

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: P226854

Luminaire Tested: **IST-AF-450-LED-E1-SL2-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P226854
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35945)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: IST-AF-450-LED-E1-SL2-7030
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE
LIGHT SQUARE WITH ACCUED OPTICS-TYPE II W/SPILL CONTROL
Light Source: (16) 3000K CCT, 70 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2682.3 lumens
Efficiency: N/A
Efficacy: 106.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B1 - U1 - G1

Input Watts (W): 25.31
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



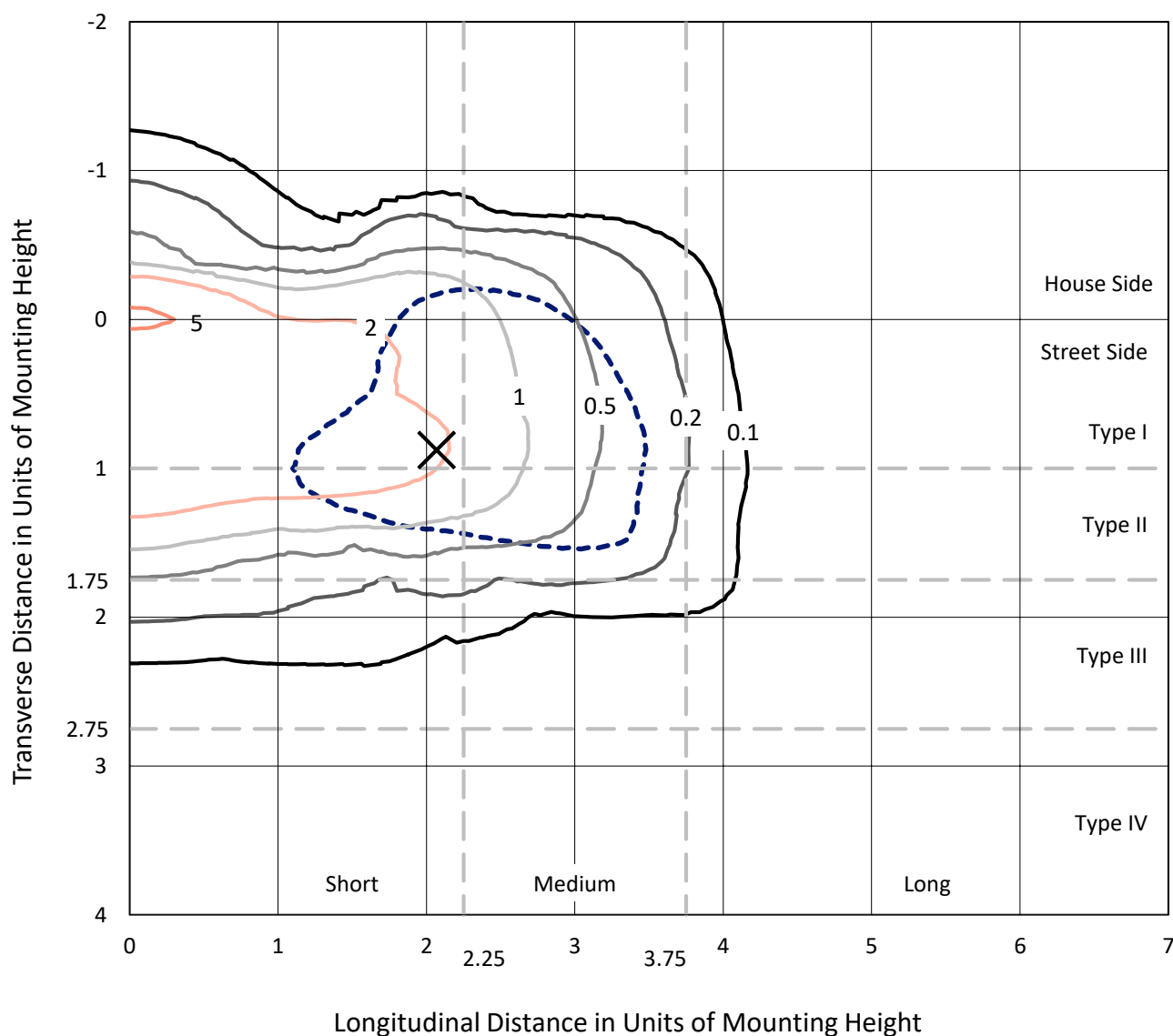
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

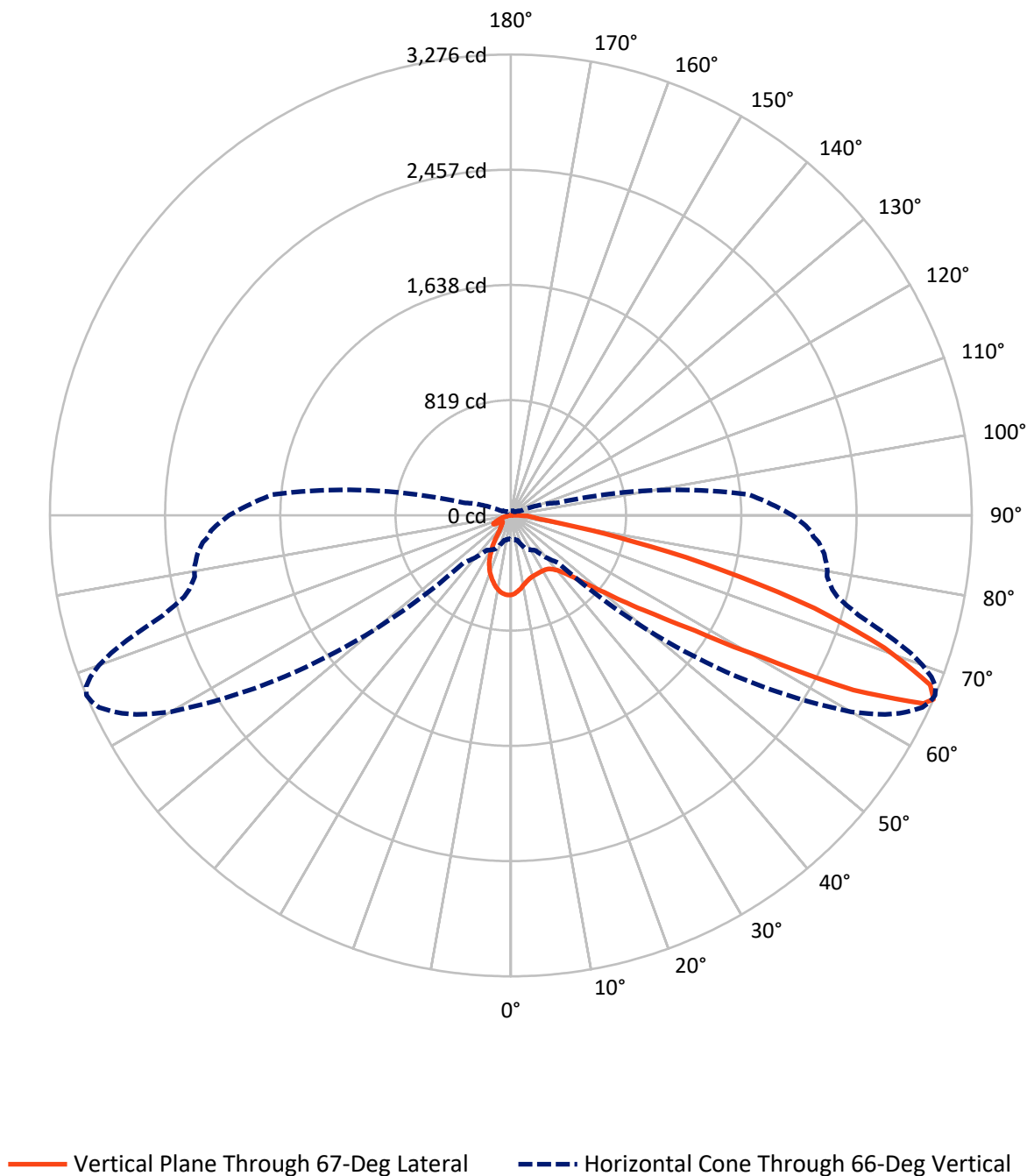


Based on 10 foot mounting height. Maximum calculated value = 5.6 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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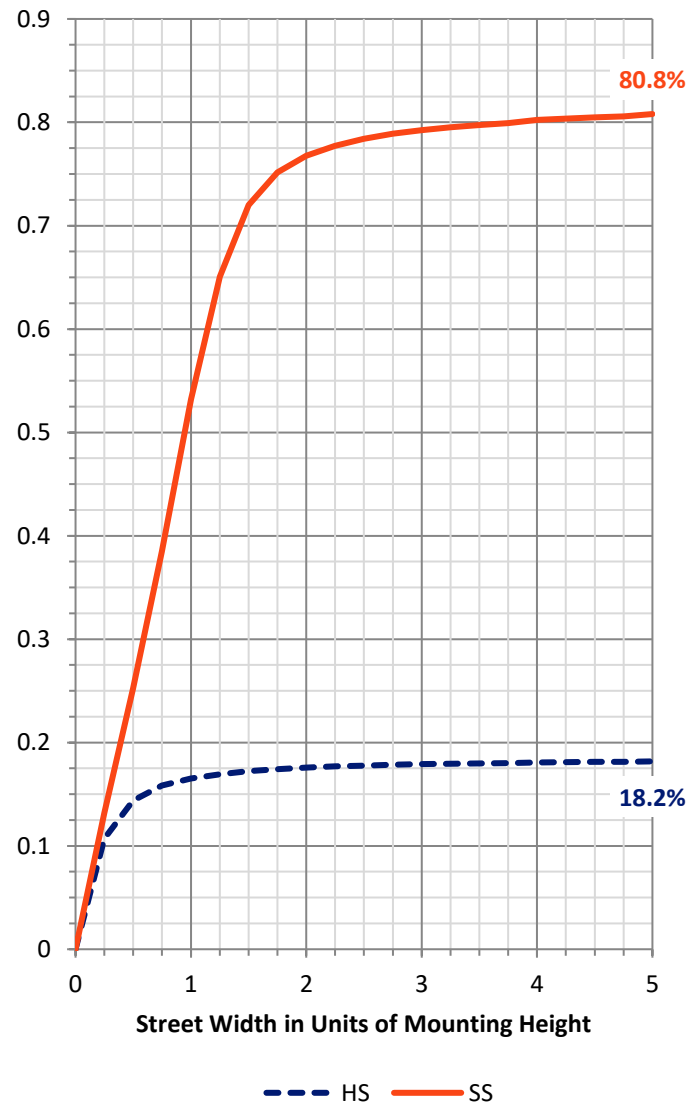
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	495.3	0.2	495.5
	% Fixture	18.5	0.0	18.5
Street Side	Lumens	2186.1	0.8	2186.9
	% Fixture	81.5	0.0	81.5
Total	Lumens	2681.4	1.0	2682.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.0	1.8
10°-20°	116.5	4.3
20°-30°	159.8	6.0
30°-40°	228.3	8.5
40°-50°	370.1	13.8
50°-60°	586.5	21.9
60°-70°	743.2	27.7
70°-80°	369.4	13.8
80°-90°	58.5	2.2
90°-100°	1.0	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°	2681.4	100.0
0°-180°	2682.3	100.0

Coefficient of Utilization



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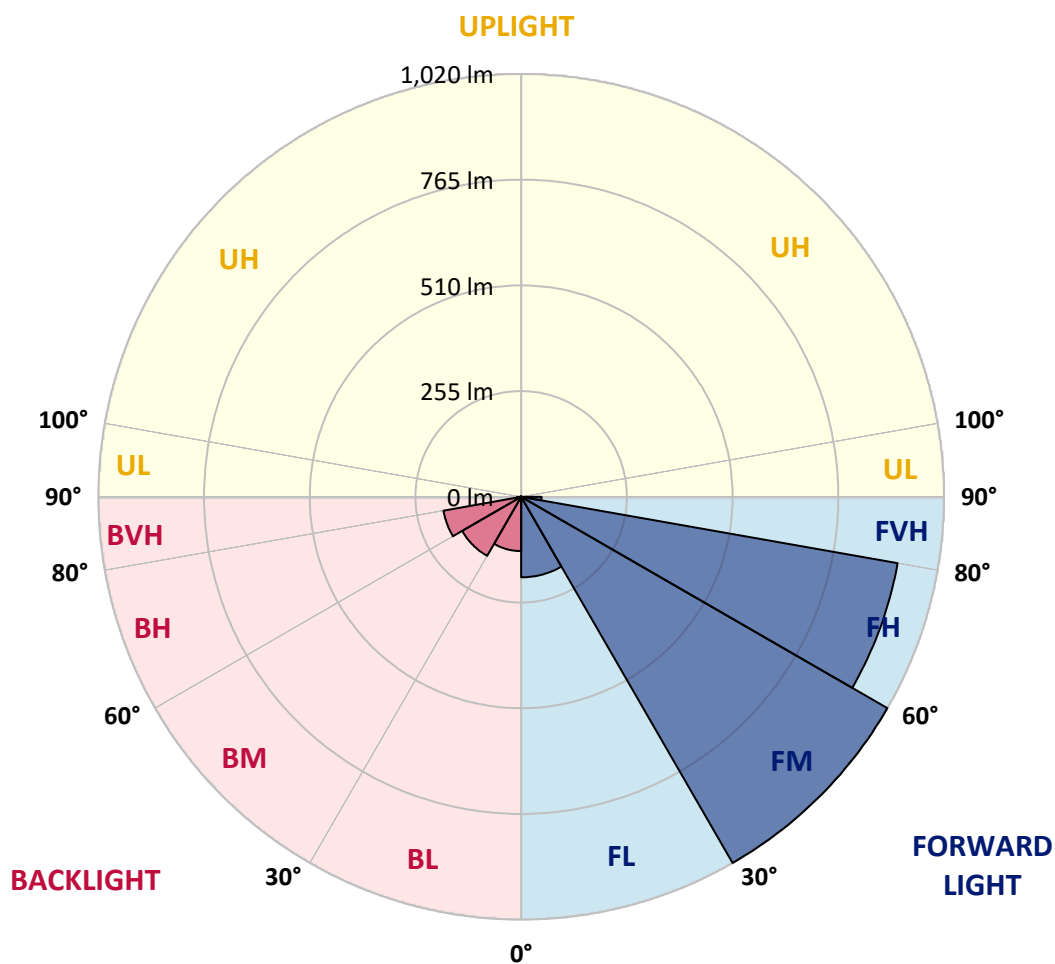
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	194.3	7.2			
FM	(30°-60°)	1020.4	38.0			
FH	(60°-80°)	922.3	34.4			G1/1800
FVH	(80°-90°)	49.1	1.8			G1/100
BL	(0°-30°)	131.0	4.9	B1/500		
BM	(30°-60°)	164.5	6.1	B0/220		
BH	(60°-80°)	190.3	7.1	B1/500		G1/500
BVH	(80°-90°)	9.4	0.4			G0/10
UL	(90°-100°)	1.0	0.0		U1/10	
UH	(100°-180°)	0.2	0.0		U1/10	

BUG Rating: B1-U1-G1

Type II Short



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	63°
0°	564.6	564.6	564.6	564.6	564.6	564.6	564.6	564.6	564.6	564.6	564.6
2.5°	524.7	525.9	532.8	536.4	541.6	543.2	549.3	551.7	553.7	553.3	553.3
5°	477.5	481.2	484.4	491.7	499.3	508.6	520.3	529.1	530.7	532.8	534.0
7.5°	441.7	444.1	449.7	455.0	464.7	477.5	494.1	505.4	507.8	508.6	511.4
10°	416.3	417.9	422.7	429.6	440.9	453.4	470.7	482.4	486.0	487.6	490.0
12.5°	396.5	399.0	403.4	410.7	422.7	435.6	453.8	465.5	467.9	469.9	473.5
15°	384.1	385.7	389.7	397.8	408.6	421.5	439.3	453.4	455.0	457.0	460.2
17.5°	381.6	382.8	385.3	391.3	399.8	412.3	430.4	442.1	444.9	447.7	451.0
20°	391.3	392.1	392.9	393.7	398.6	406.6	424.4	436.8	439.3	441.7	445.7
22.5°	412.3	413.5	411.5	408.6	405.0	406.6	421.5	434.4	436.0	438.5	441.7
25°	448.5	447.3	441.3	436.8	424.0	413.5	422.3	433.2	435.2	437.7	441.3
27.5°	491.3	489.6	486.0	473.9	452.6	431.2	427.2	435.2	436.4	438.5	441.7
30°	537.2	537.6	534.4	521.1	493.7	457.8	438.1	440.1	440.9	442.5	444.5
32.5°	578.7	584.7	584.3	583.5	544.4	493.7	459.0	451.0	449.7	451.0	451.8
35°	626.7	627.9	639.2	644.8	613.0	546.1	489.6	471.9	467.1	467.5	466.7
37.5°	678.2	679.9	699.2	708.9	684.3	605.7	530.3	502.9	498.5	494.1	490.8
40°	753.2	759.6	769.7	780.6	768.5	685.9	583.9	546.9	535.6	534.8	528.3
42.5°	865.2	863.2	858.4	867.2	852.7	775.8	648.8	608.9	600.5	589.2	580.3
45°	975.2	979.7	958.7	962.8	963.6	879.7	742.7	686.7	682.3	669.0	659.3
47.5°	1049.4	1044.6	1016.4	1036.9	1087.3	1001.0	851.5	792.7	783.4	776.6	770.5
50°	1053.4	1049.4	1031.3	1067.5	1175.1	1216.6	1003.1	934.5	921.2	909.2	905.5
52.5°	955.1	949.5	955.5	1029.3	1207.0	1397.2	1217.0	1110.7	1099.8	1089.7	1075.6
55°	779.8	786.2	814.9	920.8	1158.2	1525.3	1638.2	1382.7	1335.9	1335.5	1300.9
57.5°	582.3	575.9	597.2	696.8	1034.9	1570.9	2025.1	1961.8	1857.4	1786.9	1701.9
60°	392.9	394.5	414.3	465.5	720.2	1521.3	2284.2	2504.6	2467.9	2453.0	2430.1
62.5°	272.4	274.8	293.0	340.9	421.1	1223.9	2359.9	2808.9	2874.6	2929.0	2915.7
65°	190.6	191.0	209.2	283.3	315.5	628.7	2192.7	2849.2	2947.1	3040.6	3124.4
66°	168.0	168.5	183.4	263.6	302.6	474.3	2047.6	2793.2	2904.8	3013.6	3100.2
67.5°	143.9	146.3	158.0	224.1	290.2	365.9	1691.4	2625.9	2742.8	2862.5	2976.9
70°	98.7	99.5	110.0	181.8	271.6	321.2	964.0	2050.0	2211.6	2422.0	2543.7
72.5°	70.5	69.7	70.9	112.4	278.9	319.2	506.6	1349.2	1575.3	1759.9	1891.7
75°	62.9	60.9	55.6	69.7	203.5	348.6	339.3	794.3	966.4	1134.4	1269.4
77.5°	56.0	52.8	50.0	53.6	100.7	328.4	304.7	455.0	542.8	668.2	772.1
80°	42.7	40.7	42.3	46.3	60.4	302.2	302.6	302.6	326.4	367.5	408.6
82.5°	28.2	25.8	29.4	38.3	45.5	227.7	312.7	267.2	262.8	261.1	264.0
85°	17.7	15.3	20.6	28.6	35.1	118.9	320.8	282.1	261.5	241.8	222.1
87.5°	6.4	7.3	10.5	16.5	23.0	51.6	281.3	248.6	234.5	210.0	187.0
90°	1.6	1.2	2.0	4.8	5.2	9.7	43.1	68.9	41.1	20.6	16.5
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	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):

	0°	5°	15°	25°	35°	45°	55°	60°	61°	62°	63°
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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):

	64°	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°
0°	564.6	564.6	564.6	564.6	564.6	564.6	564.6	564.6	564.6	564.6	564.6
2.5°	553.7	555.7	556.5	555.7	556.1	558.6	557.7	559.0	559.0	559.8	559.8
5°	535.6	537.2	540.4	540.0	543.2	544.4	545.7	547.3	549.3	550.5	552.9
7.5°	514.2	517.4	520.3	521.9	523.9	527.9	529.1	532.8	536.0	539.2	541.6
10°	493.7	498.1	501.3	502.5	507.0	509.0	513.4	516.2	520.3	524.3	527.9
12.5°	476.3	480.4	482.0	486.0	490.0	494.1	496.1	501.3	505.4	510.6	515.4
15°	463.4	467.5	470.7	473.5	477.5	481.6	484.8	490.0	494.9	500.1	504.6
17.5°	455.4	457.8	461.8	464.3	469.1	473.9	477.5	483.6	488.8	493.3	499.3
20°	449.3	452.2	455.8	459.4	463.8	469.9	473.1	479.6	485.2	490.4	496.1
22.5°	446.1	448.9	452.6	456.2	461.0	465.9	471.1	476.7	482.8	488.4	494.1
25°	444.9	447.3	450.5	454.2	459.4	464.7	469.1	475.5	480.8	486.8	493.7
27.5°	445.3	446.9	450.5	453.8	459.0	463.8	468.3	474.7	480.8	486.4	493.3
30°	446.9	448.1	451.8	454.6	459.0	463.8	467.9	474.7	480.0	486.0	493.3
32.5°	452.6	454.2	455.8	457.8	461.8	465.5	470.3	476.3	481.2	487.2	493.3
35°	465.9	464.7	465.9	466.7	469.5	473.1	476.7	482.0	486.4	491.7	498.1
37.5°	486.8	484.4	485.2	484.8	484.8	487.2	490.8	494.5	498.1	503.3	509.8
40°	525.5	519.5	517.8	513.4	512.2	514.2	516.6	517.0	521.5	528.3	531.1
42.5°	575.5	567.4	568.6	561.4	559.4	556.9	560.2	558.1	561.0	565.4	571.4
45°	654.5	646.8	638.7	627.1	629.5	620.6	618.2	619.0	618.6	620.2	627.5
47.5°	748.8	738.7	733.5	729.0	720.6	715.3	708.5	698.4	700.8	704.0	710.5
50°	886.6	883.4	873.3	858.8	856.8	849.1	847.1	838.2	835.0	834.6	834.2
52.5°	1070.8	1049.8	1045.8	1032.1	1021.6	1014.3	1011.9	999.4	986.9	994.2	993.4
55°	1295.2	1277.9	1255.7	1243.6	1235.2	1217.9	1213.4	1197.7	1190.4	1186.4	1176.3
57.5°	1672.4	1611.6	1566.0	1543.5	1511.6	1479.4	1468.1	1435.9	1410.9	1393.2	1394.4
60°	2330.1	2221.7	2094.0	2036.7	1904.2	1884.8	1793.7	1771.6	1716.8	1680.5	1659.5
62.5°	2906.4	2877.0	2815.7	2732.3	2599.3	2446.2	2377.3	2240.3	2133.1	2086.3	2021.4
65°	3181.7	3223.2	3240.1	3224.4	3171.2	3077.7	2995.5	2861.7	2681.9	2580.4	2454.2
66°	3167.5	3229.2	3260.2	3276.4	3257.0	3201.8	3115.6	3005.5	2866.5	2711.8	2570.3
67.5°	3064.4	3124.4	3167.5	3216.7	3216.7	3199.4	3164.3	3091.0	2992.6	2857.6	2730.7
70°	2642.8	2724.3	2800.4	2815.3	2857.2	2844.3	2872.2	2825.4	2802.0	2745.6	2677.5
72.5°	2058.9	2127.0	2192.3	2257.6	2246.7	2232.6	2229.8	2239.4	2191.9	2208.8	2191.1
75°	1369.4	1486.7	1553.5	1547.1	1551.5	1555.2	1525.3	1458.8	1510.4	1445.1	1466.9
77.5°	832.2	886.6	904.7	884.6	858.4	824.5	770.1	738.3	692.7	696.4	666.2
80°	436.4	443.3	428.8	388.1	365.9	345.8	283.7	255.9	230.1	220.4	198.7
82.5°	250.3	233.7	216.0	202.3	176.1	158.4	134.2	118.9	102.4	87.9	82.6
85°	202.7	180.5	164.0	148.7	131.0	115.3	95.1	79.4	67.3	58.4	56.4
87.5°	167.2	151.9	135.0	120.5	103.2	87.0	67.3	52.4	41.5	33.4	31.0
90°	14.9	20.1	14.5	8.1	12.1	6.4	3.6	4.0	3.2	3.2	3.6
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	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: IST-AF-450-LED-E1-SL2-7030

CANDELA DISTRIBUTION (continued):

	64°	65°	66°	67°	68°	69°	70°	71°	72°	73°	74°
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

REPORT NUMBER: P226854

CATALOG NUMBER: IST-AF-450-LED-E1-SL2-7030

CANDELA DISTRIBUTION (continued):

	75°	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°
0°	564.6	564.6	564.6	564.6	564.6	564.6	564.6	564.6	564.6	564.6	564.6
2.5°	561.0	561.0	561.8	562.6	563.0	563.0	563.0	563.8	564.2	563.0	564.2
5°	554.1	556.1	557.7	559.0	559.4	560.6	561.8	562.6	563.8	563.8	564.6
7.5°	544.9	548.5	550.5	552.5	554.5	556.5	559.0	560.6	561.4	563.0	564.2
10°	533.2	537.6	541.6	544.9	547.7	551.7	554.9	557.3	561.0	561.4	564.2
12.5°	520.7	527.1	530.3	536.4	540.4	546.5	549.7	553.3	557.3	559.4	562.6
15°	511.8	517.4	523.5	529.1	535.6	542.8	546.9	551.7	557.3	561.8	565.8
17.5°	505.0	512.6	519.5	526.7	534.8	542.4	548.5	553.7	561.0	563.4	567.4
20°	502.9	511.4	518.3	525.9	534.4	544.4	551.7	557.3	564.6	568.6	572.3
22.5°	502.1	510.2	518.3	527.5	536.8	547.3	554.9	562.2	569.4	573.1	575.9
25°	501.3	509.8	518.7	529.1	539.2	550.1	559.0	565.8	572.7	576.3	578.7
27.5°	501.3	510.2	519.9	530.3	541.2	553.3	561.8	568.2	574.3	577.5	578.3
30°	500.9	510.2	519.5	531.1	542.8	555.3	564.6	570.6	575.9	577.9	577.1
32.5°	501.7	511.4	521.5	533.2	545.3	557.3	567.0	573.9	576.7	576.3	575.9
35°	505.8	514.6	526.3	538.0	550.5	561.8	571.0	575.9	578.3	577.5	575.5
37.5°	516.6	525.5	537.2	550.1	559.8	572.7	581.1	584.7	585.1	582.7	577.9
40°	539.2	548.1	558.6	572.7	584.3	593.2	601.3	605.3	602.9	598.4	593.2
42.5°	575.1	586.4	598.9	610.1	623.8	635.9	637.9	640.4	636.3	627.9	621.4
45°	632.7	639.6	655.7	664.1	681.9	687.9	692.3	693.6	684.7	677.8	666.6
47.5°	715.7	729.0	740.3	748.4	761.3	769.3	778.2	774.2	767.3	755.6	740.7
50°	846.3	854.8	869.3	883.8	897.5	903.1	903.1	899.1	894.7	872.1	853.9
52.5°	1006.7	1007.5	1028.4	1045.8	1057.5	1049.0	1059.1	1049.0	1046.2	1030.5	1015.5
55°	1192.5	1184.8	1210.2	1225.5	1236.0	1246.1	1244.0	1242.8	1232.4	1214.6	1196.5
57.5°	1369.0	1391.1	1403.2	1425.8	1431.0	1437.9	1435.1	1431.0	1425.0	1414.9	1406.9
60°	1623.7	1638.6	1649.5	1653.9	1668.8	1670.8	1680.9	1664.4	1668.4	1656.7	1631.3
62.5°	1970.2	1954.1	1962.6	1962.6	1958.2	1942.4	1950.9	1957.4	1946.5	1936.8	1932.8
65°	2358.3	2306.3	2256.4	2247.9	2224.9	2219.7	2213.3	2197.1	2190.3	2173.4	2159.7
66°	2474.4	2393.8	2346.6	2317.6	2289.8	2283.8	2274.9	2258.0	2244.3	2220.5	2197.5
67.5°	2604.6	2500.6	2429.7	2388.6	2354.3	2331.7	2314.0	2289.8	2268.1	2232.6	2195.9
70°	2596.1	2510.3	2424.8	2362.4	2310.8	2264.4	2237.0	2185.0	2140.7	2089.9	2048.0
72.5°	2181.4	2166.1	2116.5	2081.5	2018.2	1993.6	1921.1	1888.0	1826.8	1761.1	1740.9
75°	1516.5	1456.4	1431.0	1416.9	1389.1	1312.6	1262.6	1273.5	1201.7	1137.7	1101.0
77.5°	662.9	675.0	604.9	573.5	549.3	507.8	469.1	442.5	427.2	417.1	371.6
80°	183.4	160.0	158.0	146.7	144.3	128.6	130.6	119.3	111.6	110.0	106.4
82.5°	80.2	78.6	76.2	75.0	73.7	72.1	70.1	69.7	67.3	65.3	65.7
85°	53.2	52.8	51.6	50.4	48.4	45.5	43.5	41.9	42.3	40.3	39.9
87.5°	31.0	30.2	29.8	28.2	27.8	25.4	25.8	23.8	23.4	23.0	21.8
90°	4.4	4.8	6.0	5.6	4.0	7.7	6.4	5.6	6.0	4.8	4.8
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	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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REPORT N
CATALOG

CANDELA DISTRIBUTION (continued):

CANDELA

	75°	76°	77°	78°	79°	80°	81°	82°	83°	84°	85°	
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5°
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5°
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5°
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10°
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5°
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15°
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.5°
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20°
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.5°
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25°
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.5°
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30°
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.5°
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35°
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.5°
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40°
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.5°
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45°
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	47.5°
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50°
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	52.5°
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55°
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	57.5°
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	60°
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	62.5°
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	65°
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	66°
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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°



NUMBER: P226854
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REPORT NUMBER: P
CATALOG NUMBER:

DISTRIBUTION (continued):

CANDELA DISTRIBU'

86°	87°	88°	89°	90°	95°	105°	115°	125°	135°	145°		86°
564.6	564.6	564.6	564.6	564.6	564.6	564.6	564.6	564.6	564.6	564.6	110°	0.0
565.4	566.2	566.6	566.2	567.0	566.6	567.0	566.6	564.6	564.2	563.8	112.5°	0.0
566.2	567.8	568.2	568.6	567.8	568.6	567.0	560.6	553.3	545.3	538.8	115°	0.0
567.0	569.0	570.2	570.2	570.6	569.8	563.8	549.7	532.8	515.8	502.9	117.5°	0.0
566.6	569.4	570.6	571.0	571.0	569.4	554.9	532.4	506.6	480.8	454.6	120°	0.0
565.4	567.8	569.8	569.8	570.2	564.6	542.0	509.8	473.1	434.4	399.4	122.5°	0.0
567.8	570.2	570.2	570.2	569.8	560.2	528.3	481.6	432.4	380.0	328.0	125°	0.0
571.4	572.7	571.9	571.9	570.2	555.7	513.0	453.8	389.3	320.0	247.4	127.5°	0.0
574.7	575.5	575.1	573.1	571.0	550.9	497.3	424.4	337.7	247.4	175.3	130°	0.0
577.9	578.7	576.7	573.5	570.6	544.4	478.4	386.9	279.3	169.3	116.1	132.5°	0.0
578.3	579.1	575.5	571.0	567.0	534.8	455.4	347.0	215.2	109.6	90.7	135°	0.0
577.9	577.1	571.0	565.4	561.0	523.1	430.0	297.4	143.5	82.6	79.0	137.5°	0.0
575.1	571.4	566.6	560.2	553.7	510.2	404.6	242.2	90.7	71.7	71.7	140°	0.0
571.0	567.4	561.4	552.9	545.7	497.7	375.6	185.8	72.5	66.1	66.9	142.5°	0.0
569.4	565.4	556.5	547.7	538.4	486.4	345.0	124.9	65.3	62.5	62.9	145°	0.0
572.7	565.8	556.9	546.9	536.0	476.7	313.1	87.0	61.7	58.4	59.2	147.5°	0.0
583.5	577.1	566.6	553.7	542.0	471.1	279.3	72.1	58.0	55.2	55.2	150°	0.0
609.7	601.3	587.2	571.9	557.7	474.7	249.1	65.7	55.2	52.4	52.4	152.5°	0.0
652.0	642.0	625.4	608.1	589.6	492.5	214.8	63.3	53.2	49.2	48.4	155°	0.0
724.6	711.3	689.5	669.0	646.8	523.1	180.1	61.7	50.8	47.2	45.5	157.5°	0.0
838.6	818.9	793.1	766.1	739.1	579.1	152.7	60.0	49.2	45.5	43.9	160°	0.0
985.3	972.0	939.8	904.3	872.1	690.7	137.0	58.8	48.0	43.5	42.3	162.5°	0.0
1172.3	1150.6	1125.2	1093.3	1055.0	835.4	135.4	58.4	46.7	41.9	41.1	165°	0.0
1369.8	1361.3	1318.2	1298.5	1256.9	1028.0	164.8	59.2	45.9	40.7	39.5	167.5°	0.0
1595.1	1598.3	1558.0	1536.2	1502.0	1272.3	262.4	61.7	45.9	39.5	38.3	170°	0.0
1889.6	1894.9	1847.3	1821.5	1792.5	1545.9	412.3	65.7	47.2	38.3	37.1	172.5°	0.0
2131.0	2102.8	2072.2	2027.1	1990.4	1698.6	397.0	72.9	48.8	37.1	35.9	175°	0.0
2156.0	2135.9	2097.2	2048.4	2003.7	1699.4	346.6	75.4	49.2	36.7	35.5	177.5°	0.0
2152.8	2116.9	2073.0	2031.9	1988.0	1655.9	268.0	78.6	50.4	35.9	34.7	180°	0.0
2003.7	1953.3	1910.6	1853.8	1807.8	1481.8	164.8	78.2	48.8	33.4	32.6		
1652.3	1626.5	1575.7	1530.2	1482.2	1199.3	112.8	69.7	43.1	30.2	30.6		
1068.7	1039.3	987.7	962.0	935.0	767.3	87.9	56.8	36.7	27.0	28.2		
356.7	345.0	326.0	336.5	320.8	299.0	64.5	43.1	29.4	23.4	25.0		
106.8	104.4	108.0	101.6	107.6	91.1	42.3	30.2	22.6	20.1	22.2		
63.3	62.5	62.5	62.5	60.9	56.8	27.8	21.0	17.3	16.9	18.5		
38.7	37.9	38.3	37.9	38.7	34.7	18.9	14.5	12.9	12.5	14.9		
22.2	22.2	22.6	21.8	22.2	21.4	13.3	9.3	8.5	8.1	10.9		
5.2	5.2	4.0	3.6	4.0	5.6	3.6	2.8	2.4	2.0	3.6		
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		

'226854
IST-AF-450-LED-E1-SL2-7030

REPORT NUMBER: P226854
CATALOG NUMBER: IST-AF-450

TION (continued):

CANDELA DISTRIBUTION (con

87°	88°	89°	90°	95°	105°	115°	125°	135°	145°		155°	165°
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0°	564.6	564.6
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5°	560.6	557.7
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5°	528.7	521.1
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5°	482.8	473.9
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10°	430.4	417.1
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5°	363.5	337.3
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15°	286.1	251.1
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.5°	197.1	168.9
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20°	138.2	127.7
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.5°	106.8	107.2
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25°	88.7	92.7
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.5°	78.2	82.2
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30°	71.7	75.4
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.5°	67.3	68.9
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35°	62.1	62.9
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	37.5°	57.6	57.6
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40°	53.6	53.2
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	42.5°	50.0	49.6
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	45°	46.3	46.7
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	47.5°	44.3	44.7
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50°	42.3	42.7
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	52.5°	40.7	40.7
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55°	39.1	38.7
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	57.5°	37.9	37.1
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	60°	36.7	35.9
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	62.5°	35.9	34.7
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	65°	35.1	34.3
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	66°	34.7	33.9
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.5°	34.3	33.4
										70°	32.6	31.8
										72.5°	30.2	29.8
										75°	27.8	27.0
										77.5°	24.6	24.2
										80°	21.0	20.6
										82.5°	17.7	16.9
										85°	14.1	13.3
										87.5°	9.7	8.9
										90°	2.4	2.8
										92.5°	0.0	0.0
										95°	0.0	0.0
										97.5°	0.0	0.0
										100°	0.0	0.0
										102.5°	0.0	0.0
										105°	0.0	0.0
										107.5°	0.0	0.0

0-LED-E1-SL2-7030

REPORT NUMBER: P226854

CATALOG NUMBER: IST-AF-450-LED-E1-S

tinued):

175°	180°
564.6	564.6
555.3	559.0
518.7	517.4
466.7	467.1
403.8	404.6
322.4	317.6
230.9	232.9
160.8	160.4
129.0	129.8
110.4	110.4
98.3	98.3
86.6	87.0
78.6	79.4
71.3	71.7
64.1	64.5
58.0	58.0
54.0	54.4
51.2	51.2
48.4	48.4
45.9	46.7
43.5	43.9
41.1	41.5
38.7	38.7
36.7	36.7
35.1	34.7
33.9	33.0
32.6	32.2
32.2	31.8
31.8	31.4
31.0	30.6
29.8	29.4
27.4	26.6
25.0	24.2
23.0	21.8
19.3	18.5
14.1	13.3
8.5	8.5
2.0	2.0
0.0	0.0
0.0	0.0
0.0	0.0
0.0	0.0
0.0	0.0
0.0	0.0
0.0	0.0
0.0	0.0

CANDELA DISTRIBUTION (continued):

	155°	165°	175°
110°	0.0	0.0	0.0
112.5°	0.0	0.0	0.0
115°	0.0	0.0	0.0
117.5°	0.0	0.0	0.0
120°	0.0	0.0	0.0
122.5°	0.0	0.0	0.0
125°	0.0	0.0	0.0
127.5°	0.0	0.0	0.0
130°	0.0	0.0	0.0
132.5°	0.0	0.0	0.0
135°	0.0	0.0	0.0
137.5°	0.0	0.0	0.0
140°	0.0	0.0	0.0
142.5°	0.0	0.0	0.0
145°	0.0	0.0	0.0
147.5°	0.0	0.0	0.0
150°	0.0	0.0	0.0
152.5°	0.0	0.0	0.0
155°	0.0	0.0	0.0
157.5°	0.0	0.0	0.0
160°	0.0	0.0	0.0
162.5°	0.0	0.0	0.0
165°	0.0	0.0	0.0
167.5°	0.0	0.0	0.0
170°	0.0	0.0	0.0
172.5°	0.0	0.0	0.0
175°	0.0	0.0	0.0
177.5°	0.0	0.0	0.0
180°	0.0	0.0	0.0

[illegible]

FIELD PERFORMANCE MAY DIFFER FROM LABORATORY PERFORMANCE