

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: P226688

Luminaire Tested: **IST-AF-800-LED-E1-T4W-7050-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P226688
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35944)-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-800-LED-E1-T4W-7050-ULG
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE WITH UPLIGHT
LIGHT SQUARE WITH ACCULED OPTICS-TYPE IV WIDE, 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: 6865.3 lumens
Efficiency: N/A
Efficacy: 114.0 lumens/watt
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.54')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B1 - U5 - G2

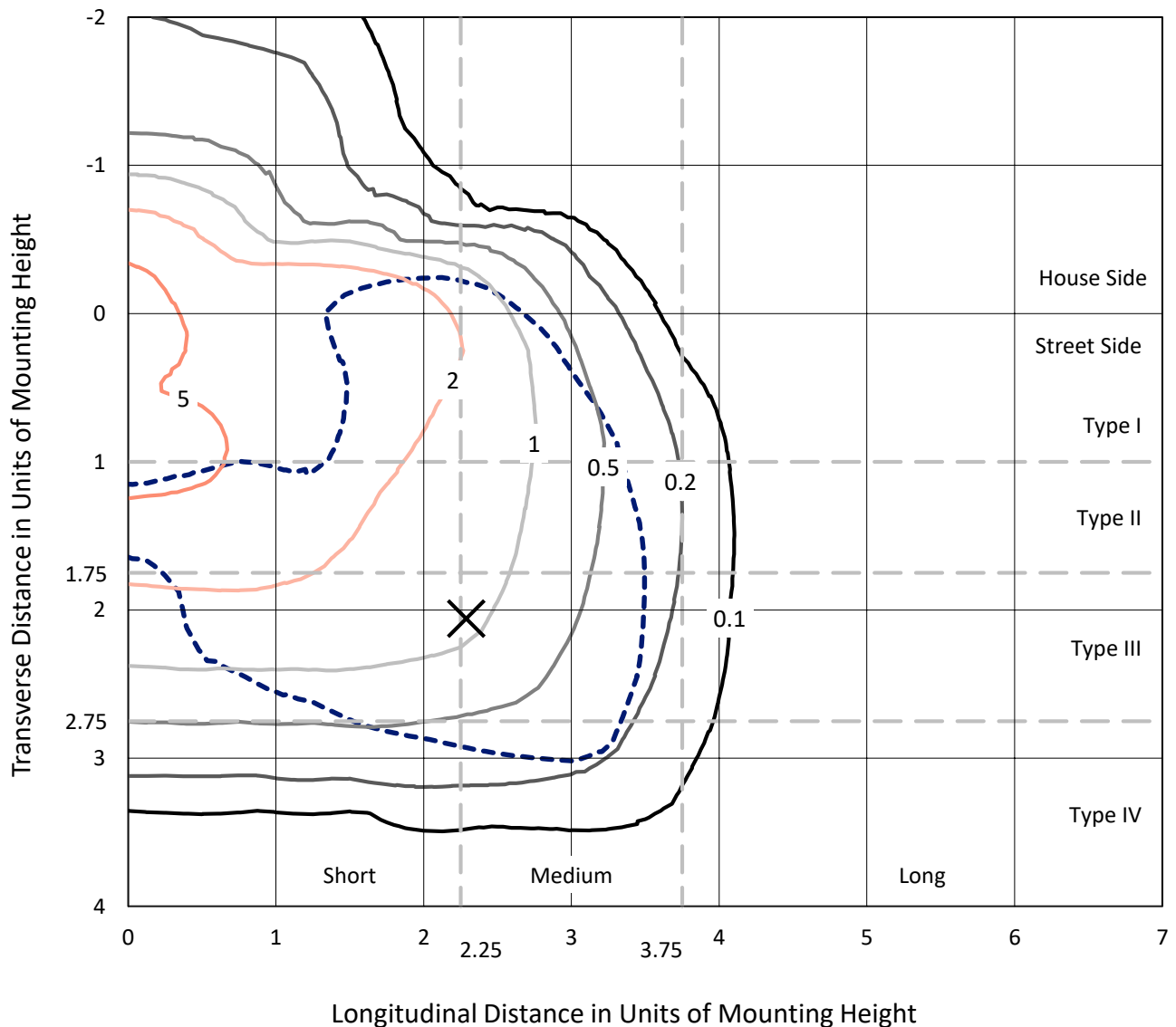
Input Watts (W): 60.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

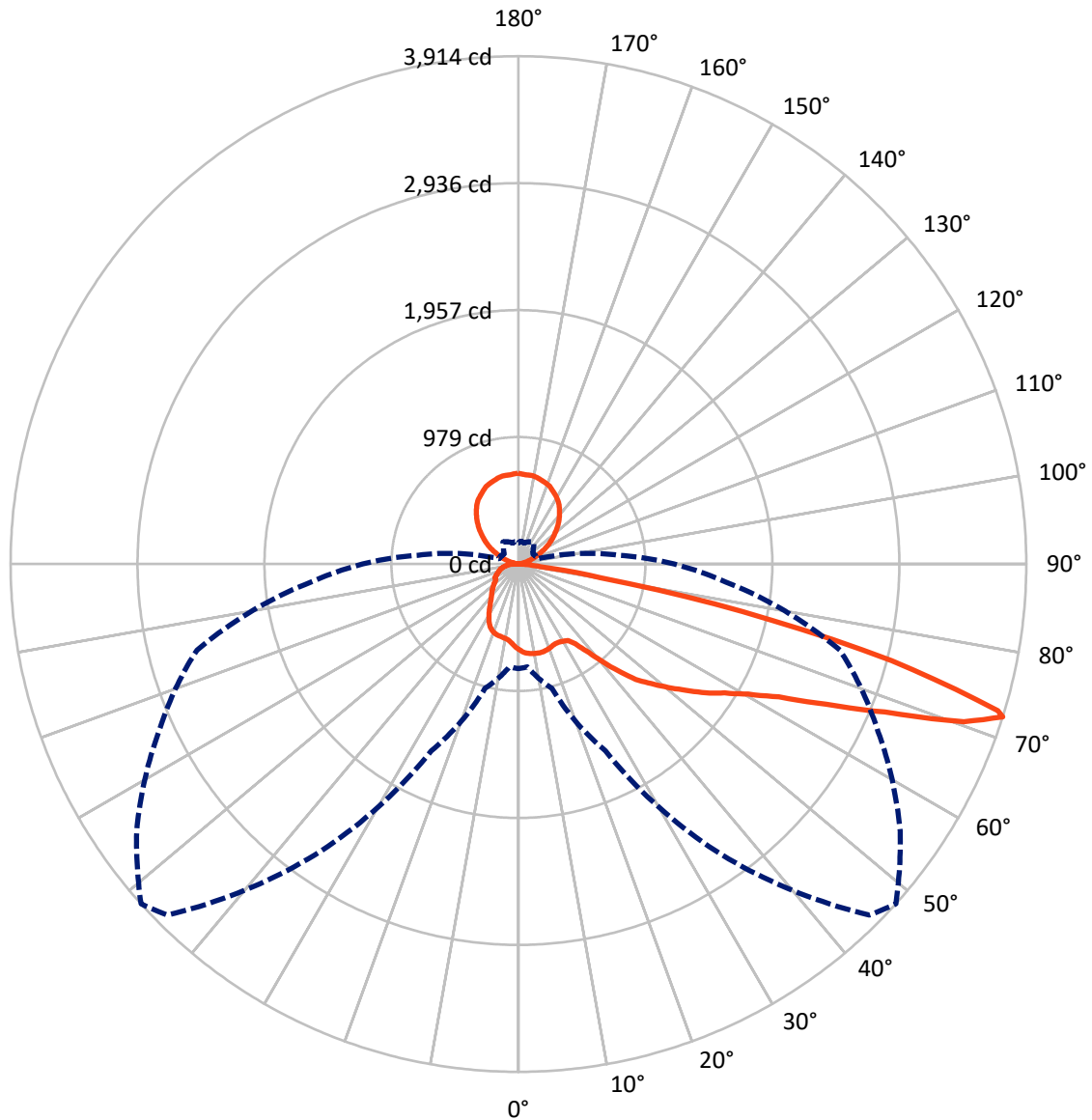
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.4 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 48-Deg Lateral - - - Horizontal Cone Through 72-Deg Vertical

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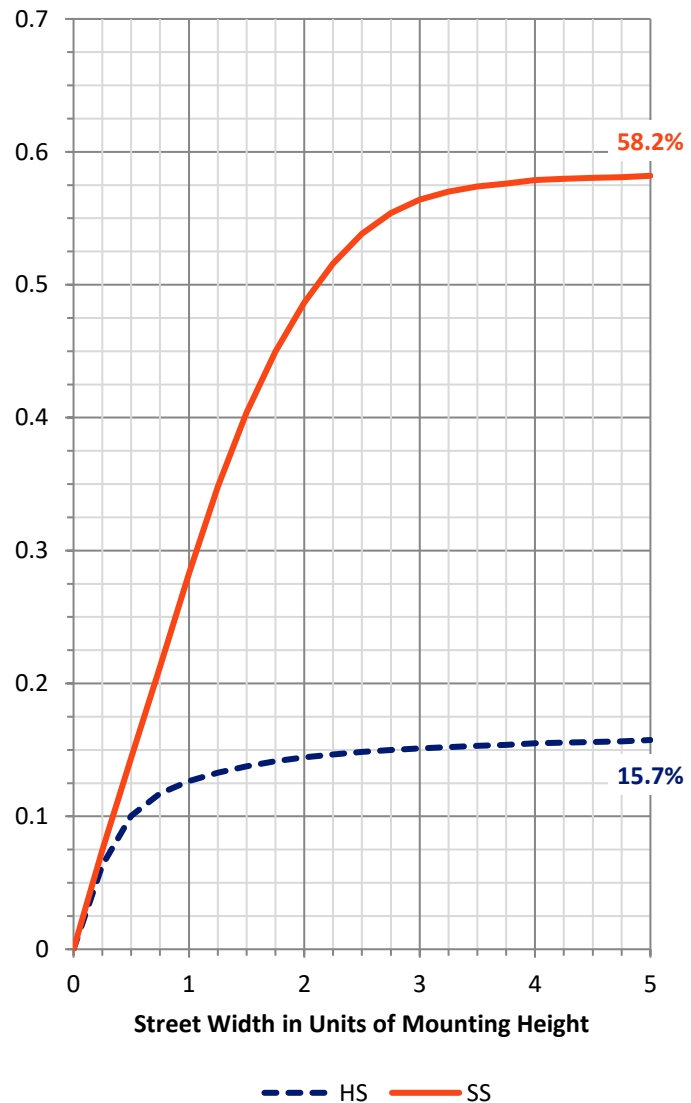
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1114.5	869.9	1984.4
	% Fixture	16.2	12.7	28.9
Street Side	Lumens	4012.5	868.4	4880.9
	% Fixture	58.4	12.6	71.1
Total	Lumens	5127.0	1738.3	6865.3
	% Fixture	74.7	25.3	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.4	0.9
10°-20°	182.3	2.7
20°-30°	281.0	4.1
30°-40°	421.2	6.1
40°-50°	701.4	10.2
50°-60°	1096.2	16.0
60°-70°	1447.9	21.1
70°-80°	837.6	12.2
80°-90°	97.0	1.4
90°-100°	12.4	0.2
100°-110°	57.4	0.8
110°-120°	166.1	2.4
120°-130°	273.2	4.0
130°-140°	336.8	4.9
140°-150°	344.6	5.0
150°-160°	290.3	4.2
160°-170°	191.2	2.8
170°-180°	66.3	1.0
0°-90°	5127.0	74.7
0°-180°	6865.3	100.0



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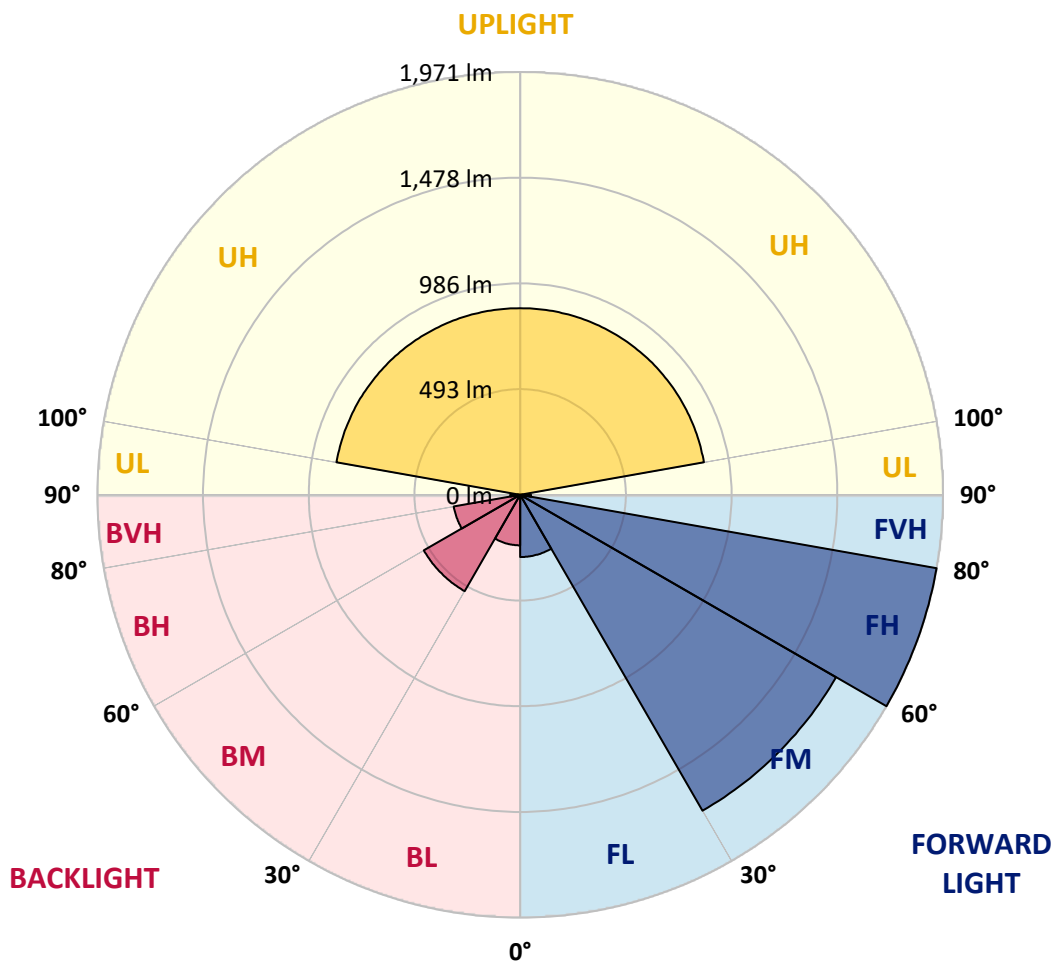
CATALOG NUMBER: IST-AF-800-LED-E1-T4W-7050-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	290.0	4.2			
FM	(30°-60°)	1700.5	24.8			
FH	(60°-80°)	1971.2	28.7			G2/5000
FVH	(80°-90°)	50.9	0.7			G1/100
BL	(0°-30°)	235.7	3.4	B1/500		
BM	(30°-60°)	518.4	7.6	B1/1000		
BH	(60°-80°)	314.3	4.6	B1/500		G1/500
BVH	(80°-90°)	46.1	0.7			G1/100
UL	(90°-100°)	12.4	0.2		U2/50	
UH	(100°-180°)	869.9	12.7		U4/1000	

BUG Rating: B1-U5-G2

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	48°	55°	65°	75°	85°
0°	659.8	659.8	659.8	659.8	659.8	659.8	659.8	659.8	659.8	659.8	659.8
2.5°	694.8	694.1	694.1	688.1	685.9	682.2	679.2	674.7	670.3	665.0	658.3
5°	728.3	730.5	727.5	718.6	707.4	695.5	691.1	680.7	666.5	653.9	642.0
7.5°	760.3	761.0	752.8	737.9	720.8	702.2	696.3	682.2	666.5	649.4	632.3
10°	783.3	784.1	772.2	751.3	728.3	707.4	700.8	686.6	667.3	648.7	627.1
12.5°	796.7	797.5	779.6	758.0	730.5	709.7	703.7	688.8	668.8	645.0	621.2
15°	794.5	796.7	781.8	758.0	729.0	710.4	703.0	690.3	665.0	641.2	615.9
17.5°	779.6	782.6	770.7	744.6	721.6	706.7	698.5	685.9	661.3	636.0	608.5
20°	750.6	754.3	749.1	723.8	708.2	696.3	691.1	679.2	656.1	630.1	601.8
22.5°	717.9	721.6	720.1	699.3	691.8	685.9	680.7	671.7	651.7	625.6	598.8
25°	694.1	697.0	694.8	676.9	679.2	679.2	676.2	669.5	650.9	627.1	598.8
27.5°	733.5	733.5	714.1	677.7	674.0	680.7	679.2	675.5	660.6	634.5	604.8
30°	877.8	866.6	831.7	740.2	693.3	690.3	689.6	687.4	674.0	650.9	623.4
32.5°	1039.2	1028.1	986.4	871.8	774.4	710.4	703.7	704.5	700.8	679.2	651.7
35°	1182.8	1181.3	1148.6	1024.3	900.1	781.1	754.3	736.5	735.0	726.0	704.5
37.5°	1298.8	1298.8	1301.8	1160.5	1036.3	893.4	848.0	791.5	791.5	786.3	772.9
40°	1431.3	1437.2	1443.9	1284.0	1182.1	1027.3	976.0	890.4	864.4	872.6	875.6
42.5°	1605.3	1612.8	1608.3	1436.5	1315.2	1187.3	1124.0	1020.6	956.7	970.0	1001.3
45°	1722.9	1725.8	1757.8	1595.7	1482.6	1322.7	1269.1	1127.0	1063.8	1091.3	1146.3
47.5°	1856.0	1863.5	1868.7	1776.4	1679.0	1475.9	1377.7	1230.4	1189.5	1231.2	1318.2
50°	1986.2	1976.5	1990.7	1987.0	1865.0	1612.0	1495.2	1327.1	1330.1	1386.6	1529.5
52.5°	2099.3	2066.5	2099.3	2140.2	2104.5	1751.9	1615.7	1440.9	1484.1	1553.3	1778.7
55°	2186.3	2107.5	2162.5	2278.6	2270.4	1875.4	1753.4	1592.7	1664.8	1759.3	2081.4
57.5°	2008.5	2018.2	2170.0	2371.5	2367.8	2000.3	1873.9	1782.4	1870.9	1976.5	2440.0
60°	1842.6	1885.8	2120.1	2386.4	2435.5	2136.5	2036.0	1998.1	2079.9	2208.6	2783.7
62.5°	1754.9	1795.8	2039.0	2358.9	2543.4	2338.1	2254.0	2225.0	2336.6	2480.9	3090.2
65°	1782.4	1807.7	2033.8	2400.6	2667.6	2643.1	2606.6	2558.3	2614.1	2749.4	3228.5
67.5°	1705.0	1746.7	1990.7	2474.2	2894.5	3015.0	3045.5	2993.4	2946.6	2928.0	3026.9
70°	1269.1	1309.3	1565.2	2170.0	3080.5	3660.7	3642.1	3468.1	3152.6	2889.3	2364.9
72°	806.4	795.2	990.9	1589.7	2738.3	3826.6	3914.4	3592.3	3058.9	2565.7	1606.1
72.5°	586.2	639.0	822.0	1413.4	2601.4	3735.9	3863.8	3552.1	2936.2	2423.6	1412.7
75°	142.8	151.0	197.1	506.6	1523.5	2811.2	2971.9	2744.2	2143.2	1438.7	626.4
77.5°	96.7	100.4	130.2	178.5	447.8	1603.1	1763.8	1515.3	958.9	489.5	279.0
80°	72.2	74.4	94.5	126.5	186.0	546.8	645.0	512.5	238.8	271.5	198.6
82.5°	50.6	52.1	71.4	93.0	123.5	128.0	170.4	188.2	154.7	177.8	116.0
85°	35.0	35.0	52.1	64.0	78.1	63.2	67.7	94.5	104.9	105.6	70.7
87.5°	18.6	20.8	30.5	40.9	40.9	29.0	32.0	48.4	58.8	63.2	42.4
90°	11.7	11.7	19.6	23.6	17.7	14.4	13.7	16.7	23.1	29.1	20.4
92.5°	4.0	4.0	5.0	6.0	6.0	6.0	6.3	7.0	7.0	6.0	6.0
95°	5.0	5.0	6.0	7.0	7.0	7.0	7.0	7.0	8.0	7.0	7.0
97.5°	7.0	7.0	8.0	8.0	9.0	9.0	9.9	12.0	10.0	9.0	8.0
100°	8.0	8.0	9.0	10.0	12.0	21.0	23.4	29.0	26.0	23.0	19.0
102.5°	11.0	11.0	13.0	18.0	27.0	40.0	43.0	50.0	47.0	42.0	39.0
105°	21.0	22.0	27.0	36.0	48.0	63.0	65.7	72.0	70.0	65.0	61.0
107.5°	41.0	42.0	49.0	58.0	73.0	88.0	90.1	95.0	94.0	90.0	87.0



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CATALOG NUMBER: IST-AF-800-LED-E1-T4W-7050-ULG

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	48°	55°	65°	75°	85°
110°	66.0	68.0	74.0	87.0	102.0	114.0	115.8	120.0	121.0	119.0	116.0
112.5°	99.0	99.0	106.0	121.0	134.0	143.0	144.5	148.0	150.0	149.0	147.0
115°	140.0	139.0	147.0	159.0	168.0	174.0	175.5	179.0	182.0	179.0	177.0
117.5°	184.0	184.0	189.0	197.0	202.0	205.0	206.8	211.0	215.0	210.0	208.0
120°	225.0	223.0	226.0	233.0	237.0	243.0	243.9	246.0	250.0	245.0	243.0
122.5°	263.0	260.0	261.0	267.0	271.0	277.0	277.6	279.0	283.0	278.0	276.0
125°	298.0	294.0	296.0	299.0	305.0	310.0	310.9	313.0	315.0	310.0	310.0
127.5°	330.0	329.0	329.0	333.0	339.0	340.0	341.5	345.0	346.0	346.0	345.0
130°	363.0	361.0	362.0	366.0	370.0	372.0	373.5	377.0	381.0	381.0	379.0
132.5°	396.0	394.0	393.0	401.0	404.0	405.0	406.8	411.0	416.0	414.0	414.0
135°	429.0	426.0	426.0	432.0	435.0	437.0	438.8	443.0	448.0	447.0	450.0
137.5°	460.0	457.0	459.0	460.0	464.0	468.0	469.5	473.0	475.0	476.0	481.0
140°	488.0	485.0	487.0	489.0	491.0	497.0	497.9	500.0	502.0	504.0	509.0
142.5°	518.0	515.0	517.0	518.0	521.0	525.0	525.6	527.0	533.0	533.0	534.0
145°	550.0	546.0	544.0	547.0	550.0	551.0	552.5	556.0	562.0	561.0	558.0
147.5°	575.0	572.0	571.0	574.0	574.0	575.0	576.5	580.0	585.0	586.0	583.0
150°	595.0	592.0	593.0	593.0	593.0	593.0	594.2	597.0	600.0	603.0	606.0
152.5°	611.0	608.0	608.0	609.0	610.0	610.0	610.3	611.0	614.0	618.0	623.0
155°	629.0	625.0	625.0	627.0	630.0	628.0	627.4	626.0	631.0	636.0	638.0
157.5°	646.0	643.0	643.0	644.0	646.0	645.0	644.7	644.0	648.0	650.0	650.0
160°	663.0	660.0	659.0	656.0	655.0	655.0	655.9	658.0	664.0	661.0	660.0
162.5°	673.0	669.0	669.0	665.0	661.0	663.0	664.2	667.0	671.0	670.0	668.0
165°	681.0	678.0	676.0	676.0	673.0	673.0	672.7	672.0	677.0	680.0	678.0
167.5°	690.0	687.0	684.0	686.0	688.0	685.0	682.9	678.0	684.0	688.0	688.0
170°	698.0	695.0	692.0	692.0	693.0	691.0	689.5	686.0	689.0	694.0	696.0
172.5°	699.0	697.0	695.0	693.0	690.0	690.0	689.7	689.0	692.0	694.0	696.0
175°	700.0	698.0	697.0	695.0	691.0	690.0	690.0	690.0	695.0	696.0	694.0
177.5°	707.0	705.0	700.0	699.0	697.0	695.0	694.7	694.0	699.0	701.0	698.0
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	659.8	659.8	659.8	659.8	659.8	659.8	659.8	659.8	659.8	659.8	659.8
2.5°	656.9	652.4	646.4	643.5	642.0	639.0	636.0	634.5	634.5	631.6	632.3
5°	636.0	629.3	621.2	615.2	614.5	614.5	615.9	615.9	616.7	614.5	617.4
7.5°	625.6	618.2	606.3	599.6	594.4	593.6	596.6	602.6	605.5	603.3	606.3
10°	618.2	610.0	596.6	588.4	584.7	583.2	585.4	591.4	601.1	601.1	604.0
12.5°	610.7	600.3	586.9	581.0	578.0	578.8	581.7	586.2	596.6	600.3	601.8
15°	603.3	591.4	580.2	572.1	572.1	574.3	578.0	583.2	592.9	599.6	601.1
17.5°	595.9	584.0	574.3	567.6	567.6	570.6	574.3	581.0	587.7	597.4	597.4
20°	589.2	579.5	566.9	560.9	560.2	562.4	566.9	573.5	578.8	588.4	589.2
22.5°	585.4	573.5	561.6	552.7	549.0	547.5	552.0	558.7	563.9	573.5	575.0
25°	584.0	570.6	555.7	539.3	529.7	526.7	528.9	537.1	541.6	549.0	551.2
27.5°	589.2	576.5	553.5	523.7	503.6	495.4	497.7	502.9	504.4	512.5	516.3
30°	607.0	592.1	557.9	507.3	470.9	456.0	456.0	456.8	459.0	465.7	466.4
32.5°	636.0	621.9	571.3	490.2	437.4	416.6	411.4	407.7	407.7	406.9	407.7
35°	689.6	677.7	594.4	470.9	401.0	377.9	365.3	358.6	351.9	348.9	348.1
37.5°	767.0	756.5	627.1	448.6	369.0	345.9	330.3	316.9	309.5	308.7	312.4
40°	882.3	871.8	663.6	423.3	338.5	321.4	305.0	290.9	282.7	283.4	287.1
42.5°	1024.3	992.4	703.0	389.1	313.9	305.0	287.1	275.2	267.1	262.6	261.9
45°	1190.2	1136.7	740.2	357.1	287.1	290.9	273.8	260.4	249.9	238.0	236.6
47.5°	1397.0	1281.0	772.9	325.1	258.1	276.0	259.6	247.0	231.4	217.2	215.0
50°	1612.8	1446.9	801.2	290.9	232.1	259.6	245.5	228.4	206.8	194.2	194.2
52.5°	1862.0	1646.2	837.6	252.9	212.0	241.8	227.6	205.3	187.5	186.0	186.0
55°	2139.5	1855.3	862.9	223.2	196.4	222.4	215.7	209.0	203.1	204.6	205.3
57.5°	2429.6	2073.2	840.6	202.3	183.7	218.0	237.3	228.4	209.8	209.0	208.3
60°	2679.5	2242.9	717.1	189.0	174.1	225.4	254.4	228.4	209.8	219.4	220.2
62.5°	2843.2	2323.2	477.6	171.8	159.9	212.8	248.5	221.7	210.5	238.0	240.3
65°	2820.9	2233.2	274.5	159.9	151.0	195.6	240.3	213.5	196.4	212.0	207.5
67.5°	2488.3	1871.6	198.6	154.7	144.3	183.7	225.4	201.6	183.0	202.3	194.2
70°	1788.3	1274.3	171.1	150.3	139.9	169.6	215.0	194.2	175.6	189.0	176.3
72°	1199.9	775.1	157.0	146.5	135.4	160.7	207.5	188.2	168.9	176.3	162.2
72.5°	1021.4	611.5	153.2	145.1	133.9	158.5	205.3	186.7	167.4	174.8	161.4
75°	381.6	239.5	136.1	133.9	123.5	147.3	196.4	180.0	159.9	157.7	151.8
77.5°	196.4	151.8	116.0	118.3	110.8	134.6	186.7	169.6	147.3	139.1	136.1
80°	142.8	110.1	93.7	100.4	94.5	121.3	173.3	154.0	133.9	125.0	121.3
82.5°	90.0	68.4	71.4	79.6	80.3	107.1	157.7	138.4	119.0	111.6	105.6
85°	43.1	40.9	50.6	58.8	64.7	90.8	144.3	122.7	104.1	89.3	90.0
87.5°	23.1	31.2	30.5	39.4	49.8	74.4	128.0	100.4	83.3	67.0	67.7
90°	12.2	15.2	17.9	24.6	27.1	39.0	90.6	65.3	62.8	28.8	25.8
92.5°	6.0	6.0	6.0	7.0	7.0	6.0	6.0	6.0	5.0	4.0	4.0
95°	7.0	7.0	7.0	8.0	7.0	7.0	7.0	7.0	6.0	5.0	5.0
97.5°	8.0	8.0	9.0	10.0	12.0	9.0	9.0	8.0	8.0	7.0	7.0
100°	19.0	19.0	23.0	26.0	29.0	21.0	12.0	10.0	9.0	8.0	8.0
102.5°	38.0	39.0	42.0	47.0	50.0	40.0	27.0	18.0	13.0	11.0	11.0
105°	61.0	61.0	65.0	70.0	72.0	63.0	48.0	36.0	27.0	22.0	21.0
107.5°	86.0	87.0	90.0	94.0	95.0	88.0	73.0	58.0	49.0	42.0	41.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	117.0	116.0	119.0	121.0	120.0	114.0	102.0	87.0	74.0	68.0	66.0
112.5°	147.0	147.0	149.0	150.0	148.0	143.0	134.0	121.0	106.0	99.0	99.0
115°	178.0	177.0	179.0	182.0	179.0	174.0	168.0	159.0	147.0	139.0	140.0
117.5°	209.0	208.0	210.0	215.0	211.0	205.0	202.0	197.0	189.0	184.0	184.0
120°	243.0	243.0	245.0	250.0	246.0	243.0	237.0	233.0	226.0	223.0	225.0
122.5°	277.0	276.0	278.0	283.0	279.0	277.0	271.0	267.0	261.0	260.0	263.0
125°	310.0	310.0	310.0	315.0	313.0	310.0	305.0	299.0	296.0	294.0	298.0
127.5°	347.0	345.0	346.0	346.0	345.0	340.0	339.0	333.0	329.0	329.0	330.0
130°	380.0	379.0	381.0	381.0	377.0	372.0	370.0	366.0	362.0	361.0	363.0
132.5°	415.0	414.0	414.0	416.0	411.0	405.0	404.0	401.0	393.0	394.0	396.0
135°	451.0	450.0	447.0	448.0	443.0	437.0	435.0	432.0	426.0	426.0	429.0
137.5°	482.0	481.0	476.0	475.0	473.0	468.0	464.0	460.0	459.0	457.0	460.0
140°	511.0	509.0	504.0	502.0	500.0	497.0	491.0	489.0	487.0	485.0	488.0
142.5°	536.0	534.0	533.0	533.0	527.0	525.0	521.0	518.0	517.0	515.0	518.0
145°	560.0	558.0	561.0	562.0	556.0	551.0	550.0	547.0	544.0	546.0	550.0
147.5°	585.0	583.0	586.0	585.0	580.0	575.0	574.0	574.0	571.0	572.0	575.0
150°	610.0	606.0	603.0	600.0	597.0	593.0	593.0	593.0	593.0	592.0	595.0
152.5°	628.0	623.0	618.0	614.0	611.0	610.0	610.0	609.0	608.0	608.0	611.0
155°	641.0	638.0	636.0	631.0	626.0	628.0	630.0	627.0	625.0	625.0	629.0
157.5°	655.0	650.0	650.0	648.0	644.0	645.0	646.0	644.0	643.0	643.0	646.0
160°	666.0	660.0	661.0	664.0	658.0	655.0	655.0	656.0	659.0	660.0	663.0
162.5°	674.0	668.0	670.0	671.0	667.0	663.0	661.0	665.0	669.0	669.0	673.0
165°	682.0	678.0	680.0	677.0	672.0	673.0	673.0	676.0	676.0	678.0	681.0
167.5°	694.0	688.0	688.0	684.0	678.0	685.0	688.0	686.0	684.0	687.0	690.0
170°	701.0	696.0	694.0	689.0	686.0	691.0	693.0	692.0	692.0	695.0	698.0
172.5°	701.0	696.0	694.0	692.0	689.0	690.0	690.0	693.0	695.0	697.0	699.0
175°	699.0	694.0	696.0	695.0	690.0	690.0	691.0	695.0	697.0	698.0	700.0
177.5°	702.0	698.0	701.0	699.0	694.0	695.0	697.0	699.0	700.0	705.0	707.0
180°	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0	700.0

(END OF REPORT)