

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: P226445

Luminaire Tested: **IST-AF-1200-LED-E1-T3-ULG**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P226445  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35938)-DOWNLIGHT AND  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: IST-AF-1200-LED-E1-T3-ULG  
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE WITH UPLIGHT  
LIGHT SQUARE WITH ACCULED OPTICS-TYPE III, WITH UPLIGHT GLOW  
Light Source: (16) 4000K CCT, 70 CRI LEDs and (1) UPLIGHT LED  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

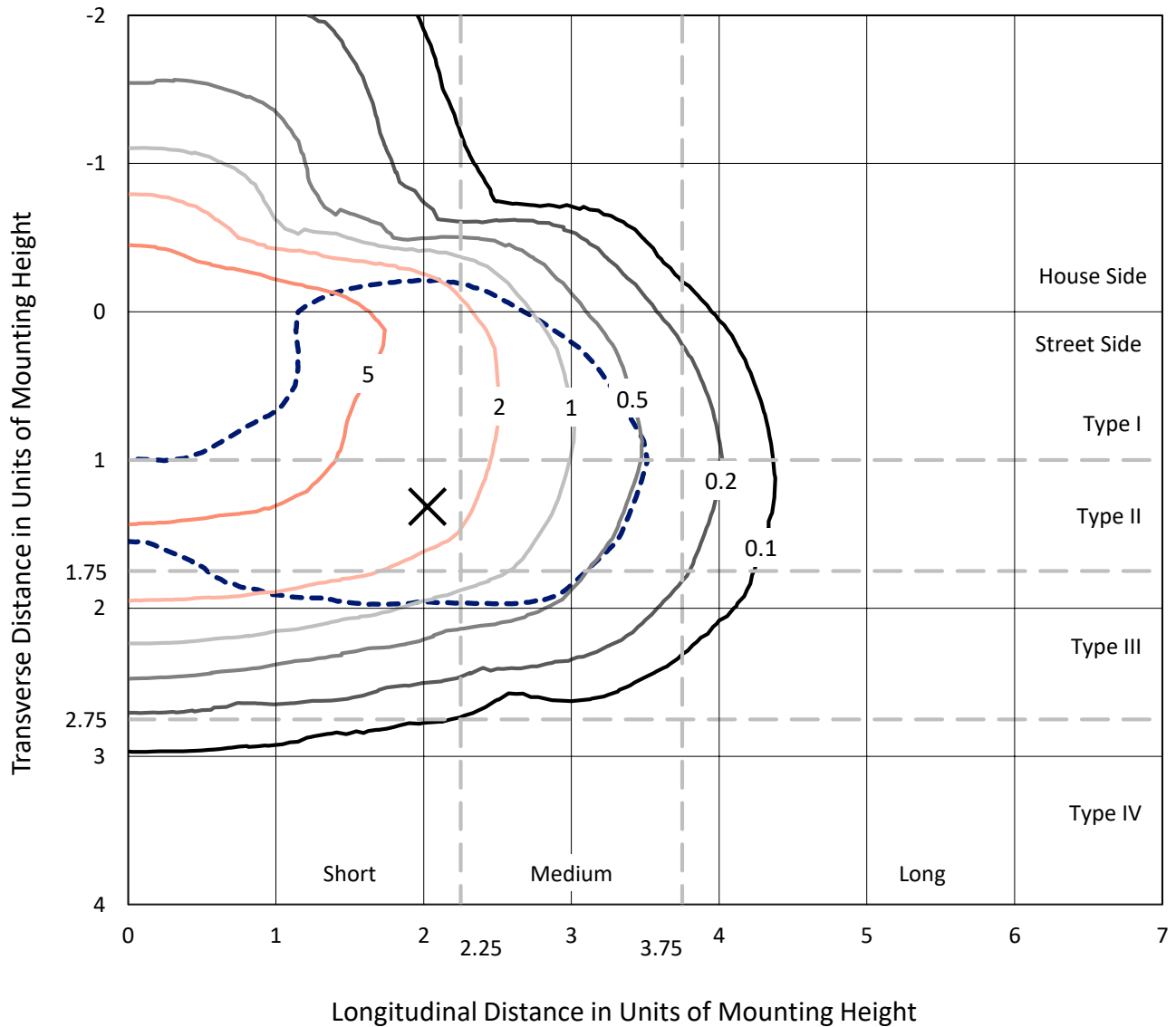
Lumens per Lamp: N/A  
Luminaire Lumens: 8842.1 lumens  
Efficiency: N/A  
Efficacy: 106.9 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.54')  
IES Classification: Type III - Short - Non-Cutoff  
BUG Rating: B1 - U5 - G2  
  
Input Watts (W): 82.7  
Input Voltage (V): 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

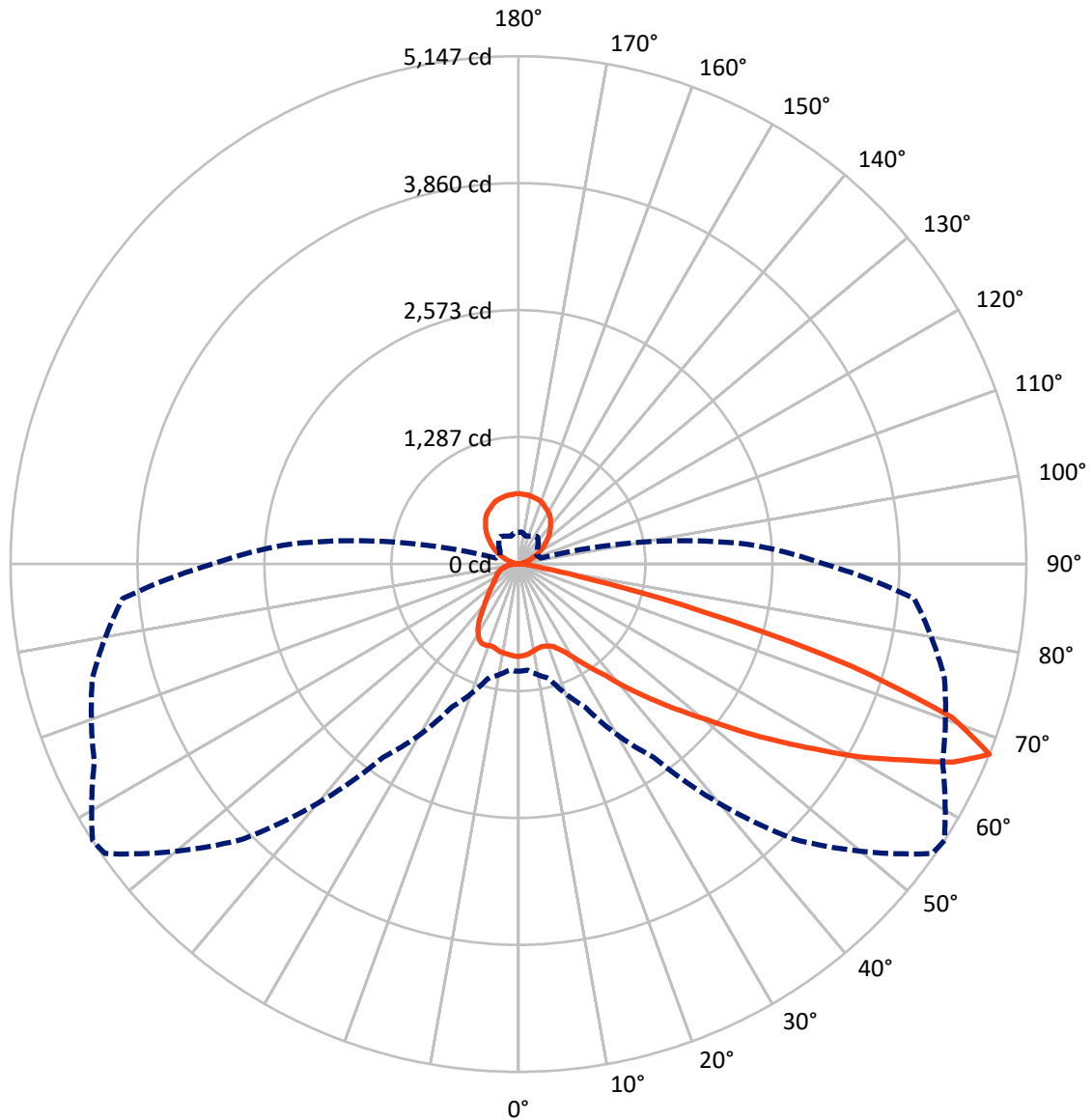
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.8 fc  
 Type III - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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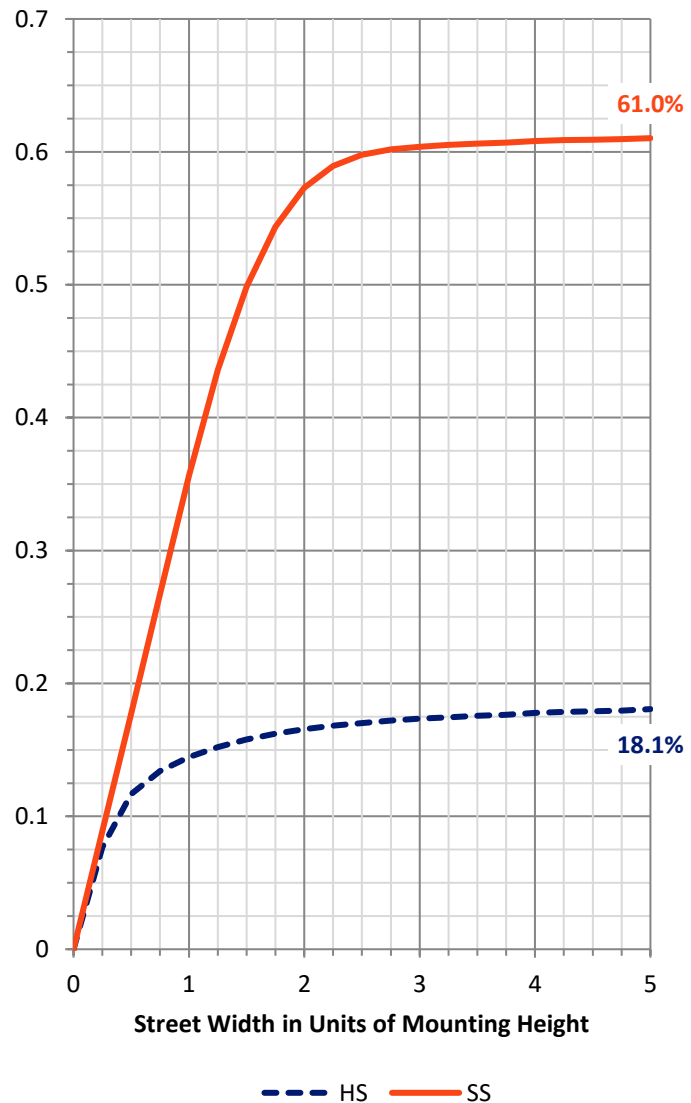
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1644.9	889.5	2534.5
	% Fixture	18.6	10.1	28.7
<b>Street Side</b>	Lumens	5419.6	888.0	6307.7
	% Fixture	61.3	10.0	71.3
<b>Total</b>	Lumens	7064.5	1777.6	8842.1
	% Fixture	79.9	20.1	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	87.5	1.0
10°-20°	251.7	2.8
20°-30°	433.2	4.9
30°-40°	704.3	8.0
40°-50°	1136.1	12.8
50°-60°	1693.7	19.2
60°-70°	1907.6	21.6
70°-80°	735.4	8.3
80°-90°	115.0	1.3
90°-100°	12.1	0.1
100°-110°	58.7	0.7
110°-120°	169.9	1.9
120°-130°	279.4	3.2
130°-140°	344.6	3.9
140°-150°	352.5	4.0
150°-160°	297.0	3.4
160°-170°	195.5	2.2
170°-180°	67.8	0.8
0°-90°	7064.5	79.9
0°-180°	8842.1	100.0



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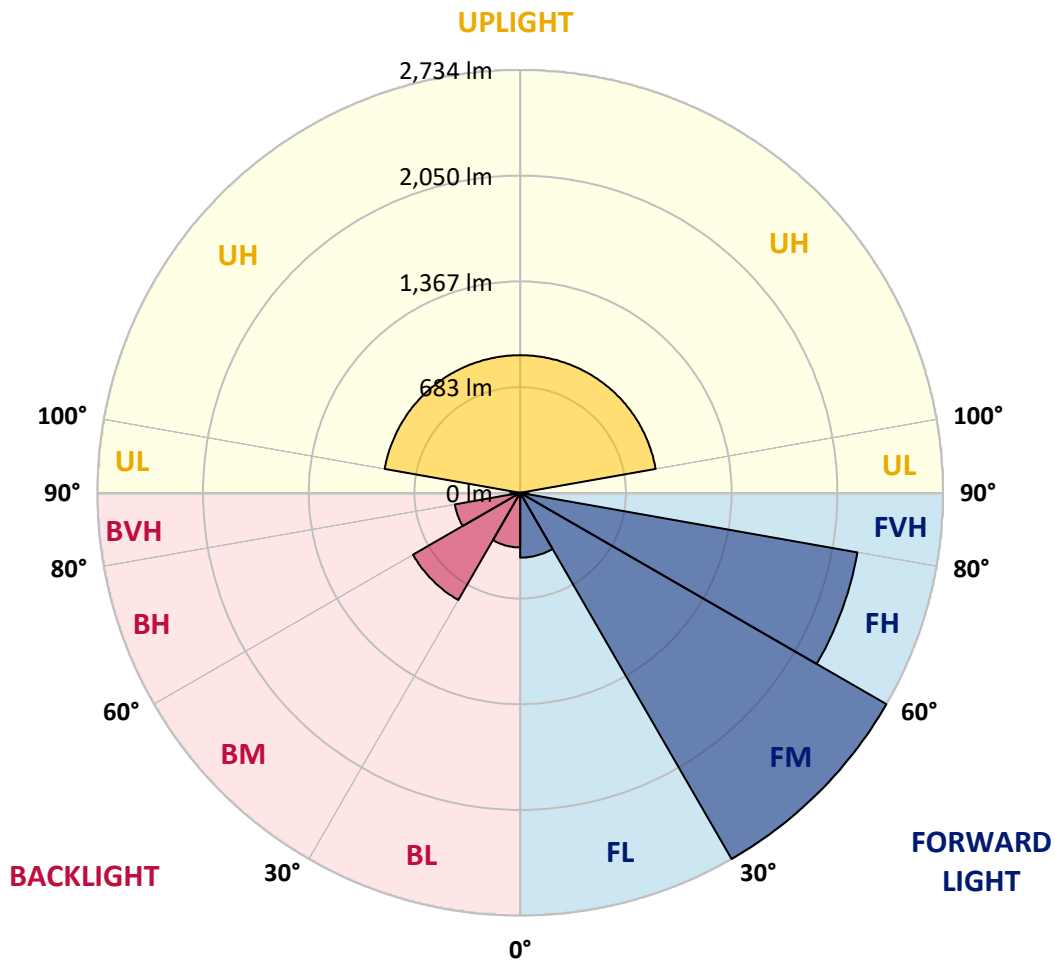
CATALOG NUMBER: IST-AF-1200-LED-E1-T3-ULG

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	419.2	4.7			
FM	(30°-60°)	2733.7	30.9			
FH	(60°-80°)	2213.9	25.0			G2/5000
FVH	(80°-90°)	52.8	0.6			G1/100
BL	(0°-30°)	353.3	4.0	B1/500		
BM	(30°-60°)	800.3	9.1	B1/1000		
BH	(60°-80°)	429.1	4.9	B1/500		G1/500
BVH	(80°-90°)	62.2	0.7			G1/100
UL	(90°-100°)	12.1	0.1		U2/50	
UH	(100°-180°)	889.5	10.1		U4/1000	

**BUG Rating: B1-U5-G2**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	936.4	936.4	936.4	936.4	936.4	936.4	936.4	936.4	936.4	936.4	936.4
2.5°	929.2	931.3	933.3	932.3	932.3	932.3	932.3	930.3	933.3	933.3	931.3
5°	913.9	914.9	916.0	918.0	920.0	922.1	923.1	923.1	924.1	923.1	921.1
7.5°	891.4	892.4	896.5	896.5	898.6	902.7	904.7	906.7	909.8	909.8	908.8
10°	884.2	884.2	884.2	881.2	883.2	884.2	887.3	887.3	895.5	899.6	901.6
12.5°	892.4	891.4	891.4	883.2	876.1	873.0	876.1	877.1	886.3	892.4	896.5
15°	910.8	910.8	908.8	896.5	882.2	870.9	869.9	869.9	877.1	886.3	893.4
17.5°	953.8	957.9	943.6	924.1	900.6	882.2	875.0	874.0	879.1	886.3	893.4
20°	1035.6	1034.6	1013.1	978.4	937.4	906.7	889.4	887.3	886.3	890.4	898.6
22.5°	1132.9	1128.8	1103.3	1059.2	1002.9	946.6	912.9	908.8	900.6	903.7	914.9
25°	1237.3	1238.3	1206.6	1149.3	1078.6	1011.1	959.9	955.8	938.5	936.4	948.7
27.5°	1341.7	1355.0	1311.9	1257.7	1173.8	1092.9	1018.2	1012.1	996.8	991.6	1003.9
30°	1494.1	1489.0	1435.8	1365.2	1281.2	1180.0	1108.4	1097.1	1066.3	1073.5	1086.8
32.5°	1623.1	1634.4	1586.3	1502.3	1391.8	1285.3	1202.5	1196.3	1166.7	1174.9	1193.3
35°	1780.7	1807.2	1743.8	1640.5	1534.0	1424.6	1325.2	1308.9	1285.3	1301.7	1316.0
37.5°	1960.8	1974.1	1925.0	1791.9	1683.5	1568.8	1456.3	1430.7	1405.1	1438.9	1464.5
40°	2132.8	2154.2	2090.8	1978.2	1852.4	1742.8	1620.0	1614.9	1555.5	1592.4	1658.9
42.5°	2387.6	2414.2	2312.8	2181.9	2068.2	1936.2	1819.5	1791.9	1727.5	1779.6	1891.2
45°	2565.7	2564.6	2496.0	2387.6	2318.0	2190.0	2032.4	1999.7	1930.1	1999.7	2149.1
47.5°	2630.1	2645.5	2621.9	2608.6	2584.1	2490.9	2258.6	2227.9	2162.4	2265.7	2403.9
50°	2725.2	2721.2	2721.2	2803.0	2873.7	2854.2	2523.6	2479.6	2411.1	2534.9	2733.4
52.5°	2749.8	2713.0	2770.3	2926.9	3151.0	3167.4	2831.7	2807.2	2725.2	2846.1	3090.6
55°	2681.3	2672.0	2763.1	2990.3	3343.4	3460.0	3188.8	3155.1	3063.0	3166.3	3476.4
57.5°	2527.7	2551.2	2697.6	2977.0	3476.4	3717.9	3580.8	3532.7	3400.7	3463.1	3859.2
60°	2367.1	2378.4	2571.8	2929.9	3512.2	3897.0	3992.2	3964.5	3738.4	3775.2	4142.6
62.5°	2189.0	2162.4	2363.0	2891.1	3472.3	4143.7	4391.3	4369.8	4102.7	4091.5	4344.3
65°	1691.7	1728.5	1899.4	2389.6	3199.1	4336.1	4867.2	4839.6	4509.0	4352.5	4322.8
67.5°	1086.8	1079.6	1200.4	1597.5	2390.6	3941.0	5115.9	5146.6	4741.3	4470.1	4026.0
70°	389.9	401.2	446.2	725.6	1310.9	2626.0	4510.1	4662.5	4570.4	4250.1	3276.8
72.5°	237.4	237.4	270.2	326.4	531.1	1245.4	3214.4	3516.3	3730.2	3502.0	2420.3
75°	186.3	185.3	196.5	225.2	286.5	408.4	1709.0	1942.4	2392.7	2419.3	1377.5
77.5°	147.4	146.4	157.6	170.9	213.9	215.9	545.4	710.2	1098.1	1033.6	492.2
80°	118.7	117.6	125.9	130.0	156.6	149.5	219.0	253.8	384.8	337.7	212.9
82.5°	107.4	107.4	115.6	99.2	108.4	105.4	136.2	145.4	193.4	200.6	128.0
85°	69.6	71.6	108.4	96.2	70.6	64.4	87.0	92.1	120.7	132.1	62.4
87.5°	32.7	35.8	82.9	79.8	47.1	34.8	49.1	52.2	65.5	80.8	36.8
90°	11.3	11.3	17.4	19.4	14.3	13.3	15.3	14.7	16.4	19.4	17.4
92.5°	4.1	4.1	5.1	6.1	6.1	6.1	7.2	7.2	7.2	6.1	6.1
95°	5.1	5.1	6.1	7.2	7.2	7.2	7.2	7.4	8.2	7.2	7.2
97.5°	7.2	7.2	8.2	8.2	9.2	9.2	12.3	11.9	10.2	9.2	8.2
100°	8.2	8.2	9.2	10.2	12.3	21.5	29.7	29.1	26.6	23.5	19.4
102.5°	11.3	11.3	13.3	18.4	27.6	40.9	51.1	50.5	48.1	43.0	39.9
105°	21.5	22.5	27.6	36.8	49.1	64.4	73.7	73.2	71.6	66.5	62.4
107.5°	41.9	43.0	50.1	59.3	74.7	90.0	97.2	97.0	96.2	92.1	89.0
110°	67.5	69.6	75.7	89.0	104.3	116.6	122.8	123.0	123.8	121.7	118.7



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CATALOG NUMBER: IST-AF-1200-LED-E1-T3-ULG

**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
112.5°	101.3	101.3	108.4	123.8	137.1	146.3	151.4	151.8	153.4	152.4	150.4
115°	143.2	142.2	150.4	162.6	171.9	178.0	183.1	183.7	186.2	183.1	181.1
117.5°	188.2	188.2	193.3	201.5	206.6	209.7	215.8	216.7	219.9	214.8	212.8
120°	230.2	228.1	231.2	238.3	242.4	248.6	251.6	252.5	255.7	250.6	248.6
122.5°	269.0	266.0	267.0	273.1	277.2	283.4	285.4	286.2	289.5	284.4	282.3
125°	304.8	300.7	302.8	305.9	312.0	317.1	320.2	320.6	322.2	317.1	317.1
127.5°	337.6	336.6	336.6	340.6	346.8	347.8	352.9	353.1	353.9	353.9	352.9
130°	371.3	369.3	370.3	374.4	378.5	380.5	385.7	386.5	389.7	389.7	387.7
132.5°	405.1	403.0	402.0	410.2	413.3	414.3	420.4	421.5	425.5	423.5	423.5
135°	438.8	435.8	435.8	441.9	445.0	447.0	453.2	454.2	458.3	457.3	460.3
137.5°	470.6	467.5	469.5	470.6	474.6	478.7	483.9	484.3	485.9	486.9	492.0
140°	499.2	496.1	498.2	500.2	502.3	508.4	511.5	511.9	513.5	515.6	520.7
142.5°	529.9	526.8	528.9	529.9	533.0	537.0	539.1	540.3	545.2	545.2	546.3
145°	562.6	558.5	556.5	559.6	562.6	563.6	568.8	570.0	574.9	573.9	570.8
147.5°	588.2	585.1	584.1	587.2	587.2	588.2	593.3	594.3	598.4	599.4	596.4
150°	608.7	605.6	606.6	606.6	606.6	606.6	610.7	611.3	613.8	616.8	619.9
152.5°	625.0	622.0	622.0	623.0	624.0	624.0	625.0	625.6	628.1	632.2	637.3
155°	643.4	639.3	639.3	641.4	644.5	642.4	640.4	641.4	645.5	650.6	652.6
157.5°	660.8	657.8	657.8	658.8	660.8	659.8	658.8	659.6	662.9	664.9	664.9
160°	678.2	675.1	674.1	671.1	670.0	670.0	673.1	674.3	679.2	676.2	675.1
162.5°	688.4	684.4	684.4	680.3	676.2	678.2	682.3	683.1	686.4	685.4	683.3
165°	696.6	693.6	691.5	691.5	688.4	688.4	687.4	688.4	692.5	695.6	693.6
167.5°	705.8	702.8	699.7	701.7	703.8	700.7	693.6	694.8	699.7	703.8	703.8
170°	714.0	711.0	707.9	707.9	708.9	706.9	701.7	702.4	704.8	709.9	712.0
172.5°	715.0	713.0	711.0	708.9	705.8	705.8	704.8	705.4	707.9	709.9	712.0
175°	716.1	714.0	713.0	711.0	706.9	705.8	705.8	706.9	711.0	712.0	709.9
177.5°	723.2	721.2	716.1	715.0	713.0	711.0	709.9	711.0	715.0	717.1	714.0
180°	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1





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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	936.4	936.4	936.4	936.4	936.4	936.4	936.4	936.4	936.4	936.4	936.4
2.5°	934.4	932.3	933.3	934.4	935.4	938.5	939.5	939.5	939.5	938.5	940.5
5°	923.1	921.1	921.1	924.1	927.2	931.3	937.4	942.5	944.6	945.6	945.6
7.5°	910.8	908.8	909.8	914.9	920.0	923.1	929.2	932.3	940.5	940.5	942.5
10°	902.7	904.7	905.7	910.8	914.9	914.9	913.9	911.9	909.8	914.9	912.9
12.5°	897.5	900.6	899.6	905.7	907.8	899.6	887.3	870.9	868.9	870.9	873.0
15°	895.5	895.5	898.6	898.6	888.3	872.0	856.6	857.6	859.7	865.8	865.8
17.5°	895.5	896.5	898.6	891.4	873.0	858.7	855.6	852.4	841.2	838.1	835.0
20°	902.7	900.6	902.7	889.4	873.0	861.7	838.1	815.6	794.1	784.9	780.8
22.5°	920.0	917.0	916.0	902.7	882.2	844.2	798.2	763.4	726.6	714.3	710.2
25°	950.7	949.7	942.5	933.3	876.1	802.3	744.0	688.8	648.9	627.4	628.4
27.5°	1004.9	1004.9	1000.9	959.9	844.2	750.1	671.4	615.1	574.1	553.6	550.6
30°	1086.8	1088.8	1090.9	967.1	794.1	673.4	591.5	553.6	529.1	513.7	512.7
32.5°	1188.2	1199.4	1186.1	958.9	725.6	580.2	529.1	515.8	503.5	493.3	492.2
35°	1322.2	1353.0	1269.0	926.2	648.9	516.8	491.2	482.0	472.8	465.6	466.7
37.5°	1502.3	1532.0	1322.2	870.9	550.6	481.0	469.7	455.4	441.1	425.8	423.7
40°	1715.2	1706.0	1340.6	766.5	489.2	463.6	448.3	429.8	405.3	382.8	378.7
42.5°	1928.1	1866.7	1325.2	637.6	449.3	448.3	426.8	403.2	378.7	359.2	359.2
45°	2166.5	2007.8	1278.2	516.8	417.6	431.9	405.3	380.7	358.1	343.8	342.8
47.5°	2391.7	2139.9	1200.4	430.9	385.9	410.4	388.9	366.4	344.8	332.6	329.5
50°	2655.7	2290.3	1141.1	372.6	355.1	388.9	379.7	359.2	338.7	324.4	322.3
52.5°	2922.8	2436.7	1096.0	332.6	327.4	372.6	375.6	363.2	341.8	314.1	312.1
55°	3202.1	2619.9	1006.0	300.8	302.9	360.2	380.7	371.5	356.1	311.1	309.0
57.5°	3436.5	2788.7	848.3	279.4	283.5	351.0	382.8	365.3	347.9	313.1	310.1
60°	3619.7	2904.4	622.3	262.0	266.1	340.7	373.6	343.8	321.3	313.1	308.0
62.5°	3676.0	2908.5	413.5	241.5	252.8	323.4	357.1	332.6	306.0	310.1	308.0
65°	3534.8	2754.9	295.7	222.1	241.5	302.9	350.0	321.3	298.8	315.2	313.1
67.5°	3099.8	2321.1	237.4	206.7	226.2	281.4	336.7	311.1	292.7	326.4	320.3
70°	2415.2	1665.1	201.6	191.4	209.8	261.0	318.2	299.8	284.5	317.2	309.0
72.5°	1592.4	980.4	178.1	177.1	190.4	243.6	297.8	289.6	271.2	287.6	275.3
75°	830.9	454.4	154.6	160.7	168.9	228.2	279.4	271.2	250.7	256.9	252.8
77.5°	326.4	212.9	134.1	141.3	150.5	205.7	255.8	247.7	230.3	225.2	224.1
80°	179.1	143.3	111.5	120.7	126.9	185.3	231.3	222.1	203.7	200.6	197.5
82.5°	113.5	93.1	92.1	98.2	106.4	164.8	207.8	193.4	178.1	209.8	169.9
85°	53.2	55.2	65.5	73.7	82.9	140.2	181.2	165.8	150.5	146.4	130.0
87.5°	29.7	36.8	43.0	50.1	57.3	98.2	143.3	129.0	112.5	96.2	99.2
90°	14.3	14.3	21.5	20.5	19.4	21.5	78.8	71.6	63.4	31.7	22.5
92.5°	6.1	6.1	6.1	7.2	7.2	6.1	6.1	6.1	5.1	4.1	4.1
95°	7.2	7.2	7.2	8.2	7.2	7.2	7.2	7.2	6.1	5.1	5.1
97.5°	8.2	8.2	9.2	10.2	12.3	9.2	9.2	8.2	8.2	7.2	7.2
100°	19.4	19.4	23.5	26.6	29.7	21.5	12.3	10.2	9.2	8.2	8.2
102.5°	38.9	39.9	43.0	48.1	51.1	40.9	27.6	18.4	13.3	11.3	11.3
105°	62.4	62.4	66.5	71.6	73.7	64.4	49.1	36.8	27.6	22.5	21.5
107.5°	88.0	89.0	92.1	96.2	97.2	90.0	74.7	59.3	50.1	43.0	41.9
110°	119.7	118.7	121.7	123.8	122.8	116.6	104.3	89.0	75.7	69.6	67.5



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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	150.4	150.4	152.4	153.4	151.4	146.3	137.1	123.8	108.4	101.3	101.3
115°	182.1	181.1	183.1	186.2	183.1	178.0	171.9	162.6	150.4	142.2	143.2
117.5°	213.8	212.8	214.8	219.9	215.8	209.7	206.6	201.5	193.3	188.2	188.2
120°	248.6	248.6	250.6	255.7	251.6	248.6	242.4	238.3	231.2	228.1	230.2
122.5°	283.4	282.3	284.4	289.5	285.4	283.4	277.2	273.1	267.0	266.0	269.0
125°	317.1	317.1	317.1	322.2	320.2	317.1	312.0	305.9	302.8	300.7	304.8
127.5°	355.0	352.9	353.9	353.9	352.9	347.8	346.8	340.6	336.6	336.6	337.6
130°	388.7	387.7	389.7	389.7	385.7	380.5	378.5	374.4	370.3	369.3	371.3
132.5°	424.5	423.5	423.5	425.5	420.4	414.3	413.3	410.2	402.0	403.0	405.1
135°	461.4	460.3	457.3	458.3	453.2	447.0	445.0	441.9	435.8	435.8	438.8
137.5°	493.1	492.0	486.9	485.9	483.9	478.7	474.6	470.6	469.5	467.5	470.6
140°	522.7	520.7	515.6	513.5	511.5	508.4	502.3	500.2	498.2	496.1	499.2
142.5°	548.3	546.3	545.2	545.2	539.1	537.0	533.0	529.9	528.9	526.8	529.9
145°	572.9	570.8	573.9	574.9	568.8	563.6	562.6	559.6	556.5	558.5	562.6
147.5°	598.4	596.4	599.4	598.4	593.3	588.2	587.2	587.2	584.1	585.1	588.2
150°	624.0	619.9	616.8	613.8	610.7	606.6	606.6	606.6	606.6	605.6	608.7
152.5°	642.4	637.3	632.2	628.1	625.0	624.0	624.0	623.0	622.0	622.0	625.0
155°	655.7	652.6	650.6	645.5	640.4	642.4	644.5	641.4	639.3	639.3	643.4
157.5°	670.0	664.9	664.9	662.9	658.8	659.8	660.8	658.8	657.8	657.8	660.8
160°	681.3	675.1	676.2	679.2	673.1	670.0	670.0	671.1	674.1	675.1	678.2
162.5°	689.5	683.3	685.4	686.4	682.3	678.2	676.2	680.3	684.4	684.4	688.4
165°	697.7	693.6	695.6	692.5	687.4	688.4	688.4	691.5	691.5	693.6	696.6
167.5°	709.9	703.8	703.8	699.7	693.6	700.7	703.8	701.7	699.7	702.8	705.8
170°	717.1	712.0	709.9	704.8	701.7	706.9	708.9	707.9	707.9	711.0	714.0
172.5°	717.1	712.0	709.9	707.9	704.8	705.8	705.8	708.9	711.0	713.0	715.0
175°	715.0	709.9	712.0	711.0	705.8	705.8	706.9	711.0	713.0	714.0	716.1
177.5°	718.1	714.0	717.1	715.0	709.9	711.0	713.0	715.0	716.1	721.2	723.2
180°	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1

(END OF REPORT)