693.0	692.0	691.0
172.5°	699.0	698.6	697.0	696.0	695.0	694.0	693.0	691.5	690.0	690.0	690.0
175°	700.0	699.6	698.0	697.5	697.0	696.0	695.0	693.0	691.0	690.5	690.0
177.5°	707.0	706.6	705.0	702.5	700.0	699.5	699.0	698.0	697.0	696.0	695.0
180°	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1601.9	1601.9	1601.9	1601.9	1601.9	1601.9	1601.9	1601.9	1601.9	1601.9	1601.9
2.5°	1795.3	1784.7	1791.2	1782.2	1767.5	1757.7	1746.3	1731.6	1714.5	1691.6	1668.8
5°	1898.9	1890.8	1870.4	1841.0	1800.2	1765.9	1725.1	1677.0	1637.0	1585.6	1537.4
7.5°	1907.9	1894.8	1857.3	1802.6	1739.8	1676.1	1628.0	1549.6	1499.1	1417.5	1362.8
10°	1826.3	1827.1	1789.6	1738.2	1672.9	1597.8	1528.4	1442.7	1368.5	1285.3	1193.9
12.5°	1706.3	1717.8	1719.4	1673.7	1610.0	1530.9	1453.4	1371.8	1279.5	1190.6	1106.5
15°	1570.1	1602.7	1605.1	1593.7	1560.3	1493.3	1422.3	1348.9	1255.1	1158.0	1063.3
17.5°	1448.5	1479.5	1508.0	1534.1	1535.8	1504.0	1460.7	1397.9	1304.0	1189.8	1078.8
20°	1356.2	1389.7	1438.7	1486.8	1539.9	1556.2	1559.4	1519.5	1419.1	1279.5	1129.4
22.5°	1317.9	1357.1	1406.8	1497.4	1591.3	1649.2	1681.8	1681.8	1576.6	1413.4	1212.6
25°	1309.7	1341.6	1417.5	1530.1	1655.7	1756.9	1818.9	1860.6	1784.7	1585.6	1315.4
27.5°	1315.4	1358.7	1452.5	1567.6	1699.0	1828.7	1930.7	2003.4	1932.4	1703.1	1410.9
30°	1338.3	1402.8	1499.9	1619.0	1754.5	1891.6	2014.8	2107.0	2054.8	1810.0	1501.5
32.5°	1378.3	1456.6	1566.8	1674.5	1809.1	1957.7	2079.3	2200.8	2162.5	1884.2	1549.6
35°	1437.9	1530.1	1630.4	1739.0	1867.9	2016.4	2146.2	2305.3	2291.4	1977.3	1597.8
37.5°	1534.1	1628.8	1721.0	1814.0	1936.5	2080.9	2242.5	2445.7	2434.2	2115.2	1675.3
40°	1703.9	1759.4	1827.9	1887.5	2002.5	2140.5	2313.5	2561.5	2602.3	2233.5	1743.9
42.5°	1914.4	1947.1	1966.6	1983.0	2041.7	2171.5	2364.9	2639.1	2706.0	2321.6	1796.9
45°	2182.9	2173.1	2133.9	2096.4	2089.9	2189.4	2388.5	2696.2	2787.6	2407.3	1850.8
47.5°	2500.3	2479.1	2372.2	2249.0	2180.4	2222.1	2430.2	2780.2	2887.9	2519.9	1917.7
50°	2866.7	2817.0	2642.3	2434.2	2307.7	2314.3	2535.4	2896.9	3020.1	2666.8	2042.5
52.5°	3206.2	3117.3	2909.2	2634.2	2453.0	2475.0	2724.7	3138.5	3291.1	2910.0	2252.3
55°	3505.7	3391.4	3167.0	2865.9	2701.9	2740.2	3027.5	3458.4	3602.8	3199.7	2464.4
57.5°	3760.3	3638.7	3417.6	3152.3	2948.3	2980.2	3297.6	3755.4	3852.5	3460.0	2667.6
59°	3876.2	3756.2	3552.2	3307.4	3116.4	3183.4	3488.5	3903.1	3944.7	3560.4	2745.1
60°	3932.5	3812.5	3633.0	3393.9	3219.3	3307.4	3589.7	4014.9	3979.0	3575.0	2774.5
62.5°	3928.4	3844.3	3726.0	3562.8	3531.0	3677.9	3918.6	4158.5	4002.7	3532.6	2793.3
65°	3606.1	3598.7	3525.3	3544.0	3677.1	3903.9	4051.6	4182.2	3953.7	3363.7	2702.7
67.5°	3007.9	3038.1	3047.9	3163.0	3473.9	3859.0	3988.8	4014.1	3740.7	3002.2	2421.2
70°	2322.4	2255.5	2365.7	2568.9	3016.9	3513.0	3697.5	3609.3	3304.9	2514.2	1977.3
72.5°	1644.3	1663.9	1822.2	2085.8	2541.9	3056.0	3344.9	2864.3	2486.5	1881.8	1401.9
75°	1237.1	1329.3	1406.0	1637.0	2064.6	2617.8	2856.1	1969.1	1619.8	1297.5	917.2
77.5°	1185.7	1178.4	1119.6	1168.6	1488.4	1833.6	2037.6	1228.9	1014.3	848.7	554.1
80°	1095.9	1033.1	926.2	878.9	937.6	1177.5	1293.4	789.9	674.9	593.3	312.5
82.5°	850.3	807.9	695.3	692.0	781.8	836.4	889.5	559.8	507.6	480.6	191.8
85°	539.4	554.1	568.0	692.8	867.4	877.2	692.0	341.1	267.7	377.0	122.4
87.5°	159.9	260.3	315.8	536.1	781.8	784.2	520.6	111.8	100.4	117.5	71.0
90°	7.0	7.0	8.0	9.0	9.0	9.0	8.8	7.0	7.0	7.0	8.0
92.5°	6.5	7.0	7.0	7.0	6.5	6.0	6.0	6.0	6.0	6.0	6.0
95°	7.0	7.0	7.5	8.0	7.5	7.0	7.0	7.0	7.0	7.0	7.0
97.5°	10.5	12.0	11.0	10.0	9.5	9.0	8.5	8.0	8.0	8.0	8.5
100°	25.0	29.0	27.5	26.0	24.5	23.0	21.0	19.0	19.0	19.0	21.0
102.5°	45.0	50.0	48.5	47.0	44.5	42.0	40.5	39.0	38.0	39.0	40.5
105°	67.5	72.0	71.0	70.0	67.5	65.0	63.0	61.0	61.0	61.0	63.0
107.5°	91.5	95.0	94.5	94.0	92.0	90.0	88.5	87.0	86.0	87.0	88.5



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CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
110°	117.0	120.0	120.5	121.0	120.0	119.0	117.5	116.0	117.0	116.0	117.5
112.5°	145.5	148.0	149.0	150.0	149.5	149.0	148.0	147.0	147.0	147.0	148.0
115°	176.5	179.0	180.5	182.0	180.5	179.0	178.0	177.0	178.0	177.0	178.0
117.5°	208.0	211.0	213.0	215.0	212.5	210.0	209.0	208.0	209.0	208.0	209.0
120°	244.5	246.0	248.0	250.0	247.5	245.0	244.0	243.0	243.0	243.0	244.0
122.5°	278.0	279.0	281.0	283.0	280.5	278.0	277.0	276.0	277.0	276.0	277.0
125°	311.5	313.0	314.0	315.0	312.5	310.0	310.0	310.0	310.0	310.0	310.0
127.5°	342.5	345.0	345.5	346.0	346.0	346.0	345.5	345.0	347.0	345.0	345.5
130°	374.5	377.0	379.0	381.0	381.0	381.0	380.0	379.0	380.0	379.0	380.0
132.5°	408.0	411.0	413.5	416.0	415.0	414.0	414.0	414.0	415.0	414.0	414.0
135°	440.0	443.0	445.5	448.0	447.5	447.0	448.5	450.0	451.0	450.0	448.5
137.5°	470.5	473.0	474.0	475.0	475.5	476.0	478.5	481.0	482.0	481.0	478.5
140°	498.5	500.0	501.0	502.0	503.0	504.0	506.5	509.0	511.0	509.0	506.5
142.5°	526.0	527.0	530.0	533.0	533.0	533.0	533.5	534.0	536.0	534.0	533.5
145°	553.5	556.0	559.0	562.0	561.5	561.0	559.5	558.0	560.0	558.0	559.5
147.5°	577.5	580.0	582.5	585.0	585.5	586.0	584.5	583.0	585.0	583.0	584.5
150°	595.0	597.0	598.5	600.0	601.5	603.0	604.5	606.0	610.0	606.0	604.5
152.5°	610.5	611.0	612.5	614.0	616.0	618.0	620.5	623.0	628.0	623.0	620.5
155°	627.0	626.0	628.5	631.0	633.5	636.0	637.0	638.0	641.0	638.0	637.0
157.5°	644.5	644.0	646.0	648.0	649.0	650.0	650.0	650.0	655.0	650.0	650.0
160°	656.5	658.0	661.0	664.0	662.5	661.0	660.5	660.0	666.0	660.0	660.5
162.5°	665.0	667.0	669.0	671.0	670.5	670.0	669.0	668.0	674.0	668.0	669.0
165°	672.5	672.0	674.5	677.0	678.5	680.0	679.0	678.0	682.0	678.0	679.0
167.5°	681.5	678.0	681.0	684.0	686.0	688.0	688.0	688.0	694.0	688.0	688.0
170°	688.5	686.0	687.5	689.0	691.5	694.0	695.0	696.0	701.0	696.0	695.0
172.5°	689.5	689.0	690.5	692.0	693.0	694.0	695.0	696.0	701.0	696.0	695.0
175°	690.0	690.0	692.5	695.0	695.5	696.0	695.0	694.0	699.0	694.0	695.0
177.5°	694.5	694.0	696.5	699.0	700.0	701.0	699.5	698.0	702.0	698.0	699.5
180°	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0



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CATALOG NUMBER: ISW-AF-1200-LED-E1-SLL-8030-ULG

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1601.9	1601.9	1601.9	1601.9	1601.9	1601.9	1601.9	1601.9	1601.9	1601.9	1601.9
2.5°	1645.1	1641.9	1619.0	1580.7	1583.9	1566.0	1543.1	1506.4	1499.1	1478.7	1475.4
5°	1496.6	1458.3	1408.5	1348.1	1325.2	1294.2	1262.4	1239.6	1211.0	1184.9	1220.0
7.5°	1298.3	1242.0	1184.1	1120.4	1083.7	1033.1	1006.2	953.9	915.6	908.2	878.1
10°	1132.7	1061.7	995.6	938.4	869.9	822.6	788.3	759.7	733.6	701.8	682.2
12.5°	1022.5	942.5	872.3	801.3	768.7	729.5	708.3	681.4	643.9	616.9	590.8
15°	972.7	886.2	809.5	747.5	700.2	663.4	625.9	593.3	552.5	522.3	492.1
17.5°	966.2	853.6	756.5	687.1	635.7	595.7	545.9	502.7	452.9	419.4	394.1
20°	973.5	829.1	707.5	616.9	564.7	494.5	448.0	395.0	346.0	301.9	261.9
22.5°	1002.9	816.0	659.4	559.8	482.3	402.3	352.5	284.8	243.2	200.7	185.2
25°	1042.9	807.9	617.7	497.0	399.0	319.9	252.2	195.8	177.1	166.5	160.8
27.5°	1085.3	793.2	571.2	439.0	332.1	235.8	188.5	164.8	157.5	151.8	147.7
30°	1117.2	764.6	514.1	377.0	264.4	201.6	168.1	152.6	147.7	141.2	137.1
32.5°	1131.0	720.6	462.7	318.3	222.8	173.0	146.9	137.9	133.0	127.3	124.9
35°	1128.6	670.8	436.6	295.4	204.0	153.4	128.9	123.2	116.7	111.0	105.3
37.5°	1131.0	625.1	416.2	289.7	195.8	138.7	117.5	113.4	108.5	102.8	97.9
40°	1140.8	599.8	406.4	277.5	189.3	133.0	108.5	104.5	103.6	97.1	93.0
42.5°	1144.9	602.2	401.5	260.3	173.0	131.4	108.5	99.6	99.6	94.7	89.8
45°	1140.0	620.2	404.8	250.5	160.8	123.2	114.2	99.6	97.1	93.0	88.1
47.5°	1154.7	633.2	404.8	248.9	152.6	115.1	108.5	109.3	98.7	93.8	86.5
50°	1215.1	645.5	396.6	246.4	150.2	106.9	102.8	107.7	111.0	95.5	87.3
52.5°	1322.0	661.0	387.6	242.4	146.9	100.4	95.5	101.2	113.4	100.4	87.3
55°	1431.3	688.7	381.9	235.8	142.0	96.3	86.5	97.1	103.6	99.6	86.5
57.5°	1548.0	718.9	376.2	220.3	130.6	92.2	83.2	84.9	93.0	96.3	84.1
59°	1583.1	733.6	371.3	208.9	120.8	88.9	80.8	78.3	83.2	92.2	82.4
60°	1608.4	734.4	365.6	199.1	115.1	87.3	79.2	75.9	77.5	94.7	83.2
62.5°	1610.9	733.6	347.6	178.7	103.6	84.1	76.7	72.6	71.0	79.2	84.9
65°	1509.7	699.3	315.0	168.1	104.5	80.8	72.6	69.4	66.1	67.7	73.4
67.5°	1320.3	611.2	280.7	170.6	110.2	78.3	69.4	66.1	63.7	62.0	64.5
70°	998.8	507.6	270.9	176.3	115.1	76.7	64.5	61.2	59.6	58.8	58.8
72.5°	692.0	417.8	260.3	180.3	119.1	75.9	59.6	56.3	55.5	54.7	54.7
75°	445.6	303.6	215.4	153.4	108.5	69.4	53.9	50.6	49.8	49.0	49.8
77.5°	263.6	212.2	158.3	107.7	79.2	55.5	46.5	44.1	44.1	44.1	44.9
80°	146.1	125.7	105.3	69.4	56.3	41.6	38.4	35.9	35.9	36.7	38.4
82.5°	87.3	69.4	59.6	44.1	38.4	29.4	28.6	26.9	27.7	28.6	30.2
85°	57.1	44.1	35.9	29.4	26.1	18.8	16.3	17.1	18.0	19.6	20.4
87.5°	31.8	24.5	19.6	17.1	15.5	8.2	6.5	6.5	8.2	9.8	11.4
90°	9.0	9.0	9.0	8.0	7.0	7.0	7.0	7.5	8.0	8.0	8.0
92.5°	6.0	6.5	7.0	7.0	7.0	6.5	6.0	6.0	6.0	6.0	6.0
95°	7.0	7.5	8.0	7.5	7.0	7.0	7.0	7.0	7.0	7.0	7.0
97.5°	9.0	9.5	10.0	11.0	12.0	10.5	9.0	9.0	9.0	8.5	8.0
100°	23.0	24.5	26.0	27.5	29.0	25.0	21.0	16.5	12.0	11.0	10.0
102.5°	42.0	44.5	47.0	48.5	50.0	45.0	40.0	33.5	27.0	22.5	18.0
105°	65.0	67.5	70.0	71.0	72.0	67.5	63.0	55.5	48.0	42.0	36.0
107.5°	90.0	92.0	94.0	94.5	95.0	91.5	88.0	80.5	73.0	65.5	58.0



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REPORT N
 CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	
110°	119.0	120.0	121.0	120.5	120.0	117.0	114.0	108.0	102.0	94.5	87.0	0°
112.5°	149.0	149.5	150.0	149.0	148.0	145.5	143.0	138.5	134.0	127.5	121.0	2.5°
115°	179.0	180.5	182.0	180.5	179.0	176.5	174.0	171.0	168.0	163.5	159.0	5°
117.5°	210.0	212.5	215.0	213.0	211.0	208.0	205.0	203.5	202.0	199.5	197.0	7.5°
120°	245.0	247.5	250.0	248.0	246.0	244.5	243.0	240.0	237.0	235.0	233.0	10°
122.5°	278.0	280.5	283.0	281.0	279.0	278.0	277.0	274.0	271.0	269.0	267.0	12.5°
125°	310.0	312.5	315.0	314.0	313.0	311.5	310.0	307.5	305.0	302.0	299.0	15°
127.5°	346.0	346.0	346.0	345.5	345.0	342.5	340.0	339.5	339.0	336.0	333.0	17.5°
130°	381.0	381.0	381.0	379.0	377.0	374.5	372.0	371.0	370.0	368.0	366.0	20°
132.5°	414.0	415.0	416.0	413.5	411.0	408.0	405.0	404.5	404.0	402.5	401.0	22.5°
135°	447.0	447.5	448.0	445.5	443.0	440.0	437.0	436.0	435.0	433.5	432.0	25°
137.5°	476.0	475.5	475.0	474.0	473.0	470.5	468.0	466.0	464.0	462.0	460.0	27.5°
140°	504.0	503.0	502.0	501.0	500.0	498.5	497.0	494.0	491.0	490.0	489.0	30°
142.5°	533.0	533.0	533.0	530.0	527.0	526.0	525.0	523.0	521.0	519.5	518.0	32.5°
145°	561.0	561.5	562.0	559.0	556.0	553.5	551.0	550.5	550.0	548.5	547.0	35°
147.5°	586.0	585.5	585.0	582.5	580.0	577.5	575.0	574.5	574.0	574.0	574.0	37.5°
150°	603.0	601.5	600.0	598.5	597.0	595.0	593.0	593.0	593.0	593.0	593.0	40°
152.5°	618.0	616.0	614.0	612.5	611.0	610.5	610.0	610.0	610.0	609.5	609.0	42.5°
155°	636.0	633.5	631.0	628.5	626.0	627.0	628.0	629.0	630.0	628.5	627.0	45°
157.5°	650.0	649.0	648.0	646.0	644.0	644.5	645.0	645.5	646.0	645.0	644.0	47.5°
160°	661.0	662.5	664.0	661.0	658.0	656.5	655.0	655.0	655.0	655.5	656.0	50°
162.5°	670.0	670.5	671.0	669.0	667.0	665.0	663.0	662.0	661.0	663.0	665.0	52.5°
165°	680.0	678.5	677.0	674.5	672.0	672.5	673.0	673.0	673.0	674.5	676.0	55°
167.5°	688.0	686.0	684.0	681.0	678.0	681.5	685.0	686.5	688.0	687.0	686.0	57.5°
170°	694.0	691.5	689.0	687.5	686.0	688.5	691.0	692.0	693.0	692.5	692.0	59°
172.5°	694.0	693.0	692.0	690.5	689.0	689.5	690.0	690.0	690.0	691.5	693.0	60°
175°	696.0	695.5	695.0	692.5	690.0	690.0	690.0	690.5	691.0	693.0	695.0	62.5°
177.5°	701.0	700.0	699.0	696.5	694.0	694.5	695.0	696.0	697.0	698.0	699.0	65°
180°	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	67.5°
												70°
												72.5°
												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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REPORT NUMBER: P
 CATALOG NUMBER:

DISTRIBUTION (continued):

CANDELA DISTRIBUTION

160°	165°	170°	175°	180°	185°	190°	195°	200°	205°	210°	110°	160°
1601.9	1601.9	1601.9	1601.9	1601.9	1601.9	1601.9	1601.9	1601.9	1601.9	1601.9	110°	80.5
1486.8	1463.2	1437.9	1419.1	1427.2	1400.3	1402.8	1395.4	1392.2	1390.5	1373.4	112.5°	113.5
1177.5	1186.5	1149.0	1153.1	1164.5	1136.7	1118.0	1149.0	1144.9	1117.2	1132.7	115°	153.0
848.7	851.1	834.0	795.6	795.6	816.0	823.4	838.1	847.9	882.1	860.9	117.5°	193.0
648.7	625.9	608.8	591.6	581.8	561.4	566.3	584.3	595.7	615.3	630.8	120°	229.5
563.9	538.6	508.4	482.3	468.4	449.6	437.4	433.3	437.4	425.2	426.0	122.5°	264.0
468.4	445.6	412.1	398.2	372.1	357.4	349.3	338.7	330.5	313.4	306.0	125°	297.5
363.1	332.9	298.7	298.7	279.9	267.7	264.4	261.9	257.1	248.1	239.1	127.5°	331.0
241.5	222.0	202.4	192.6	194.2	192.6	187.7	195.8	195.8	199.1	197.5	130°	364.0
176.3	173.0	165.7	159.9	156.7	155.9	156.7	159.1	164.0	168.1	172.2	132.5°	397.0
158.3	156.7	150.2	144.4	143.6	142.0	142.0	144.4	145.3	146.1	145.3	135°	429.0
146.9	143.6	137.9	133.8	132.2	131.4	132.2	129.7	128.1	128.9	128.1	137.5°	459.5
133.0	130.6	124.9	121.6	120.8	120.8	118.3	117.5	115.9	116.7	115.9	140°	488.0
122.4	119.1	113.4	109.3	109.3	108.5	109.3	108.5	107.7	106.9	106.9	142.5°	517.5
102.8	102.0	96.3	94.7	95.5	97.9	97.9	97.9	98.7	97.9	97.9	145°	545.5
95.5	94.7	88.9	84.9	84.1	84.1	84.1	85.7	88.1	88.9	90.6	147.5°	572.5
90.6	89.8	84.1	80.8	79.2	78.3	77.5	77.5	78.3	81.6	84.1	150°	593.0
87.3	85.7	80.0	75.9	75.1	74.3	73.4	73.4	73.4	74.3	76.7	152.5°	608.5
85.7	83.2	76.7	72.6	71.0	70.2	70.2	71.0	70.2	70.2	70.2	155°	626.0
83.2	81.6	75.1	70.2	68.5	68.5	67.7	67.7	67.7	66.1	66.1	157.5°	643.5
82.4	80.0	73.4	68.5	66.9	66.1	65.3	66.1	64.5	63.7	62.8	160°	657.5
80.8	77.5	70.2	66.1	65.3	63.7	62.8	62.8	62.8	61.2	61.2	162.5°	667.0
80.0	75.9	68.5	64.5	62.8	61.2	60.4	60.4	62.0	60.4	60.4	165°	676.0
79.2	73.4	66.1	61.2	60.4	58.8	57.9	58.8	61.2	59.6	58.8	167.5°	685.0
75.9	71.8	64.5	60.4	58.8	57.1	56.3	57.1	58.8	58.8	58.8	170°	692.0
74.3	70.2	62.8	58.8	57.9	56.3	55.5	55.5	57.9	57.9	57.1	172.5°	694.0
71.8	68.5	61.2	56.3	54.7	54.7	53.9	53.9	54.7	54.7	55.5	175°	696.0
68.5	66.9	59.6	53.9	53.0	52.2	52.2	52.2	52.2	53.9	53.9	177.5°	699.5
65.3	64.5	57.1	52.2	50.6	50.6	50.6	50.6	50.6	51.4	52.2	180°	700.0
60.4	60.4	53.9	49.0	48.1	47.3	47.3	47.3	47.3	48.1	49.0		
55.5	56.3	49.8	44.9	44.1	44.1	44.1	44.1	44.9	44.9	45.7		
50.6	51.4	44.9	40.0	40.0	40.0	40.0	40.0	40.0	40.0	41.6		
45.7	45.7	38.4	33.5	34.3	35.1	35.9	35.1	35.1	35.9	38.4		
39.2	38.4	31.8	27.7	27.7	29.4	30.2	29.4	30.2	30.2	33.5		
31.0	31.0	24.5	20.4	20.4	23.7	23.7	23.7	24.5	25.3	27.7		
23.7	22.8	17.1	13.9	13.9	16.3	17.1	18.0	18.8	19.6	21.2		
13.9	13.9	9.0	5.7	6.5	7.3	9.8	9.8	9.8	11.4	13.9		
7.5	7.8	6.0	5.0	5.0	5.0	6.0	7.0	7.5	8.0	8.0		
5.5	5.0	4.5	4.0	4.0	4.0	4.5	5.0	5.5	6.0	6.0		
6.5	6.0	5.5	5.0	5.0	5.0	5.5	6.0	6.5	7.0	7.0		
8.0	8.0	7.5	7.0	7.0	7.0	7.5	8.0	8.0	8.0	8.5		
9.5	9.0	8.5	8.0	8.0	8.0	8.5	9.0	9.5	10.0	11.0		
15.5	13.0	12.0	11.0	11.0	11.0	12.0	13.0	15.5	18.0	22.5		
31.5	27.0	24.5	22.0	21.0	22.0	24.5	27.0	31.5	36.0	42.0		
53.5	49.0	45.5	42.0	41.0	42.0	45.5	49.0	53.5	58.0	65.5		

'227161
 ISW-AF-1200-LED-E1-SLL-8030-ULG

REPORT NUMBER: P227161
 CATALOG NUMBER: ISW-AF-1:

TION (continued):

CANDELA DISTRIBUTION (con

165°	170°	175°	180°	185°	190°	195°	200°	205°	210°		215°	220°
74.0	71.0	68.0	66.0	68.0	71.0	74.0	80.5	87.0	94.5	0°	1601.9	1601.9
106.0	102.5	99.0	99.0	99.0	102.5	106.0	113.5	121.0	127.5	2.5°	1388.1	1387.3
147.0	143.0	139.0	140.0	139.0	143.0	147.0	153.0	159.0	163.5	5°	1139.2	1131.8
189.0	186.5	184.0	184.0	184.0	186.5	189.0	193.0	197.0	199.5	7.5°	882.9	909.9
226.0	224.5	223.0	225.0	223.0	224.5	226.0	229.5	233.0	235.0	10°	636.5	655.3
261.0	260.5	260.0	263.0	260.0	260.5	261.0	264.0	267.0	269.0	12.5°	443.1	452.9
296.0	295.0	294.0	298.0	294.0	295.0	296.0	297.5	299.0	302.0	15°	305.2	324.8
329.0	329.0	329.0	330.0	329.0	329.0	329.0	331.0	333.0	336.0	17.5°	237.5	239.9
362.0	361.5	361.0	363.0	361.0	361.5	362.0	364.0	366.0	368.0	20°	195.8	197.5
393.0	393.5	394.0	396.0	394.0	393.5	393.0	397.0	401.0	402.5	22.5°	173.8	177.1
426.0	426.0	426.0	429.0	426.0	426.0	426.0	429.0	432.0	433.5	25°	146.1	149.3
459.0	458.0	457.0	460.0	457.0	458.0	459.0	459.5	460.0	462.0	27.5°	128.9	132.2
487.0	486.0	485.0	488.0	485.0	486.0	487.0	488.0	489.0	490.0	30°	118.3	120.0
517.0	516.0	515.0	518.0	515.0	516.0	517.0	517.5	518.0	519.5	32.5°	107.7	107.7
544.0	545.0	546.0	550.0	546.0	545.0	544.0	545.5	547.0	548.5	35°	98.7	99.6
571.0	571.5	572.0	575.0	572.0	571.5	571.0	572.5	574.0	574.0	37.5°	92.2	93.8
593.0	592.5	592.0	595.0	592.0	592.5	593.0	593.0	593.0	593.0	40°	86.5	87.3
608.0	608.0	608.0	611.0	608.0	608.0	608.0	608.5	609.0	609.5	42.5°	78.3	80.0
625.0	625.0	625.0	629.0	625.0	625.0	625.0	626.0	627.0	628.5	45°	71.0	71.8
643.0	643.0	643.0	646.0	643.0	643.0	643.0	643.5	644.0	645.0	47.5°	66.1	66.1
659.0	659.5	660.0	663.0	660.0	659.5	659.0	657.5	656.0	655.5	50°	62.8	63.7
669.0	669.0	669.0	673.0	669.0	669.0	669.0	667.0	665.0	663.0	52.5°	61.2	62.0
676.0	677.0	678.0	681.0	678.0	677.0	676.0	676.0	676.0	674.5	55°	60.4	62.0
684.0	685.5	687.0	690.0	687.0	685.5	684.0	685.0	686.0	687.0	57.5°	60.4	61.2
692.0	693.5	695.0	698.0	695.0	693.5	692.0	692.0	692.0	692.5	59°	59.6	60.4
695.0	696.0	697.0	699.0	697.0	696.0	695.0	694.0	693.0	691.5	60°	59.6	61.2
697.0	697.5	698.0	700.0	698.0	697.5	697.0	696.0	695.0	693.0	62.5°	57.1	58.8
700.0	702.5	705.0	707.0	705.0	702.5	700.0	699.5	699.0	698.0	65°	55.5	57.1
700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	67.5°	53.0	55.5
										70°	50.6	53.0
										72.5°	47.3	50.6
										75°	44.1	46.5
										77.5°	40.0	42.4
										80°	35.1	35.9
										82.5°	29.4	29.4
										85°	22.0	19.6
										87.5°	12.2	13.1
										90°	8.0	7.5
										92.5°	6.0	6.0
										95°	7.0	7.0
										97.5°	9.0	9.0
										100°	12.0	16.5
										102.5°	27.0	33.5
										105°	48.0	55.5
										107.5°	73.0	80.5



REPORT NUMBER: P227161

CATALOG NUMBER: ISW-AF-1200-LED-E:

200-LED-E1-SLL-8030-ULG

tinued):

CANDELA DISTRIBUTION (continued):

225°	230°	235°	240°	245°	250°	255°	260°	265°		215°	220°	225°
1601.9	1601.9	1601.9	1601.9	1601.9	1601.9	1601.9	1601.9	1601.9	110°	102.0	108.0	114.0
1370.1	1370.1	1394.6	1397.1	1368.5	1375.8	1389.7	1373.4	1391.3	112.5°	134.0	138.5	143.0
1149.8	1140.0	1140.8	1134.3	1145.7	1132.7	1146.5	1141.6	1137.6	115°	168.0	171.0	174.0
892.7	909.9	897.6	874.0	892.7	878.1	850.3	852.8	821.7	117.5°	202.0	203.5	205.0
670.8	658.5	652.0	640.6	610.4	616.1	585.1	590.0	600.6	120°	237.0	240.0	243.0
462.7	453.7	464.3	457.0	444.7	447.2	453.7	460.2	477.4	122.5°	271.0	274.0	277.0
324.8	320.7	318.3	323.1	337.0	344.4	355.0	374.6	384.4	125°	305.0	307.5	310.0
244.0	244.8	242.4	249.7	261.1	266.8	269.3	270.9	282.3	127.5°	339.0	339.5	340.0
201.6	204.8	204.0	206.5	203.2	199.9	202.4	197.5	193.4	130°	370.0	371.0	372.0
176.3	177.1	173.0	172.2	167.3	163.2	159.9	159.9	158.3	132.5°	404.0	404.5	405.0
149.3	150.2	146.1	146.1	145.3	147.7	146.1	142.8	142.0	135°	435.0	436.0	437.0
133.8	132.2	129.7	129.7	128.1	128.1	128.9	129.7	128.9	137.5°	464.0	466.0	468.0
120.0	118.3	117.5	118.3	117.5	118.3	119.1	118.3	119.1	140°	491.0	494.0	497.0
110.2	108.5	108.5	109.3	108.5	109.3	109.3	109.3	108.5	142.5°	521.0	523.0	525.0
102.0	100.4	100.4	100.4	99.6	97.9	96.3	93.8	91.4	145°	550.0	550.5	551.0
95.5	94.7	93.0	92.2	89.8	84.9	83.2	83.2	83.2	147.5°	574.0	574.5	575.0
89.8	88.1	87.3	84.1	80.8	79.2	79.2	79.2	79.2	150°	593.0	593.0	593.0
82.4	80.0	78.3	77.5	76.7	76.7	75.9	75.9	75.9	152.5°	610.0	610.0	610.0
73.4	72.6	72.6	73.4	73.4	73.4	73.4	72.6	73.4	155°	630.0	629.0	628.0
67.7	67.7	68.5	69.4	70.2	71.0	71.8	71.0	71.8	157.5°	646.0	645.5	645.0
65.3	65.3	65.3	66.9	67.7	68.5	70.2	70.2	70.2	160°	655.0	655.0	655.0
63.7	63.7	64.5	65.3	66.1	66.9	67.7	68.5	69.4	162.5°	661.0	662.0	663.0
62.8	63.7	62.8	63.7	64.5	66.1	66.9	66.9	67.7	165°	673.0	673.0	673.0
62.8	62.8	62.8	62.8	64.5	65.3	64.5	65.3	66.1	167.5°	688.0	686.5	685.0
62.8	62.8	62.0	62.8	63.7	64.5	63.7	63.7	65.3	170°	693.0	692.0	691.0
62.0	62.8	62.0	62.0	62.8	63.7	62.8	63.7	64.5	172.5°	690.0	690.0	690.0
60.4	61.2	60.4	61.2	61.2	62.0	62.0	62.0	62.8	175°	691.0	690.5	690.0
58.8	58.8	58.8	59.6	59.6	60.4	60.4	61.2	60.4	177.5°	697.0	696.0	695.0
57.1	57.1	57.1	57.9	57.9	58.8	59.6	58.8	58.8	180°	700.0	700.0	700.0
55.5	54.7	53.9	54.7	55.5	55.5	56.3	55.5	56.3				
53.0	52.2	51.4	51.4	52.2	52.2	53.0	52.2	52.2				
49.0	49.0	47.3	47.3	47.3	47.3	48.1	47.3	46.5				
44.1	44.1	42.4	42.4	42.4	42.4	41.6	41.6	41.6				
36.7	37.5	37.5	36.7	36.7	35.9	35.9	35.1	34.3				
27.7	29.4	30.2	30.2	30.2	30.2	30.2	28.6	26.9				
19.6	22.0	24.5	24.5	23.7	23.7	23.7	21.2	18.8				
12.2	14.7	15.5	17.1	14.7	13.9	13.9	12.2	11.4				
7.0	7.0	8.6	8.8	11.4	11.4	12.3	9.6	7.8				
6.0	6.5	7.0	7.0	7.0	6.5	6.0	6.0	6.0				
7.0	7.0	7.0	7.5	8.0	7.5	7.0	7.0	7.0				
9.0	10.5	12.0	11.0	10.0	9.5	9.0	8.5	8.0				
21.0	25.0	29.0	27.5	26.0	24.5	23.0	21.0	19.0				
40.0	45.0	50.0	48.5	47.0	44.5	42.0	40.5	39.0				
63.0	67.5	72.0	71.0	70.0	67.5	65.0	63.0	61.0				
88.0	91.5	95.0	94.5	94.0	92.0	90.0	88.5	87.0				



REPORT NUMBER: P227161

CATALOG NUMBER: ISW-AF-1200-LED-E1-SLL-803C

1-SLL-8030-ULG

CANDELA DISTRIBUTION (continued):

230°	235°	240°	245°	250°	255°	260°	265°		270°	275°	280°	285°
117.0	120.0	120.5	121.0	120.0	119.0	117.5	116.0	0°	1601.9	1601.9	1601.9	1601.9
145.5	148.0	149.0	150.0	149.5	149.0	148.0	147.0	2.5°	1375.8	1406.0	1410.1	1414.2
176.5	179.0	180.5	182.0	180.5	179.0	178.0	177.0	5°	1131.0	1161.2	1144.1	1151.4
208.0	211.0	213.0	215.0	212.5	210.0	209.0	208.0	7.5°	825.8	806.2	831.5	847.0
244.5	246.0	248.0	250.0	247.5	245.0	244.0	243.0	10°	603.0	625.9	635.7	653.6
278.0	279.0	281.0	283.0	280.5	278.0	277.0	276.0	12.5°	500.2	514.9	532.9	561.4
311.5	313.0	314.0	315.0	312.5	310.0	310.0	310.0	15°	405.6	416.2	439.0	466.8
342.5	345.0	345.5	346.0	346.0	346.0	345.5	345.0	17.5°	295.4	310.9	325.6	348.4
374.5	377.0	379.0	381.0	381.0	381.0	380.0	379.0	20°	198.3	204.8	222.8	233.4
408.0	411.0	413.5	416.0	415.0	414.0	414.0	414.0	22.5°	159.1	161.6	164.8	173.8
440.0	443.0	445.5	448.0	447.5	447.0	448.5	450.0	25°	142.8	144.4	146.9	150.2
470.5	473.0	474.0	475.0	475.5	476.0	478.5	481.0	27.5°	129.7	130.6	133.0	134.6
498.5	500.0	501.0	502.0	503.0	504.0	506.5	509.0	30°	118.3	117.5	118.3	120.8
526.0	527.0	530.0	533.0	533.0	533.0	533.5	534.0	32.5°	106.1	106.1	107.7	107.7
553.5	556.0	559.0	562.0	561.5	561.0	559.5	558.0	35°	91.4	90.6	92.2	94.7
577.5	580.0	582.5	585.0	585.5	586.0	584.5	583.0	37.5°	84.1	84.9	86.5	88.1
595.0	597.0	598.5	600.0	601.5	603.0	604.5	606.0	40°	80.0	80.8	82.4	84.1
610.5	611.0	612.5	614.0	616.0	618.0	620.5	623.0	42.5°	75.9	77.5	79.2	81.6
627.0	626.0	628.5	631.0	633.5	636.0	637.0	638.0	45°	73.4	75.1	77.5	80.0
644.5	644.0	646.0	648.0	649.0	650.0	650.0	650.0	47.5°	72.6	74.3	76.7	80.0
656.5	658.0	661.0	664.0	662.5	661.0	660.5	660.0	50°	71.0	73.4	75.9	79.2
665.0	667.0	669.0	671.0	670.5	670.0	669.0	668.0	52.5°	71.0	72.6	75.1	79.2
672.5	672.0	674.5	677.0	678.5	680.0	679.0	678.0	55°	68.5	71.0	73.4	77.5
681.5	678.0	681.0	684.0	686.0	688.0	688.0	688.0	57.5°	66.9	68.5	71.8	76.7
688.5	686.0	687.5	689.0	691.5	694.0	695.0	696.0	59°	66.1	67.7	71.0	75.9
689.5	689.0	690.5	692.0	693.0	694.0	695.0	696.0	60°	64.5	66.9	70.2	75.1
690.0	690.0	692.5	695.0	695.5	696.0	695.0	694.0	62.5°	62.8	65.3	68.5	73.4
694.5	694.0	696.5	699.0	700.0	701.0	699.5	698.0	65°	60.4	63.7	66.9	70.2
700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	67.5°	58.8	60.4	63.7	66.9
								70°	55.5	57.1	59.6	62.0
								72.5°	51.4	52.2	53.9	56.3
								75°	45.7	46.5	47.3	49.8
								77.5°	40.0	40.0	40.8	44.1
								80°	33.5	33.5	34.3	35.9
								82.5°	25.3	25.3	26.9	29.4
								85°	18.0	17.1	19.6	21.2
								87.5°	10.6	9.8	10.6	10.6
								90°	7.8	9.4	9.6	10.6
								92.5°	6.0	6.0	6.0	6.0
								95°	7.0	7.0	7.0	7.0
								97.5°	8.0	8.0	8.5	9.0
								100°	19.0	19.0	21.0	23.0
								102.5°	38.0	39.0	40.5	42.0
								105°	61.0	61.0	63.0	65.0
								107.5°	86.0	87.0	88.5	90.0



REPORT NUMBER: P227161

CATALOG NUMBER: ISW-AF-1200-LED-E1-SLL-8030-ULG

J-ULG

CANDELA DISTRIBUTION (continued):

290°	295°	300°	305°	310°	315°	320°		270°	275°	280°	285°	290°
1601.9	1601.9	1601.9	1601.9	1601.9	1601.9	1601.9	110°	117.0	116.0	117.5	119.0	120.0
1430.5	1422.3	1428.9	1454.2	1463.2	1474.6	1512.9	112.5°	147.0	147.0	148.0	149.0	149.5
1169.4	1180.0	1169.4	1220.8	1223.2	1257.5	1271.4	115°	178.0	177.0	178.0	179.0	180.5
859.3	873.2	896.0	930.3	940.1	989.0	1030.7	117.5°	209.0	208.0	209.0	210.0	212.5
670.8	688.7	720.6	741.8	763.0	791.6	825.0	120°	243.0	243.0	244.0	245.0	247.5
595.7	614.5	642.2	669.1	699.3	721.4	749.1	122.5°	277.0	276.0	277.0	278.0	280.5
497.8	527.2	554.1	589.2	614.5	654.5	687.1	125°	310.0	310.0	310.0	310.0	312.5
380.3	421.1	448.0	490.4	528.8	563.9	607.9	127.5°	347.0	345.0	345.5	346.0	346.0
264.4	296.2	330.5	376.2	426.0	474.1	532.9	130°	380.0	379.0	380.0	381.0	381.0
182.0	199.1	225.2	272.6	324.0	393.3	457.0	132.5°	415.0	414.0	414.0	414.0	415.0
155.0	161.6	171.4	194.2	237.5	313.4	383.5	135°	451.0	450.0	448.5	447.0	447.5
137.9	142.8	149.3	160.8	183.6	235.8	313.4	137.5°	482.0	481.0	478.5	476.0	475.5
126.5	132.2	138.7	146.9	159.1	195.0	253.0	140°	511.0	509.0	506.5	504.0	503.0
111.0	115.1	120.8	129.7	138.7	167.3	223.6	142.5°	536.0	534.0	533.5	533.0	533.0
97.9	102.8	110.2	116.7	125.7	148.5	203.2	145°	560.0	558.0	559.5	561.0	561.5
91.4	96.3	102.8	108.5	115.1	133.8	188.5	147.5°	585.0	583.0	584.5	586.0	585.5
87.3	92.2	98.7	103.6	107.7	128.9	182.8	150°	610.0	606.0	604.5	603.0	601.5
84.9	90.6	96.3	99.6	107.7	131.4	168.9	152.5°	628.0	623.0	620.5	618.0	616.0
84.1	89.8	96.3	102.0	118.3	124.0	159.9	155°	641.0	638.0	637.0	636.0	633.5
84.9	89.8	97.9	114.2	115.1	117.5	150.2	157.5°	655.0	650.0	650.0	650.0	649.0
84.9	92.2	109.3	119.1	109.3	111.0	141.2	160°	666.0	660.0	660.5	661.0	662.5
85.7	95.5	113.4	111.0	106.1	103.6	131.4	162.5°	674.0	668.0	669.0	670.0	670.5
85.7	93.8	108.5	104.5	97.9	98.7	120.0	165°	682.0	678.0	679.0	680.0	678.5
83.2	93.8	104.5	94.7	89.8	93.8	110.2	167.5°	694.0	688.0	688.0	688.0	686.0
81.6	96.3	93.0	87.3	87.3	91.4	105.3	170°	701.0	696.0	695.0	694.0	691.5
80.8	98.7	88.1	84.9	84.9	90.6	102.8	172.5°	701.0	696.0	695.0	694.0	693.0
78.3	92.2	80.8	79.2	81.6	85.7	99.6	175°	699.0	694.0	695.0	696.0	695.5
73.4	76.7	74.3	74.3	77.5	82.4	97.9	177.5°	702.0	698.0	699.5	701.0	700.0
67.7	69.4	69.4	70.2	73.4	77.5	99.6	180°	700.0	700.0	700.0	700.0	700.0
62.8	62.8	64.5	65.3	67.7	73.4	95.5						
57.1	57.9	57.9	59.6	61.2	66.9	92.2						
50.6	50.6	52.2	52.2	54.7	60.4	82.4						
44.1	44.1	44.1	44.9	46.5	52.2	67.7						
36.7	36.7	36.7	37.5	38.4	43.2	51.4						
29.4	28.6	27.7	27.7	29.4	33.5	40.0						
20.4	20.4	19.6	19.6	19.6	22.0	26.9						
11.4	9.8	10.6	11.4	10.6	12.2	14.7						
9.8	10.6	10.4	10.3	10.3	10.3	12.4						
6.5	7.0	7.0	7.0	6.5	6.0	6.0						
7.5	8.0	7.5	7.0	7.0	7.0	7.0						
9.5	10.0	11.0	12.0	10.5	9.0	9.0						
24.5	26.0	27.5	29.0	25.0	21.0	16.5						
44.5	47.0	48.5	50.0	45.0	40.0	33.5						
67.5	70.0	71.0	72.0	67.5	63.0	55.5						
92.0	94.0	94.5	95.0	91.5	88.0	80.5						



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CANDELA DISTRIBUTION (continued):

295°	300°	305°	310°	315°	320°		325°	330°	335°	340°	345°	350°
121.0	120.5	120.0	117.0	114.0	108.0	0°	1601.9	1601.9	1601.9	1601.9	1601.9	1601.9
150.0	149.0	148.0	145.5	143.0	138.5	2.5°	1508.0	1529.2	1562.7	1569.2	1596.2	1614.9
182.0	180.5	179.0	176.5	174.0	171.0	5°	1277.9	1328.5	1346.5	1381.5	1442.7	1473.8
215.0	213.0	211.0	208.0	205.0	203.5	7.5°	1054.3	1092.7	1135.9	1192.2	1237.1	1290.2
250.0	248.0	246.0	244.5	243.0	240.0	10°	867.4	922.1	978.4	1024.1	1087.0	1150.6
283.0	281.0	279.0	278.0	277.0	274.0	12.5°	770.3	800.5	856.0	920.5	998.8	1069.8
315.0	314.0	313.0	311.5	310.0	307.5	15°	719.7	755.6	815.2	883.8	967.0	1055.1
346.0	345.5	345.0	342.5	340.0	339.5	17.5°	656.9	714.0	781.8	879.7	987.4	1109.8
381.0	379.0	377.0	374.5	372.0	371.0	20°	594.9	664.3	753.2	882.1	1031.5	1190.6
416.0	413.5	411.0	408.0	405.0	404.5	22.5°	540.2	622.6	735.2	896.8	1087.8	1299.9
448.0	445.5	443.0	440.0	437.0	436.0	25°	475.7	585.9	721.4	927.0	1174.3	1446.8
475.0	474.0	473.0	470.5	468.0	466.0	27.5°	424.3	550.8	701.0	953.1	1253.4	1588.0
502.0	501.0	500.0	498.5	497.0	494.0	30°	367.2	510.0	672.4	962.1	1349.7	1703.9
533.0	530.0	527.0	526.0	525.0	523.0	32.5°	321.5	471.7	639.8	953.9	1393.0	1784.7
562.0	559.0	556.0	553.5	551.0	550.5	35°	299.5	443.9	612.0	925.4	1428.9	1872.0
585.0	582.5	580.0	577.5	575.0	574.5	37.5°	284.8	413.7	585.1	878.1	1469.7	1958.5
600.0	598.5	597.0	595.0	593.0	593.0	40°	266.0	390.1	563.1	843.8	1501.5	2030.3
614.0	612.5	611.0	610.5	610.0	610.0	42.5°	248.9	368.8	545.9	813.6	1509.7	2094.8
631.0	628.5	626.0	627.0	628.0	629.0	45°	234.2	355.8	532.9	815.2	1515.4	2184.5
648.0	646.0	644.0	644.5	645.0	645.5	47.5°	222.8	343.6	528.0	843.0	1575.8	2309.4
664.0	661.0	658.0	656.5	655.0	655.0	50°	212.2	332.9	519.8	896.8	1672.9	2478.3
671.0	669.0	667.0	665.0	663.0	662.0	52.5°	199.9	318.3	509.2	952.3	1779.0	2704.3
677.0	674.5	672.0	672.5	673.0	673.0	55°	183.6	298.7	497.8	998.8	1923.4	2979.3
684.0	681.0	678.0	681.5	685.0	686.5	57.5°	158.3	275.8	490.4	1022.5	2012.3	3137.7
689.0	687.5	686.0	688.5	691.0	692.0	59°	145.3	253.8	486.4	1011.1	2036.0	3164.6
692.0	690.5	689.0	689.5	690.0	690.0	60°	137.9	240.7	479.8	997.2	2042.5	3147.4
695.0	692.5	690.0	690.0	690.0	690.5	62.5°	128.1	209.7	452.9	927.8	1951.1	2940.2
699.0	696.5	694.0	694.5	695.0	696.0	65°	130.6	198.3	391.7	789.9	1741.4	2535.4
700.0	700.0	700.0	700.0	700.0	700.0	67.5°	133.8	193.4	338.7	638.1	1388.1	2098.0
						70°	131.4	191.0	307.6	507.6	1039.6	1570.9
						72.5°	128.1	180.3	266.8	408.0	659.4	1100.0
						75°	113.4	151.8	209.7	279.9	416.2	801.3
						77.5°	88.9	116.7	148.5	173.8	211.4	565.5
						80°	65.3	84.9	97.1	104.5	117.5	386.0
						82.5°	46.5	57.1	62.0	66.1	78.3	288.9
						85°	35.1	40.0	43.2	43.2	53.0	204.0
						87.5°	19.6	20.4	20.4	22.0	26.1	55.5
						90°	13.7	13.7	12.9	13.2	11.1	9.3
						92.5°	6.0	6.0	6.0	5.5	5.0	4.5
						95°	7.0	7.0	7.0	6.5	6.0	5.5
						97.5°	9.0	8.5	8.0	8.0	8.0	7.5
						100°	12.0	11.0	10.0	9.5	9.0	8.5
						102.5°	27.0	22.5	18.0	15.5	13.0	12.0
						105°	48.0	42.0	36.0	31.5	27.0	24.5
						107.5°	73.0	65.5	58.0	53.5	49.0	45.5



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CANDELA DISTRIBUTION (continued):

355°	359°	360°		325°	330°	335°	340°	345°	350°	355°
1601.9	1601.9	1601.9	110°	102.0	94.5	87.0	80.5	74.0	71.0	68.0
1636.1	1648.4	1658.2	112.5°	134.0	127.5	121.0	113.5	106.0	102.5	99.0
1521.1	1551.3	1557.0	115°	168.0	163.5	159.0	153.0	147.0	143.0	139.0
1348.9	1397.9	1415.0	117.5°	202.0	199.5	197.0	193.0	189.0	186.5	184.0
1222.4	1275.5	1293.4	120°	237.0	235.0	233.0	229.5	226.0	224.5	223.0
1153.1	1215.1	1234.7	122.5°	271.0	269.0	267.0	264.0	261.0	260.5	260.0
1154.7	1228.9	1257.5	125°	305.0	302.0	299.0	297.5	296.0	295.0	294.0
1229.8	1314.6	1349.7	127.5°	339.0	336.0	333.0	331.0	329.0	329.0	329.0
1358.7	1481.9	1508.0	130°	370.0	368.0	366.0	364.0	362.0	361.5	361.0
1533.3	1654.1	1693.3	132.5°	404.0	402.5	401.0	397.0	393.0	393.5	394.0
1697.4	1857.3	1887.5	135°	435.0	433.5	432.0	429.0	426.0	426.0	426.0
1858.9	2017.2	2044.2	137.5°	464.0	462.0	460.0	459.5	459.0	458.0	457.0
1983.8	2149.4	2172.3	140°	491.0	490.0	489.0	488.0	487.0	486.0	485.0
2103.7	2290.6	2315.9	142.5°	521.0	519.5	518.0	517.5	517.0	516.0	515.0
2237.6	2444.0	2473.4	145°	550.0	548.5	547.0	545.5	544.0	545.0	546.0
2358.3	2595.0	2613.8	147.5°	574.0	574.0	574.0	572.5	571.0	571.5	572.0
2492.2	2718.2	2723.1	150°	593.0	593.0	593.0	593.0	593.0	592.5	592.0
2601.5	2809.6	2811.2	152.5°	610.0	609.5	609.0	608.5	608.0	608.0	608.0
2707.6	2895.3	2896.1	155°	630.0	628.5	627.0	626.0	625.0	625.0	625.0
2818.6	2989.1	2976.9	157.5°	646.0	645.0	644.0	643.5	643.0	643.0	643.0
2994.0	3100.1	3112.4	160°	655.0	655.5	656.0	657.5	659.0	659.5	660.0
3260.9	3355.5	3369.4	162.5°	661.0	663.0	665.0	667.0	669.0	669.0	669.0
3571.0	3702.3	3683.6	165°	673.0	674.5	676.0	676.0	676.0	677.0	678.0
3702.3	3852.5	3868.0	167.5°	688.0	687.0	686.0	685.0	684.0	685.5	687.0
3680.3	3885.1	3911.3	170°	693.0	692.5	692.0	692.0	692.0	693.5	695.0
3645.2	3875.3	3907.2	172.5°	690.0	691.5	693.0	694.0	695.0	696.0	697.0
3446.1	3773.3	3823.1	175°	691.0	693.0	695.0	696.0	697.0	697.5	698.0
3111.5	3562.0	3632.2	177.5°	697.0	698.0	699.0	699.5	700.0	702.5	705.0
2681.5	3246.2	3302.5	180°	700.0	700.0	700.0	700.0	700.0	700.0	700.0
2092.3	2638.2	2686.4								
1390.5	1811.6	1894.8								
883.8	1168.6	1153.1								
652.0	759.7	760.5								
473.3	521.4	515.7								
366.4	318.3	317.4								
128.1	112.6	110.2								
55.5	46.5	47.3								
7.4	7.4	8.3								
4.0	4.0	4.0								
5.0	5.0	5.0								
7.0	7.0	7.0								
8.0	8.0	8.0								
11.0	11.0	11.0								
22.0	21.2	21.0								
42.0	41.2	41.0								



359°	360°
66.4	66.0
99.0	99.0
139.8	140.0
184.0	184.0
224.6	225.0
262.4	263.0
297.2	298.0
329.8	330.0
362.6	363.0
395.6	396.0
428.4	429.0
459.4	460.0
487.4	488.0
517.4	518.0
549.2	550.0
574.4	575.0
594.4	595.0
610.4	611.0
628.2	629.0
645.4	646.0
662.4	663.0
672.2	673.0
680.4	681.0
689.4	690.0
697.4	698.0
698.6	699.0
699.6	700.0
706.6	707.0
700.0	700.0

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