

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: P227655

Luminaire Tested: **ISC-AF-1200-LED-E1-T2**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P227655
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29758)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: ISC-AF-1200-LED-E1-T2
Description: IMPACT ELITE LED CYLINDER LUMINAIRE
LIGHT SQUARE WITH ACCULED OPTICS-TYPE II
Light Source: (16) 4000K CCT, 70 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6591.9 lumens
Efficiency: N/A
Efficacy: 99.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G2

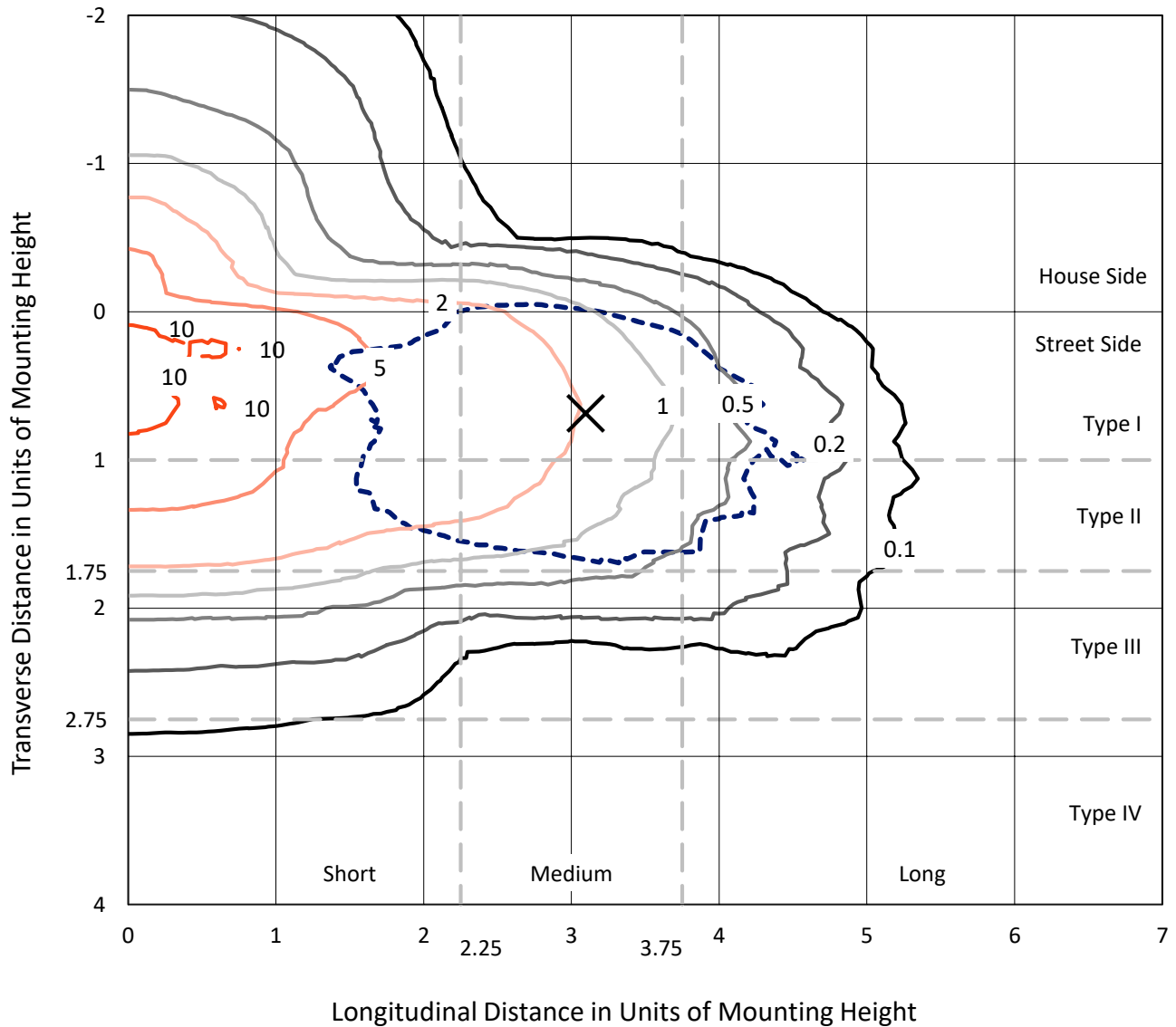
Input Watts (W): 66
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

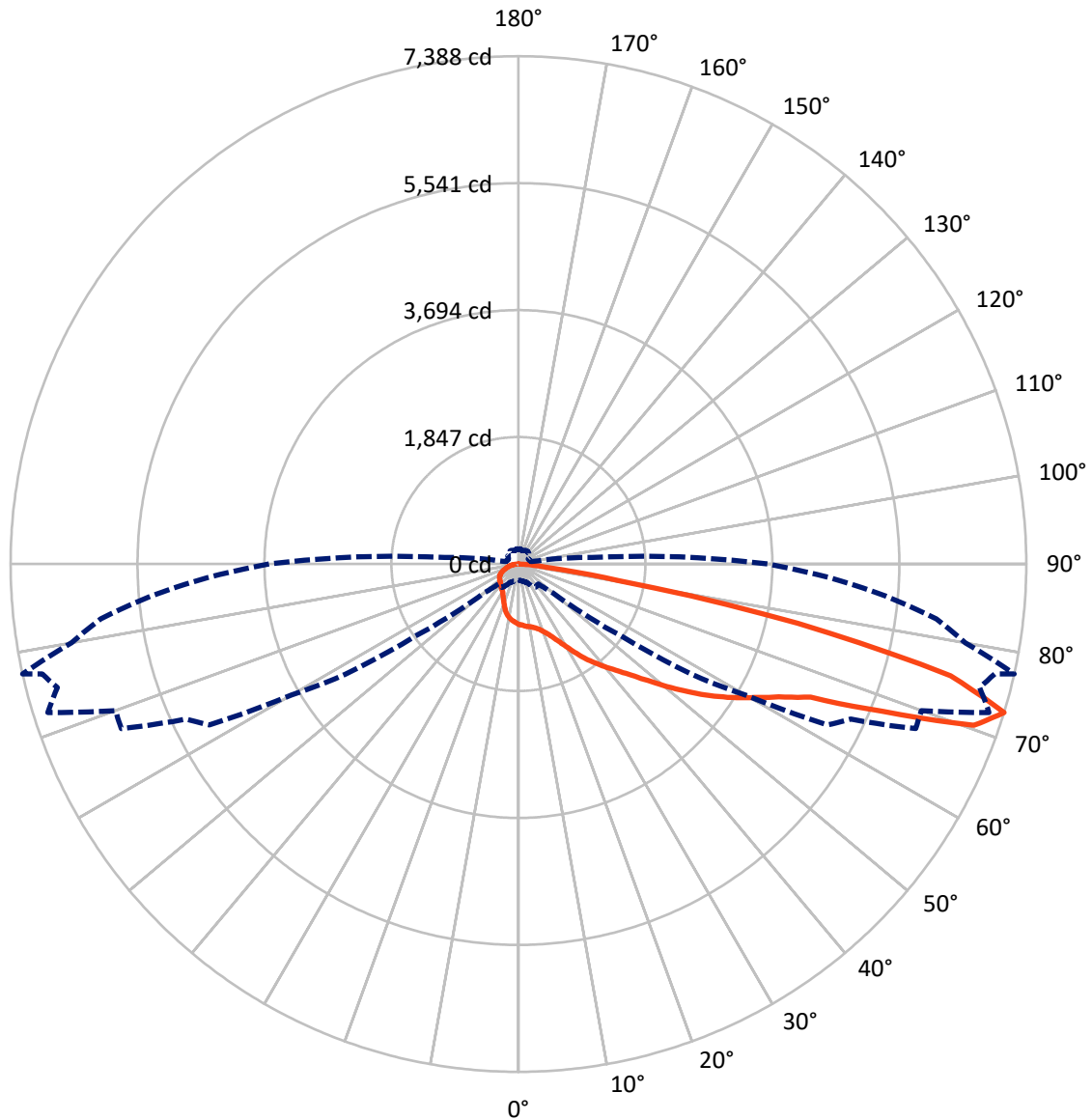
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.7 fc
 Type II - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1092.3	0.0	1092.3
	% Fixture	16.6	0.0	16.6
Street Side	Lumens	5499.6	0.0	5499.6
	% Fixture	83.4	0.0	83.4
Total	Lumens	6591.9	0.0	6591.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.7	1.2
10°-20°	250.7	3.8
20°-30°	445.0	6.8
30°-40°	705.1	10.7
40°-50°	1057.7	16.0
50°-60°	1370.6	20.8
60°-70°	1557.3	23.6
70°-80°	1033.4	15.7
80°-90°	90.4	1.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	6591.9	100.0
0°-180°	6591.9	100.0



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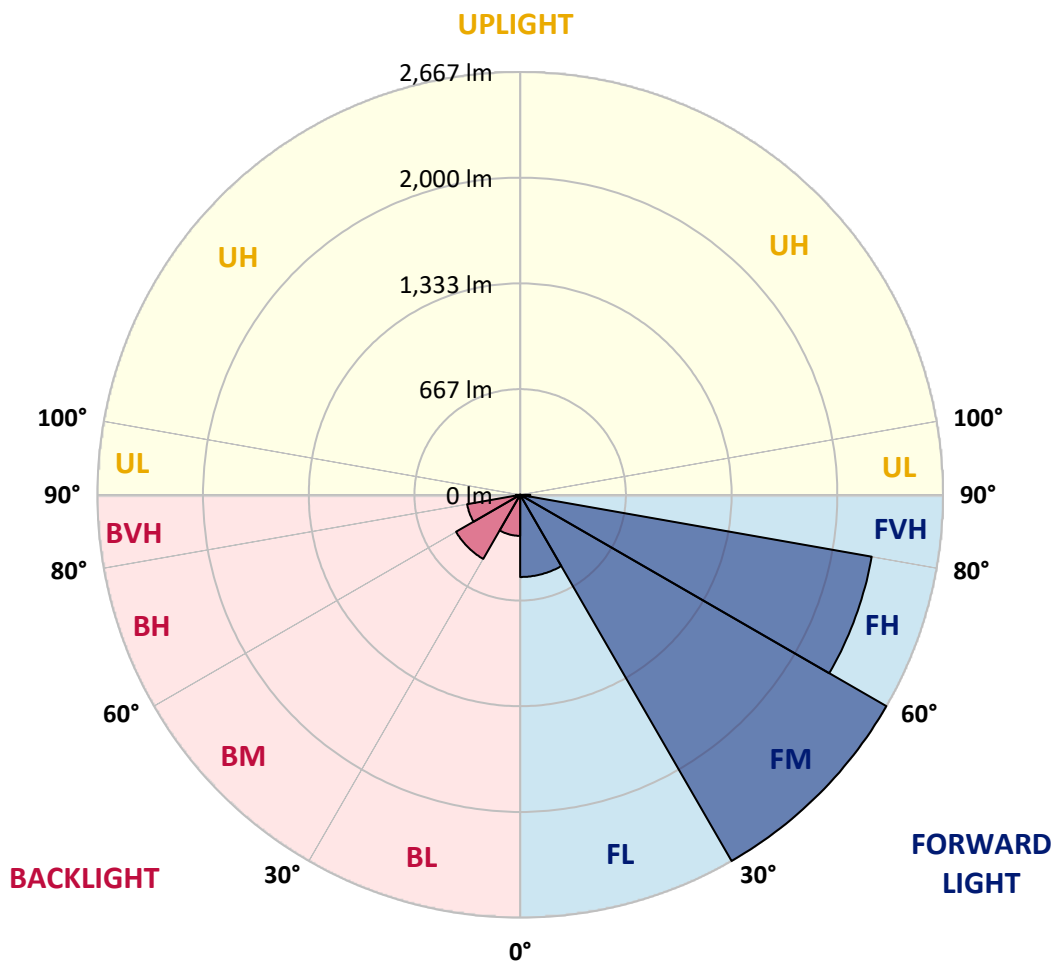
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	518.6	7.9			
FM (30°-60°)	2666.8	40.5			
FH (60°-80°)	2251.1	34.1			G2/5000
FVH (80°-90°)	63.2	1.0			G1/100
BL (0°-30°)	258.8	3.9	B1/500		
BM (30°-60°)	466.6	7.1	B1/1000		
BH (60°-80°)	339.7	5.2	B1/500		G1/500
BVH (80°-90°)	27.2	0.4			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	37.5°	40°	42.5°	45°	47.5°	50°
0°	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1
2.5°	953.5	949.0	946.8	942.3	937.9	935.7	929.0	924.5	931.3	929.0	929.0
5°	1024.6	1020.2	1013.4	1006.8	997.9	991.2	984.6	977.9	982.3	977.9	973.4
7.5°	1082.4	1078.0	1069.1	1062.3	1053.5	1044.6	1035.7	1033.5	1029.1	1022.3	1020.2
10°	1115.7	1111.2	1106.8	1102.4	1089.0	1082.4	1071.2	1064.6	1066.8	1057.9	1057.9
12.5°	1146.8	1142.4	1140.2	1140.2	1129.0	1122.4	1118.0	1111.2	1115.7	1102.4	1097.9
15°	1175.8	1171.3	1164.6	1171.3	1169.0	1166.9	1164.6	1162.4	1169.0	1155.7	1158.0
17.5°	1222.4	1220.2	1206.9	1198.0	1200.2	1206.9	1211.3	1209.0	1209.0	1202.4	1204.6
20°	1295.8	1295.8	1278.0	1262.4	1238.0	1238.0	1240.2	1238.0	1242.4	1246.9	1253.5
22.5°	1351.3	1346.9	1340.2	1326.9	1300.2	1278.0	1278.0	1269.1	1275.7	1278.0	1291.3
25°	1422.4	1418.0	1402.5	1402.5	1375.8	1346.9	1342.4	1329.1	1344.7	1315.7	1338.0
27.5°	1509.2	1504.7	1484.7	1475.8	1462.4	1426.9	1418.0	1420.3	1435.8	1393.6	1415.8
30°	1618.0	1613.6	1589.2	1564.7	1542.5	1504.7	1500.3	1498.0	1533.6	1484.7	1513.6
32.5°	1755.8	1755.8	1729.2	1695.8	1651.3	1600.2	1582.5	1584.7	1633.6	1580.3	1629.2
35°	1964.8	1938.1	1889.2	1838.0	1791.4	1731.3	1706.9	1702.5	1746.9	1693.6	1749.1
37.5°	2098.1	2080.3	2035.9	1998.1	1947.0	1889.2	1871.4	1878.0	1915.9	1838.0	1918.0
40°	2218.2	2215.9	2187.0	2162.5	2111.5	2053.7	2075.9	2164.8	2264.8	2113.6	2115.9
42.5°	2298.2	2302.6	2300.3	2302.6	2273.7	2213.7	2251.4	2375.9	2547.0	2458.2	2375.9
45°	2311.5	2327.0	2333.7	2378.2	2407.0	2371.5	2391.5	2522.6	2864.9	3002.7	2631.5
47.5°	2344.8	2360.4	2347.1	2400.4	2533.7	2531.5	2611.5	2660.4	2707.0	2729.3	3009.3
50°	2389.2	2418.2	2404.9	2449.3	2558.2	2620.4	2689.3	2751.5	2713.8	2573.7	2649.3
52.5°	2391.5	2424.8	2498.1	2542.6	2649.3	2635.9	2682.6	2649.3	2707.0	2562.6	2635.9
55°	2195.9	2202.5	2415.9	2640.4	2827.1	2789.3	2760.4	2684.8	2758.2	2578.1	2671.5
57.5°	1886.9	1909.1	2131.4	2509.3	2909.4	2942.6	2933.8	2927.1	2984.9	2744.9	2847.1
60°	1546.9	1573.6	1784.7	2229.2	2738.2	2824.9	2944.9	3018.2	3167.2	3071.6	3240.5
62.5°	964.5	984.6	1217.9	1773.6	2415.9	2587.0	2762.7	2849.3	3064.9	3109.4	3396.1
65°	460.0	466.8	557.8	964.5	1755.8	2078.1	2338.2	2522.6	2787.1	2987.1	3373.9
67.5°	357.8	360.1	393.4	513.4	900.1	1115.7	1411.4	1655.9	1938.1	2484.8	2964.9
70°	286.7	286.7	313.4	377.9	557.8	586.8	662.4	744.6	864.6	1304.7	1693.6
72.5°	240.1	240.1	257.8	297.8	413.4	420.0	415.6	409.0	409.0	515.7	657.9
75°	202.2	200.0	211.1	237.8	306.7	315.6	311.2	295.6	277.8	277.8	313.4
77.5°	164.5	164.5	173.4	186.7	222.3	226.7	226.7	213.4	197.8	200.0	215.6
80°	128.9	128.9	135.5	144.4	155.6	153.3	153.3	140.0	128.9	126.6	135.5
82.5°	93.4	95.5	111.1	104.4	100.0	93.4	93.4	91.1	82.2	75.6	80.0
85°	28.8	31.1	53.3	62.2	51.1	42.2	40.0	33.3	35.6	28.8	33.3
87.5°	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	2.3	0.0	2.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	52.5°	55°	57.5°	60°	62.5°	65°	67.5°	70°	72.5°	75°	77°
0°	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1
2.5°	917.9	922.4	913.5	913.5	902.3	909.0	897.9	900.1	889.0	893.4	893.4
5°	962.4	964.5	953.5	949.0	937.9	937.9	926.8	926.8	911.2	915.7	911.2
7.5°	1004.6	1004.6	993.5	984.6	973.4	969.0	955.7	949.0	935.7	933.4	926.8
10°	1040.1	1040.1	1024.6	1015.7	1002.4	995.7	977.9	971.3	955.7	944.6	937.9
12.5°	1084.6	1080.1	1062.3	1053.5	1031.2	1029.1	1002.4	997.9	975.7	969.0	957.9
15°	1137.9	1142.4	1113.5	1111.2	1080.1	1078.0	1042.4	1040.1	1006.8	1004.6	989.0
17.5°	1195.7	1204.6	1180.2	1177.9	1140.2	1140.2	1097.9	1095.7	1051.3	1049.0	1029.1
20°	1246.9	1257.9	1242.4	1246.9	1213.5	1215.8	1169.0	1169.0	1106.8	1102.4	1084.6
22.5°	1293.5	1315.7	1302.4	1326.9	1293.5	1309.1	1246.9	1257.9	1184.6	1175.8	1149.1
25°	1340.2	1369.1	1364.6	1404.6	1380.2	1406.9	1342.4	1364.6	1269.1	1275.7	1240.2
27.5°	1386.9	1424.7	1420.3	1478.0	1469.2	1522.5	1466.9	1491.4	1386.9	1393.6	1353.6
30°	1464.7	1506.9	1491.4	1551.3	1551.3	1638.1	1595.8	1633.6	1518.1	1531.4	1484.7
32.5°	1569.1	1618.0	1571.4	1649.1	1644.7	1758.0	1724.7	1789.1	1675.8	1693.6	1635.8
35°	1682.4	1760.3	1684.7	1771.3	1758.0	1875.9	1853.6	1958.0	1838.0	1858.1	1800.3
37.5°	1831.4	1924.8	1824.7	1900.3	1840.3	1975.8	1962.5	2104.7	1982.5	2033.6	1964.8
40°	2006.9	2080.3	1955.9	2020.3	1920.3	2060.3	2038.1	2233.7	2120.4	2202.5	2140.3
42.5°	2169.3	2220.3	2055.8	2135.9	2015.8	2158.1	2118.1	2353.7	2255.9	2382.6	2313.7
45°	2315.9	2373.7	2155.9	2244.8	2111.5	2267.0	2198.1	2469.3	2402.6	2593.7	2524.8
47.5°	2524.8	2440.4	2247.0	2362.6	2213.7	2384.8	2293.7	2604.8	2580.4	2851.6	2771.6
50°	2455.9	2511.4	2322.6	2442.6	2307.1	2515.9	2415.9	2767.1	2773.7	3131.6	3084.9
52.5°	2462.5	2555.9	2380.4	2547.0	2415.9	2698.2	2593.7	2962.7	2993.8	3402.7	3338.3
55°	2502.6	2640.4	2467.1	2691.5	2569.2	2900.5	2827.1	3173.8	3227.2	3658.4	3620.5
57.5°	2602.6	2793.8	2616.0	2909.4	2782.6	3131.6	3064.9	3391.6	3464.9	3913.9	3902.9
60°	2987.1	3213.8	2902.6	3227.2	3058.2	3393.8	3304.9	3620.5	3693.9	4158.4	4187.3
62.5°	3416.0	3809.5	3625.0	3962.8	3516.1	3856.1	3593.8	3902.9	3907.3	4420.7	4511.8
65°	3527.2	4131.7	4289.5	4918.6	4685.1	5034.1	4334.0	4540.7	4274.0	4898.5	5029.6
67.5°	3485.0	4225.1	4662.9	5371.9	5636.5	6245.4	6127.6	6056.5	5438.6	5887.6	6045.3
70°	2558.2	3342.7	4414.0	5134.1	5896.5	6296.5	6930.0	6994.4	6967.7	6905.5	7010.0
72.5°	1164.6	1827.0	2987.1	3809.5	5067.4	5336.3	6254.3	6236.5	7178.9	6945.5	7110.0
75°	457.9	704.5	1422.4	2127.0	3504.9	3836.2	4876.3	4618.5	5794.2	5451.9	5803.1
77.5°	251.1	315.6	533.4	913.5	1913.6	2089.2	2984.9	2553.7	3593.8	3000.4	3118.3
80°	151.1	188.9	244.5	346.7	813.5	860.1	1273.6	1026.8	1469.2	1115.7	1082.4
82.5°	82.2	102.2	122.2	171.1	302.3	335.6	440.1	395.6	471.2	402.3	393.4
85°	33.3	44.5	46.6	68.9	100.0	115.6	140.0	151.1	184.4	168.9	164.5
87.5°	0.0	2.3	0.0	4.4	0.0	4.4	0.0	6.6	6.6	11.2	13.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	77.5°	80°	82.5°	85°	87.5°	90°	95°	100°	102.5°	105°	107.5°
0°	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1
2.5°	886.8	893.4	884.5	884.5	873.5	880.1	873.5	866.8	855.7	857.9	842.4
5°	902.3	906.8	895.7	891.3	884.5	882.4	869.0	855.7	840.1	840.1	822.4
7.5°	917.9	917.9	902.3	902.3	886.8	882.4	862.3	840.1	818.0	815.7	789.0
10°	926.8	924.5	904.6	904.6	882.4	880.1	855.7	822.4	791.3	782.4	744.6
12.5°	944.6	942.3	917.9	913.5	884.5	884.5	849.0	804.6	760.2	744.6	691.2
15°	966.8	969.0	940.2	933.4	900.1	897.9	849.0	782.4	722.3	697.9	633.4
17.5°	1002.4	1004.6	964.5	957.9	917.9	911.2	851.2	755.7	671.3	644.6	586.8
20°	1049.0	1042.4	989.0	986.8	933.4	926.8	849.0	715.7	620.1	593.4	542.3
22.5°	1106.8	1100.2	1031.2	1024.6	962.4	951.2	846.8	673.4	573.5	544.5	511.2
25°	1186.8	1177.9	1093.5	1084.6	1006.8	989.0	844.5	629.0	533.4	511.2	491.2
27.5°	1286.9	1269.1	1166.9	1158.0	1053.5	1031.2	835.6	577.9	493.4	477.8	468.9
30°	1406.9	1391.3	1260.2	1246.9	1115.7	1086.8	826.7	531.2	464.5	457.9	451.2
32.5°	1549.2	1533.6	1373.5	1358.0	1195.7	1153.5	811.2	493.4	446.7	446.7	437.8
35°	1698.0	1684.7	1495.8	1484.7	1284.6	1229.1	791.3	460.0	431.2	431.2	422.3
37.5°	1831.4	1842.5	1629.2	1620.3	1373.5	1304.7	769.1	437.8	417.9	413.4	404.5
40°	1975.8	2002.5	1753.6	1760.3	1466.9	1384.7	742.4	420.0	402.3	397.8	395.6
42.5°	2122.5	2173.7	1884.7	1909.1	1560.2	1466.9	722.3	409.0	395.6	386.7	384.5
45°	2304.8	2378.2	2047.0	2093.7	1669.1	1567.0	715.7	395.6	375.6	364.5	357.8
47.5°	2531.5	2629.3	2247.0	2300.3	1813.6	1686.9	729.0	391.2	362.2	348.9	335.6
50°	2800.4	2893.7	2484.8	2507.0	1975.8	1818.1	757.9	397.8	357.8	337.8	317.8
52.5°	3084.9	3156.0	2736.0	2711.5	2144.8	1947.0	791.3	400.1	346.7	326.7	302.3
55°	3378.3	3418.3	2969.3	2904.9	2298.2	2075.9	835.6	397.8	337.8	315.6	284.5
57.5°	3665.0	3678.3	3176.1	3113.8	2449.3	2229.2	891.3	391.2	324.5	302.3	268.9
60°	3945.0	3967.3	3405.0	3347.2	2613.7	2427.1	971.3	380.0	306.7	291.1	255.6
62.5°	4251.8	4325.1	3678.3	3687.2	2840.4	2736.0	1122.4	366.7	289.0	271.2	235.6
65°	4669.6	4949.6	4129.6	4338.4	3276.1	3318.2	1411.4	329.0	264.5	242.2	217.8
67.5°	5716.5	6023.1	5225.2	5309.7	4296.2	4045.1	1593.6	280.1	233.3	217.8	202.2
70°	7027.8	6807.7	6240.9	5729.8	4891.9	4158.4	1402.5	235.6	206.7	197.8	188.9
72.5°	7387.8	6598.7	6132.1	5365.3	4522.9	3627.2	1073.5	202.2	184.4	180.0	173.4
75°	6492.1	5349.7	5376.4	4262.8	3749.4	2764.8	733.5	173.4	160.0	157.8	155.6
77.5°	4151.7	2749.3	3347.2	2107.0	2164.8	1280.2	357.8	144.4	137.8	137.8	133.4
80°	1475.8	915.7	1035.7	664.5	604.6	406.7	193.3	115.6	111.1	113.3	111.1
82.5°	442.3	351.2	344.5	268.9	208.9	171.1	106.7	88.9	84.5	86.6	82.2
85°	177.8	137.8	115.6	88.9	73.3	66.7	57.8	60.0	53.3	57.8	51.1
87.5°	11.2	8.9	6.6	8.9	0.0	4.4	11.2	8.9	2.3	8.9	6.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CATALOG NUMBER: ISC-AF-1200-LED-E1-T2

CANDELA DISTRIBUTION (continued):

	110°	112.5°	115°	117.5°	120°	122.5°	125°	127.5°	130°	135°	145°
0°	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1	880.1
2.5°	853.4	837.9	844.5	837.9	842.4	829.0	833.5	822.4	822.4	820.1	809.1
5°	824.6	809.1	806.8	791.3	793.5	775.7	773.5	753.4	753.4	735.7	702.4
7.5°	784.6	760.2	757.9	726.8	724.6	700.1	691.2	669.0	666.8	646.8	626.8
10°	733.5	695.7	689.0	649.0	651.2	624.5	622.4	606.7	606.7	597.9	597.9
12.5°	675.7	633.4	629.0	597.9	600.1	582.3	584.5	575.6	580.1	584.5	600.1
15°	622.4	589.0	584.5	564.6	566.7	562.3	569.0	569.0	575.6	586.8	613.5
17.5°	577.9	549.0	551.2	542.3	551.2	549.0	562.3	560.1	573.5	586.8	620.1
20°	537.9	522.3	529.0	526.7	537.9	537.9	549.0	551.2	562.3	580.1	617.9
22.5°	511.2	506.8	513.4	513.4	522.3	524.6	535.6	542.3	549.0	566.7	600.1
25°	495.6	493.4	500.1	502.3	508.9	511.2	522.3	522.3	533.4	544.5	562.3
27.5°	473.4	468.9	477.8	477.8	486.7	484.5	497.9	493.4	504.5	508.9	513.4
30°	457.9	451.2	457.9	455.6	462.3	455.6	462.3	455.6	462.3	462.3	455.6
32.5°	442.3	435.6	437.8	428.9	435.6	426.8	428.9	420.0	424.5	420.0	422.3
35°	426.8	417.9	417.9	406.7	406.7	395.6	400.1	391.2	400.1	406.7	404.5
37.5°	404.5	397.8	397.8	388.9	393.4	388.9	397.8	393.4	395.6	386.7	371.1
40°	391.2	395.6	393.4	400.1	395.6	388.9	382.3	369.0	366.7	362.2	353.4
42.5°	371.1	375.6	364.5	373.4	366.7	369.0	364.5	357.8	353.4	348.9	340.0
45°	342.3	342.3	333.4	346.7	340.0	353.4	348.9	348.9	344.5	337.8	331.1
47.5°	317.8	320.1	311.2	322.2	317.8	335.6	333.4	340.0	340.0	335.6	317.8
50°	302.3	297.8	291.1	302.3	300.0	315.6	317.8	331.1	329.0	331.1	315.6
52.5°	289.0	280.1	273.3	280.1	280.1	293.4	297.8	313.4	315.6	320.1	311.2
55°	273.3	262.3	257.8	262.3	262.3	275.6	282.2	293.4	300.0	313.4	308.9
57.5°	260.0	244.5	240.1	244.5	246.7	260.0	266.7	277.8	286.7	304.5	302.3
60°	244.5	231.2	226.7	233.3	235.6	248.9	255.6	266.7	273.3	293.4	293.4
62.5°	226.7	215.6	215.6	217.8	222.3	235.6	240.1	255.6	257.8	282.2	284.5
65°	211.1	204.5	204.5	206.7	211.1	222.3	224.4	240.1	242.2	266.7	273.3
67.5°	197.8	193.3	193.3	195.6	197.8	206.7	208.9	224.4	228.9	251.1	262.3
70°	184.4	180.0	177.8	177.8	184.4	191.2	195.6	211.1	213.4	233.3	246.7
72.5°	168.9	164.5	164.5	162.2	168.9	173.4	182.3	191.2	195.6	215.6	224.4
75°	153.3	148.9	148.9	146.7	151.1	160.0	162.2	171.1	173.4	191.2	200.0
77.5°	133.4	128.9	128.9	128.9	133.4	135.5	137.8	146.7	151.1	166.7	175.5
80°	111.1	106.7	108.9	106.7	113.3	104.4	111.1	120.0	124.5	133.4	128.9
82.5°	84.5	77.7	80.0	80.0	82.2	75.6	80.0	84.5	88.9	95.5	93.4
85°	53.3	46.6	51.1	46.6	51.1	44.5	48.9	48.9	53.3	48.9	46.6
87.5°	11.2	4.4	11.2	4.4	13.3	0.0	6.6	0.0	4.4	2.3	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



REPORT NUMBER: P227655

CATALOG NUMBER: ISC-AF-1200-LED-E1-T2

CANDELA DISTRIBUTION (continued):

	155°	165°	175°	180°
0°	880.1	880.1	880.1	880.1
2.5°	797.9	789.0	784.6	782.4
5°	684.6	669.0	664.5	660.1
7.5°	615.6	611.2	611.2	609.0
10°	602.3	609.0	611.2	611.2
12.5°	617.9	629.0	637.9	637.9
15°	637.9	657.9	669.0	669.0
17.5°	653.5	680.1	691.2	693.5
20°	655.6	682.3	697.9	700.1
22.5°	635.7	653.5	664.5	664.5
25°	584.5	593.4	600.1	600.1
27.5°	520.1	517.8	515.7	524.6
30°	453.4	449.0	440.1	449.0
32.5°	428.9	413.4	391.2	397.8
35°	391.2	386.7	375.6	377.9
37.5°	377.9	415.6	413.4	415.6
40°	362.2	409.0	406.7	411.1
42.5°	348.9	375.6	348.9	351.2
45°	324.5	335.6	313.4	313.4
47.5°	313.4	308.9	300.0	297.8
50°	304.5	304.5	300.0	295.6
52.5°	297.8	293.4	308.9	306.7
55°	289.0	284.5	295.6	295.6
57.5°	282.2	271.2	289.0	289.0
60°	275.6	264.5	282.2	282.2
62.5°	271.2	257.8	280.1	277.8
65°	264.5	251.1	280.1	275.6
67.5°	255.6	237.8	275.6	268.9
70°	237.8	222.3	260.0	242.2
72.5°	220.0	202.2	222.3	206.7
75°	193.3	177.8	180.0	177.8
77.5°	162.2	144.4	140.0	142.3
80°	122.2	111.1	106.7	106.7
82.5°	88.9	75.6	77.7	64.4
85°	40.0	28.8	22.2	22.2
87.5°	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)