

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: P226691

Luminaire Tested: **IST-AF-600-LED-E1-T4W-8030-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P226691
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-600-LED-E1-T4W-8030-ULG
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE WITH UPLIGHT
LIGHT SQUARE WITH ACCULED OPTICS-TYPE IV WIDE, 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: 5079.7 lumens
Efficiency: N/A
Efficacy: 100.8 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 - G1

Input Watts (W): 50.4
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

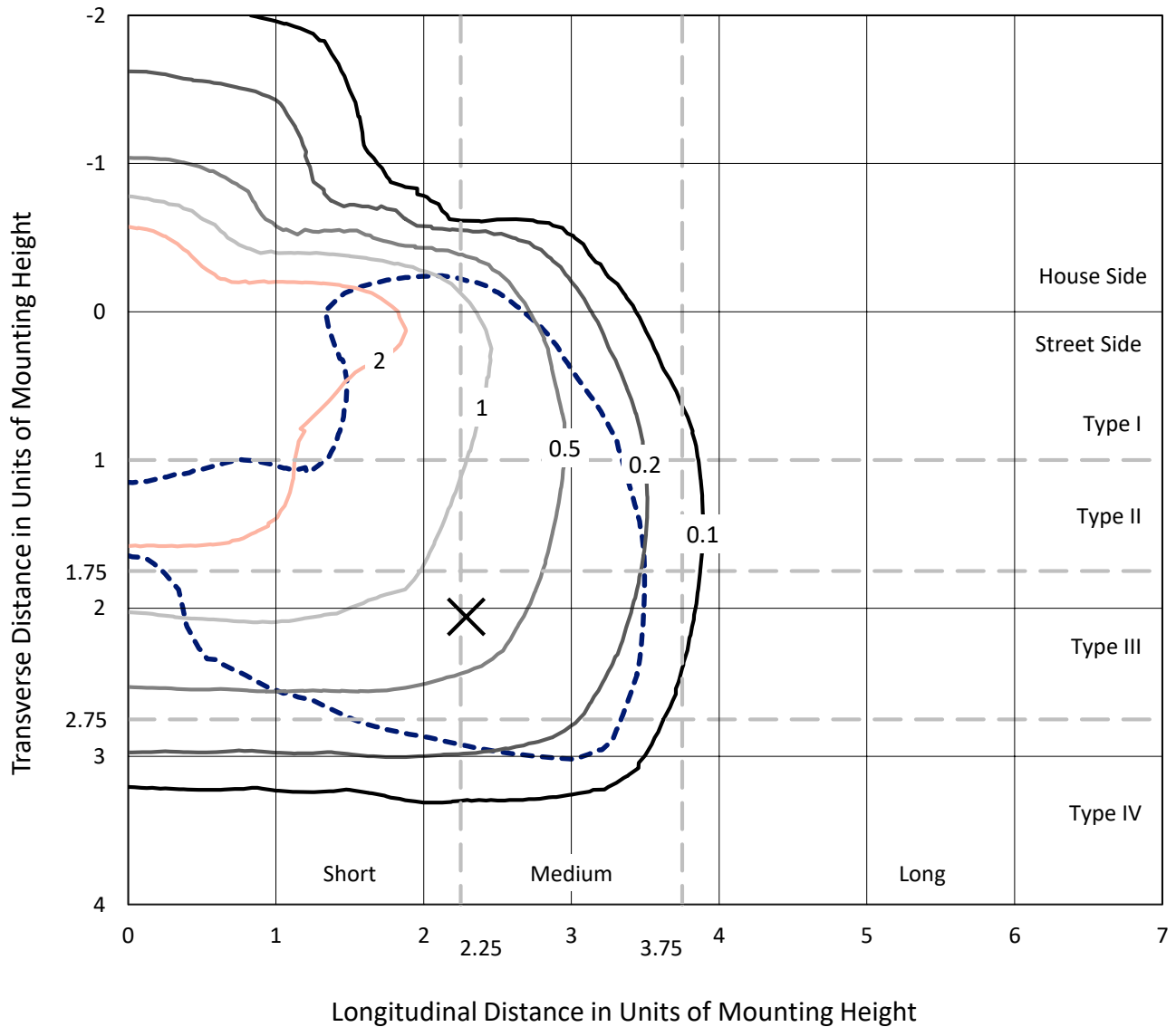


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Iso-Footcandle Lines of Horizontal Illumination

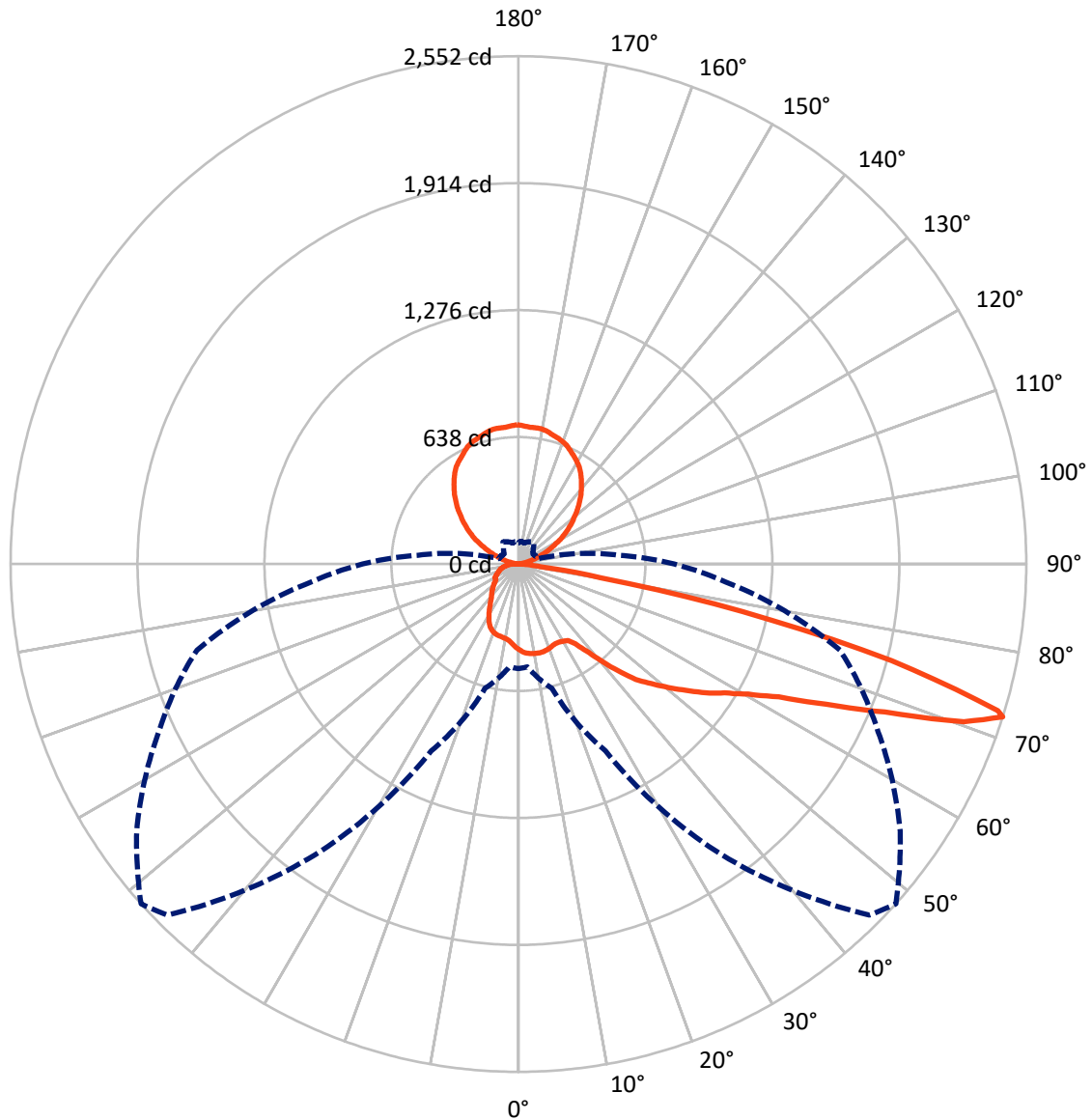
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.8 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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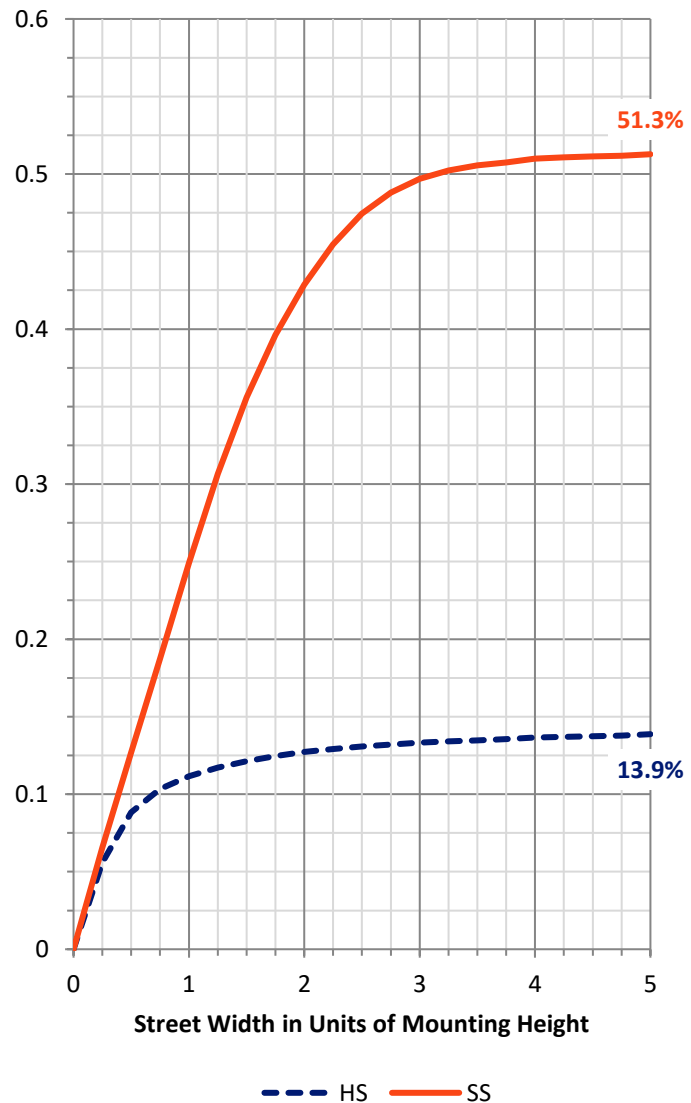
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	726.7	869.1	1595.8
	% Fixture	14.3	17.1	31.4
Street Side	Lumens	2615.8	868.1	3483.9
	% Fixture	51.5	17.1	68.6
Total	Lumens	3342.5	1737.2	5079.7
	% Fixture	65.8	34.2	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.7	0.8
10°-20°	118.8	2.3
20°-30°	183.2	3.6
30°-40°	274.6	5.4
40°-50°	457.3	9.0
50°-60°	714.6	14.1
60°-70°	943.9	18.6
70°-80°	546.0	10.7
80°-90°	63.6	1.3
90°-100°	11.3	0.2
100°-110°	57.4	1.1
110°-120°	166.1	3.3
120°-130°	273.2	5.4
130°-140°	336.8	6.6
140°-150°	344.6	6.8
150°-160°	290.3	5.7
160°-170°	191.2	3.8
170°-180°	66.3	1.3
0°-90°	3342.5	65.8
0°-180°	5079.7	100.0



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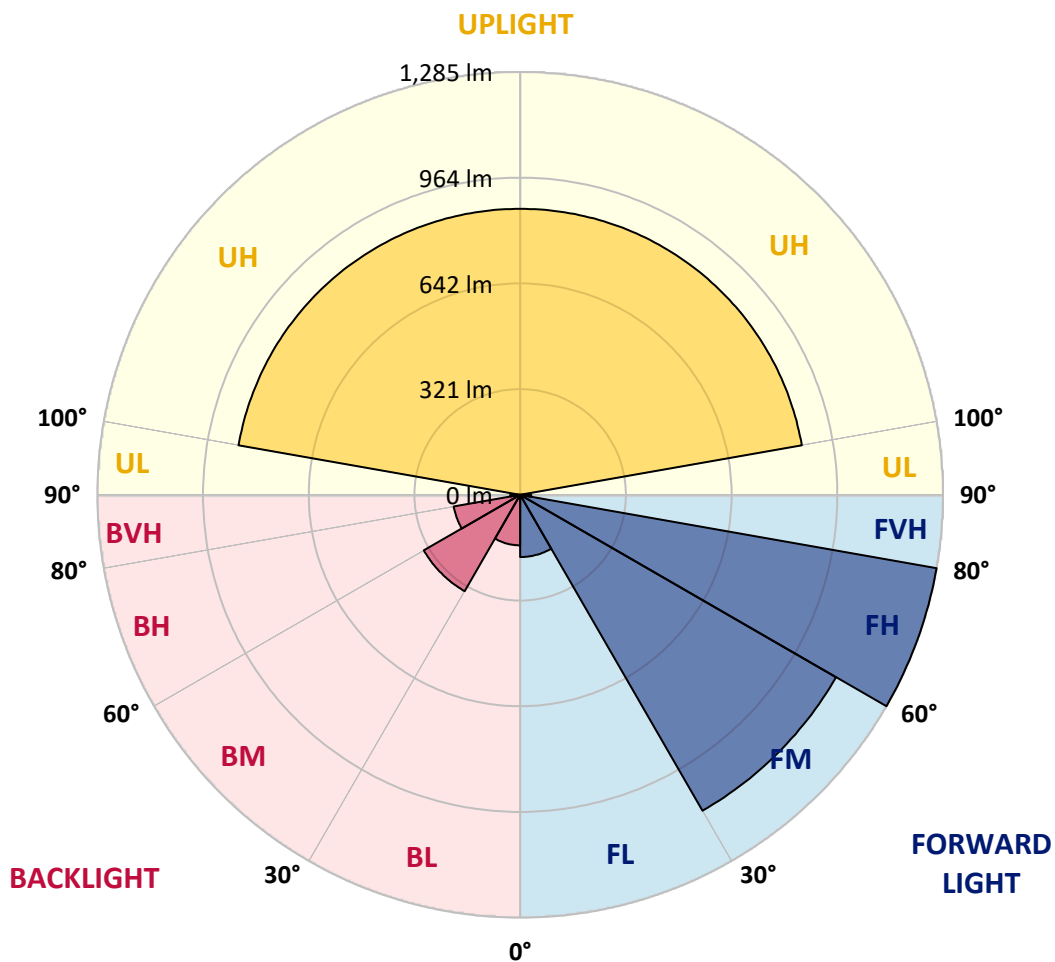
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	189.0	3.7			
FM (30°-60°)	1108.5	21.8			
FH (60°-80°)	1285.0	25.3			G1/1800
FVH (80°-90°)	33.4	0.7			G1/100
BL (0°-30°)	153.6	3.0	B1/500		
BM (30°-60°)	337.9	6.7	B1/1000		
BH (60°-80°)	204.9	4.0	B1/500		G1/500
BVH (80°-90°)	30.3	0.6			G1/100
UL (90°-100°)	11.3	0.2		U2/50	
UH (100°-180°)	869.1	17.1		U4/1000	

BUG Rating: B1-U5-G1

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	48°	55°	65°	75°	85°
0°	430.1	430.1	430.1	430.1	430.1	430.1	430.1	430.1	430.1	430.1	430.1
2.5°	452.9	452.4	452.4	448.6	447.1	444.7	442.7	439.8	436.9	433.5	429.2
5°	474.7	476.2	474.3	468.4	461.2	453.4	450.5	443.7	434.5	426.3	418.5
7.5°	495.6	496.1	490.7	481.1	469.9	457.8	453.9	444.7	434.5	423.3	412.2
10°	510.6	511.1	503.4	489.8	474.7	461.2	456.8	447.6	435.0	422.9	408.8
12.5°	519.4	519.8	508.2	494.1	476.2	462.6	458.7	449.0	436.0	420.4	404.9
15°	517.9	519.4	509.7	494.1	475.2	463.1	458.3	450.0	433.5	418.0	401.5
17.5°	508.2	510.1	502.4	485.4	470.4	460.7	455.3	447.1	431.1	414.6	396.7
20°	489.3	491.7	488.3	471.8	461.7	453.9	450.5	442.7	427.7	410.7	392.3
22.5°	468.0	470.4	469.4	455.8	451.0	447.1	443.7	437.9	424.8	407.8	390.4
25°	452.4	454.4	452.9	441.3	442.7	442.7	440.8	436.4	424.3	408.8	390.4
27.5°	478.1	478.1	465.5	441.8	439.3	443.7	442.7	440.3	430.6	413.6	394.2
30°	572.2	564.9	542.2	482.5	452.0	450.0	449.5	448.1	439.3	424.3	406.4
32.5°	677.4	670.2	643.0	568.3	504.8	463.1	458.7	459.2	456.8	442.7	424.8
35°	771.0	770.1	748.7	667.7	586.8	509.2	491.7	480.1	479.1	473.3	459.2
37.5°	846.7	846.7	848.6	756.5	675.5	582.4	552.8	516.0	516.0	512.6	503.8
40°	933.0	936.9	941.2	837.0	770.6	669.7	636.2	580.5	563.5	568.8	570.8
42.5°	1046.5	1051.3	1048.4	936.4	857.4	773.9	732.7	665.3	623.6	632.3	652.7
45°	1123.1	1125.0	1145.9	1040.2	966.5	862.2	827.3	734.7	693.4	711.4	747.3
47.5°	1209.9	1214.7	1218.1	1158.0	1094.5	962.1	898.1	802.1	775.4	802.6	859.3
50°	1294.8	1288.5	1297.7	1295.2	1215.7	1050.8	974.7	865.1	867.1	903.9	997.0
52.5°	1368.5	1347.1	1368.5	1395.1	1371.9	1142.0	1053.3	939.3	967.4	1012.5	1159.5
55°	1425.2	1373.8	1409.7	1485.3	1480.0	1222.5	1143.0	1038.2	1085.3	1146.9	1356.8
57.5°	1309.3	1315.6	1414.5	1546.0	1543.5	1304.0	1221.5	1161.9	1219.6	1288.5	1590.6
60°	1201.2	1229.3	1382.1	1555.7	1587.7	1392.7	1327.3	1302.5	1355.9	1439.8	1814.6
62.5°	1143.9	1170.6	1329.2	1537.7	1658.0	1524.1	1469.3	1450.4	1523.2	1617.2	2014.4
65°	1161.9	1178.4	1325.8	1564.9	1739.0	1723.0	1699.2	1667.7	1704.0	1792.3	2104.6
67.5°	1111.5	1138.6	1297.7	1612.9	1886.9	1965.4	1985.3	1951.4	1920.8	1908.7	1973.2
70°	827.3	853.5	1020.3	1414.5	2008.1	2386.3	2374.2	2260.7	2055.1	1883.5	1541.6
72°	525.7	518.4	645.9	1036.3	1785.0	2494.5	2551.7	2341.7	1994.0	1672.5	1047.0
72.5°	382.1	416.6	535.8	921.4	1695.8	2435.3	2518.7	2315.5	1914.0	1579.9	920.9
75°	93.1	98.4	128.5	330.2	993.1	1832.5	1937.3	1788.9	1397.1	937.9	408.3
77.5°	63.0	65.5	84.9	116.4	291.9	1045.0	1149.8	987.8	625.1	319.1	181.8
80°	47.0	48.5	61.6	82.4	121.2	356.4	420.4	334.1	155.7	177.0	129.5
82.5°	33.0	33.9	46.6	60.6	80.5	83.4	111.0	122.7	100.9	115.9	75.6
85°	22.8	22.8	33.9	41.7	50.9	41.2	44.1	61.6	68.4	68.9	46.1
87.5°	12.1	13.6	19.9	26.7	26.7	18.9	20.9	31.5	38.3	41.2	27.6
90°	9.4	9.4	15.2	18.2	14.3	11.8	11.4	13.3	18.2	22.1	15.7
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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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°	430.1	430.1	430.1	430.1	430.1	430.1	430.1	430.1	430.1	430.1	430.1
2.5°	428.2	425.3	421.4	419.5	418.5	416.6	414.6	413.6	413.6	411.7	412.2
5°	414.6	410.3	404.9	401.0	400.6	400.6	401.5	401.5	402.0	400.6	402.5
7.5°	407.8	403.0	395.2	390.9	387.5	387.0	388.9	392.8	394.7	393.3	395.2
10°	403.0	397.6	388.9	383.6	381.2	380.2	381.6	385.5	391.8	391.8	393.8
12.5°	398.1	391.3	382.6	378.7	376.8	377.3	379.2	382.1	388.9	391.3	392.3
15°	393.3	385.5	378.2	372.9	372.9	374.4	376.8	380.2	386.5	390.9	391.8
17.5°	388.4	380.7	374.4	370.0	370.0	371.9	374.4	378.7	383.1	389.4	389.4
20°	384.1	377.8	369.5	365.6	365.2	366.6	369.5	373.9	377.3	383.6	384.1
22.5°	381.6	373.9	366.1	360.3	357.9	356.9	359.8	364.2	367.6	373.9	374.9
25°	380.7	371.9	362.2	351.6	345.3	343.3	344.8	350.1	353.0	357.9	359.3
27.5°	384.1	375.8	360.8	341.4	328.3	323.0	324.4	327.8	328.8	334.1	336.5
30°	395.7	386.0	363.7	330.7	307.0	297.3	297.3	297.7	299.2	303.6	304.1
32.5°	414.6	405.4	372.4	319.6	285.1	271.6	268.2	265.7	265.7	265.3	265.7
35°	449.5	441.8	387.5	307.0	261.4	246.3	238.1	233.7	229.4	227.4	226.9
37.5°	500.0	493.2	408.8	292.4	240.5	225.5	215.3	206.6	201.7	201.2	203.7
40°	575.1	568.3	432.6	275.9	220.6	209.5	198.8	189.6	184.3	184.8	187.2
42.5°	667.7	646.9	458.3	253.6	204.6	198.8	187.2	179.4	174.1	171.2	170.7
45°	775.9	741.0	482.5	232.8	187.2	189.6	178.5	169.7	162.9	155.2	154.2
47.5°	910.7	835.0	503.8	211.9	168.3	179.9	169.2	161.0	150.8	141.6	140.1
50°	1051.3	943.2	522.3	189.6	151.3	169.2	160.0	148.9	134.8	126.6	126.6
52.5°	1213.8	1073.1	546.0	164.9	138.2	157.6	148.4	133.8	122.2	121.2	121.2
55°	1394.7	1209.4	562.5	145.5	128.0	145.0	140.6	136.3	132.4	133.4	133.8
57.5°	1583.8	1351.5	548.0	131.9	119.8	142.1	154.7	148.9	136.8	136.3	135.8
60°	1746.7	1462.1	467.5	123.2	113.5	146.9	165.8	148.9	136.8	143.1	143.5
62.5°	1853.4	1514.4	311.3	112.0	104.3	138.7	162.0	144.5	137.2	155.2	156.6
65°	1838.9	1455.8	178.9	104.3	98.4	127.5	156.6	139.2	128.0	138.2	135.3
67.5°	1622.1	1220.1	129.5	100.9	94.1	119.8	146.9	131.4	119.3	131.9	126.6
70°	1165.8	830.7	111.5	98.0	91.2	110.6	140.1	126.6	114.4	123.2	114.9
72°	782.2	505.3	102.3	95.5	88.3	104.7	135.3	122.7	110.1	114.9	105.7
72.5°	665.8	398.6	99.9	94.6	87.3	103.3	133.8	121.7	109.1	114.0	105.2
75°	248.8	156.1	88.7	87.3	80.5	96.0	128.0	117.4	104.3	102.8	98.9
77.5°	128.0	98.9	75.6	77.1	72.3	87.8	121.7	110.6	96.0	90.7	88.7
80°	93.1	71.8	61.1	65.5	61.6	79.0	113.0	100.4	87.3	81.5	79.0
82.5°	58.7	44.6	46.6	51.9	52.4	69.8	102.8	90.2	77.6	72.7	68.9
85°	28.1	26.7	33.0	38.3	42.2	59.2	94.1	80.0	67.9	58.2	58.7
87.5°	15.0	20.4	19.9	25.7	32.5	48.5	83.4	65.5	54.3	43.6	44.1
90°	10.4	12.3	14.8	19.2	20.1	27.9	61.8	45.3	43.4	20.5	18.6
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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CATALOG NUMBER: IST-AF-600-LED-E1-T4W-8030-ULG

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)