

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: P271700

Luminaire Tested: **IST-AF-350-LED-E1-T4W-7027-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P271700
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-350-LED-E1-T4W-7027-ULG
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE WITH UPLIGHT
LIGHT SQUARE WITH ACCULED OPTICS-TYPE IV WIDE, WITH UPLIGHT GLOW
Light Source: (16) 2700K CCT, 70 CRI LEDs and (1) UPLIGHT LED
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3877.3 lumens
Efficiency: N/A
Efficacy: 105.4 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): 36.79
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

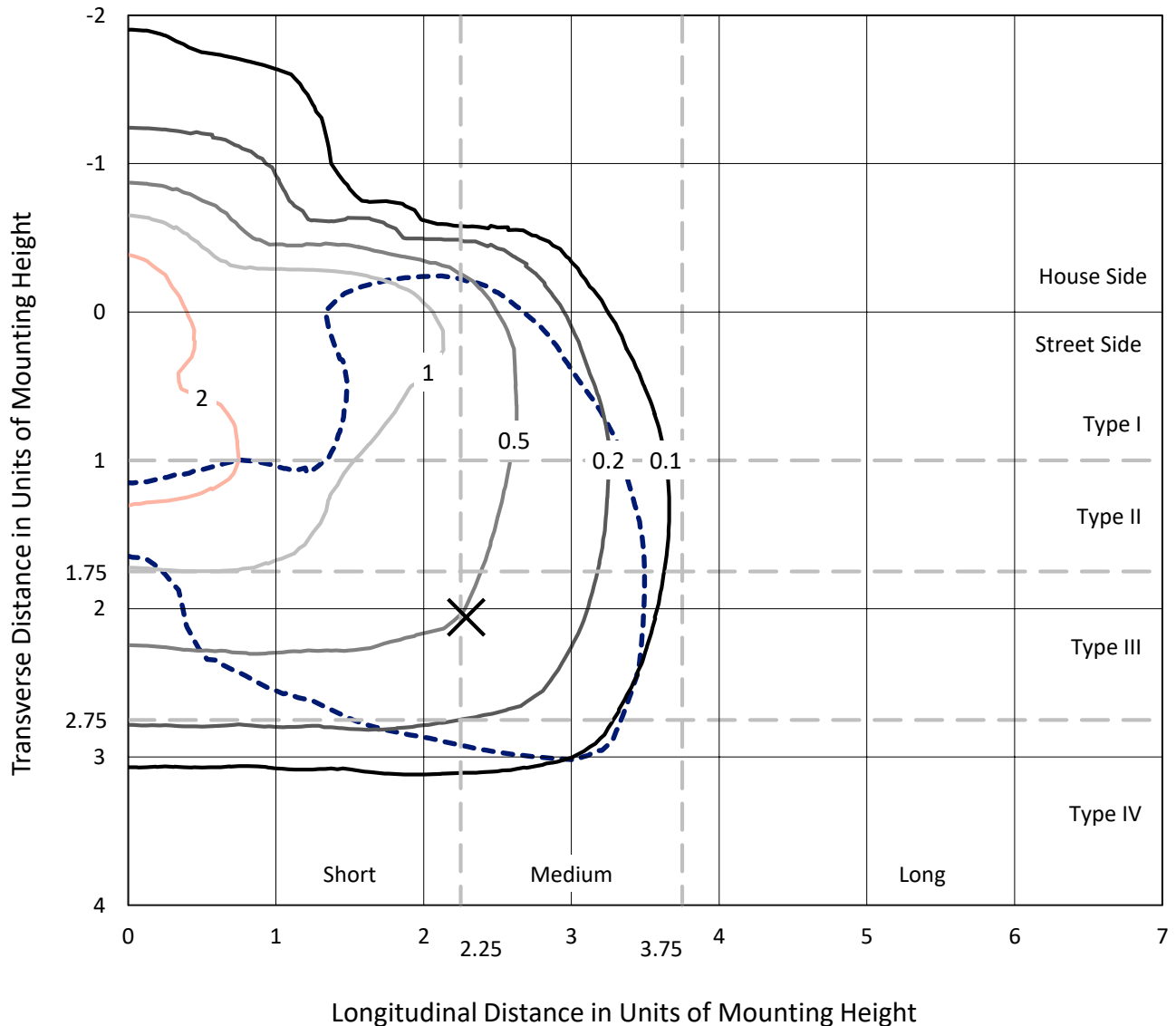


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Iso-Footcandle Lines of Horizontal Illumination

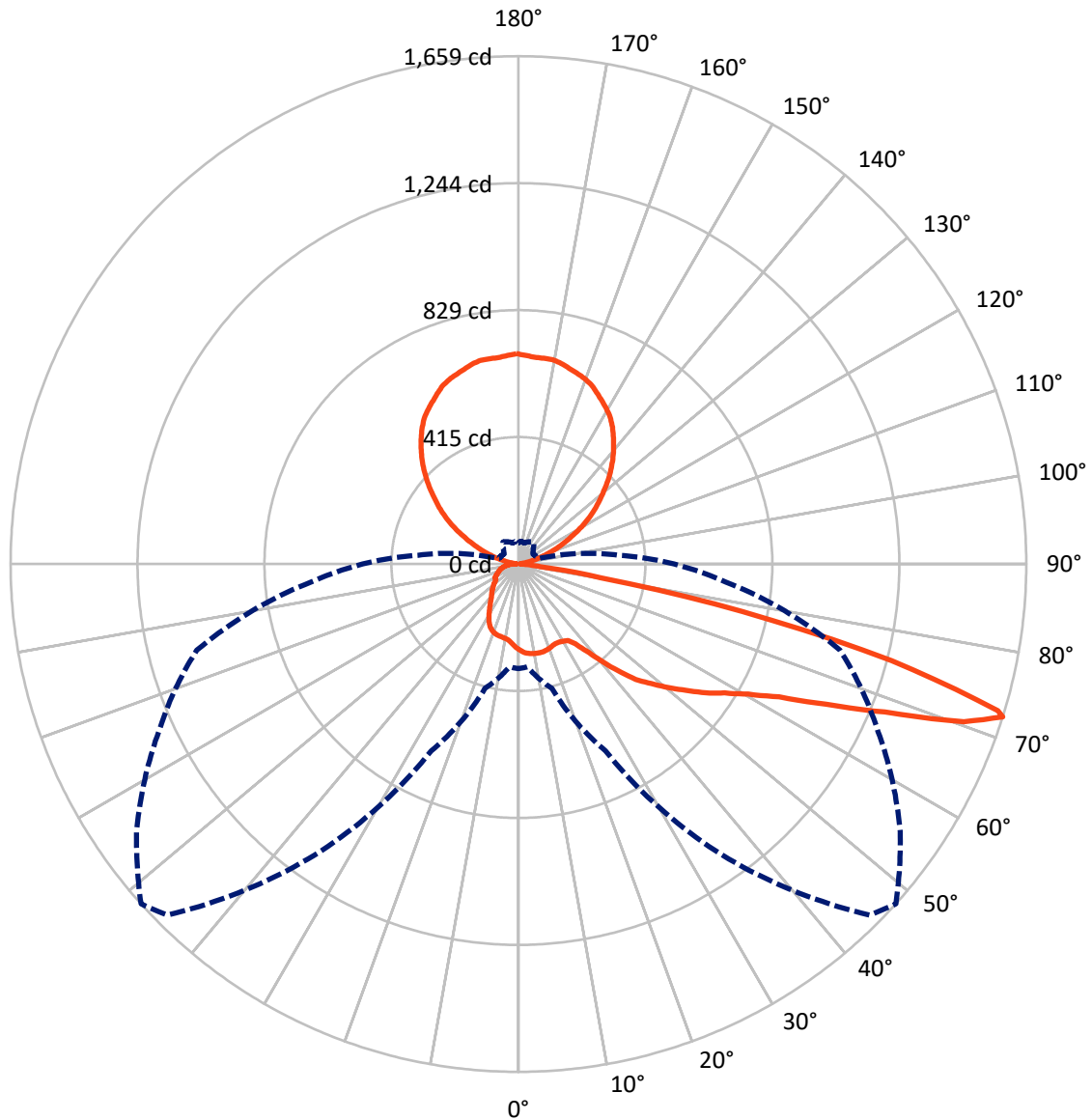
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.1 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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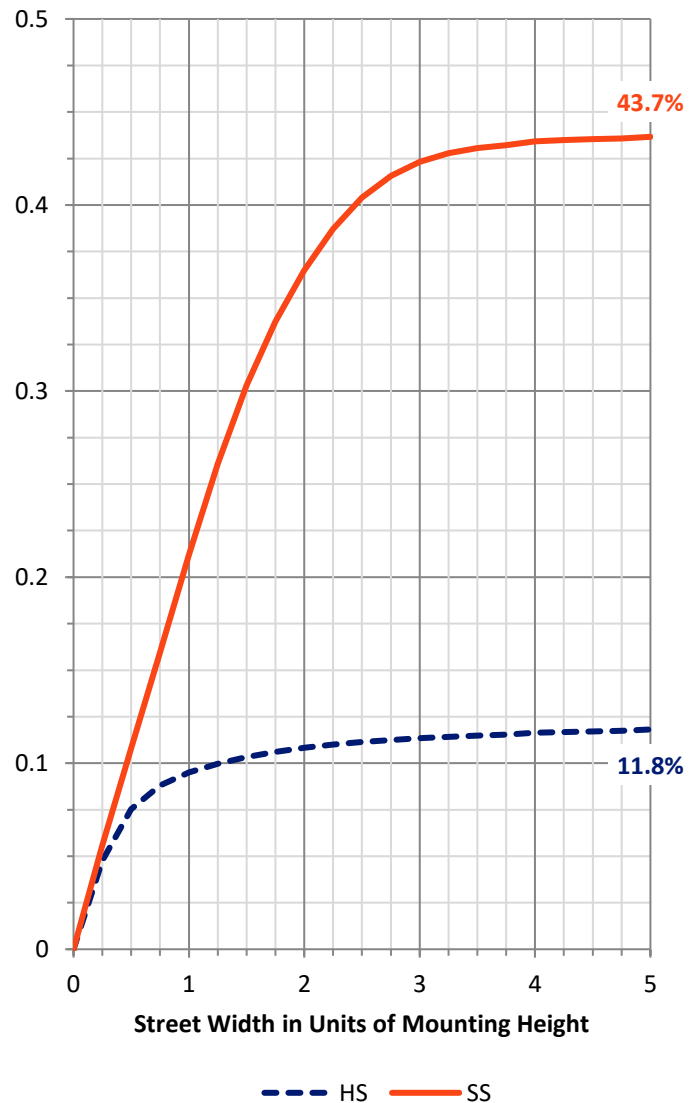
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	472.5	852.5	1325.0
	% Fixture	12.2	22.0	34.2
Street Side	Lumens	1700.5	851.8	2552.3
	% Fixture	43.9	22.0	65.8
Total	Lumens	2173.0	1704.3	3877.3
	% Fixture	56.0	44.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.4	0.7
10°-20°	77.2	2.0
20°-30°	119.1	3.1
30°-40°	178.5	4.6
40°-50°	297.2	7.7
50°-60°	464.5	12.0
60°-70°	613.5	15.8
70°-80°	354.9	9.2
80°-90°	41.7	1.1
90°-100°	10.4	0.3
100°-110°	56.3	1.5
110°-120°	163.1	4.2
120°-130°	268.1	6.9
130°-140°	330.6	8.5
140°-150°	338.2	8.7
150°-160°	284.9	7.3
160°-170°	187.6	4.8
170°-180°	65.0	1.7
0°-90°	2173.0	56.0
0°-180°	3877.3	100.0



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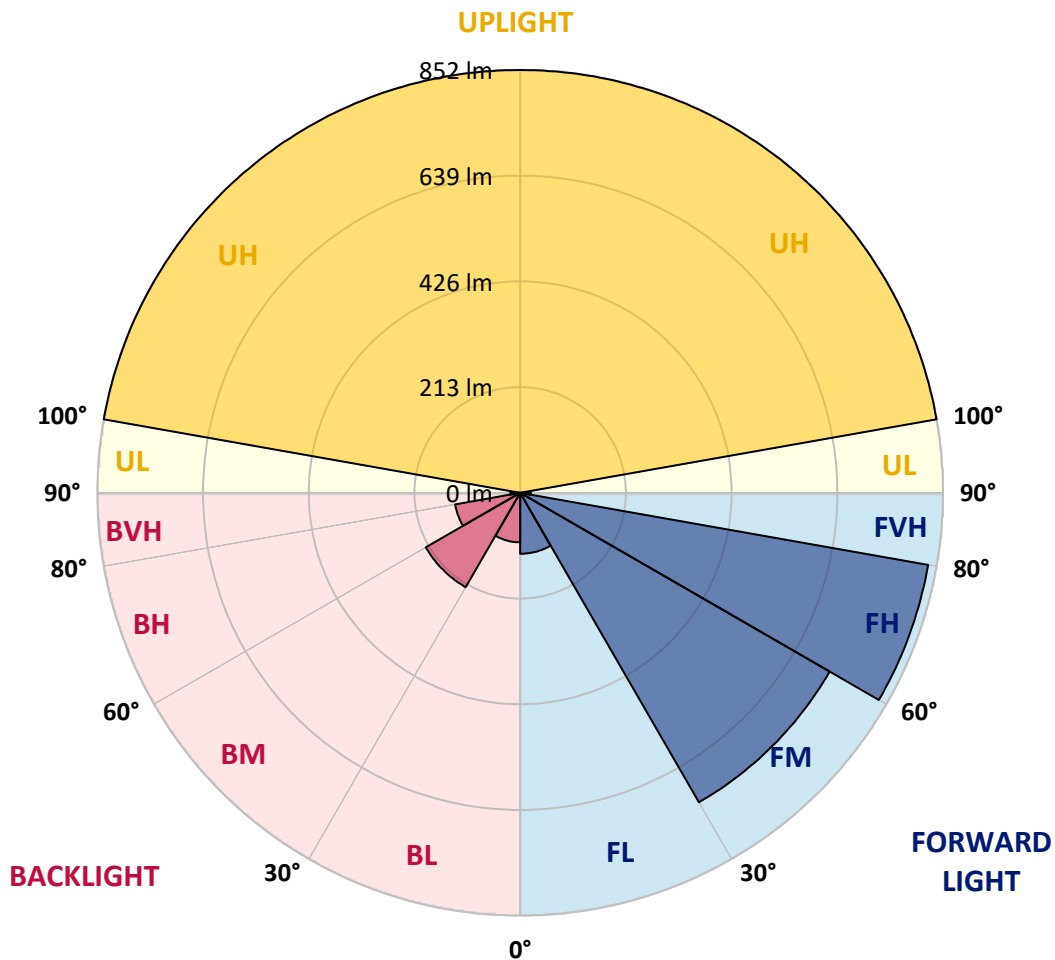
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	122.9	3.2			
FM (30°-60°)	720.5	18.6			
FH (60°-80°)	835.2	21.5			G1/1800
FVH (80°-90°)	21.9	0.6			G1/100
BL (0°-30°)	99.9	2.6	B0/110		
BM (30°-60°)	219.7	5.7	B0/220		
BH (60°-80°)	133.2	3.4	B1/500		G1/500
BVH (80°-90°)	19.8	0.5			G1/100
UL (90°-100°)	10.4	0.3		U2/50	
UH (100°-180°)	852.5	22.0		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°	279.6	279.6	279.6	279.6	279.6	279.6	279.6	279.6	279.6	279.6	279.6
2.5°	294.5	294.0	294.0	291.6	290.6	289.1	287.7	285.9	284.0	281.8	278.9
5°	308.6	309.6	308.3	304.4	299.8	294.7	292.8	288.4	282.4	277.0	272.1
7.5°	322.1	322.4	319.0	312.7	305.4	297.6	295.0	289.1	282.4	275.2	268.0
10°	331.9	332.2	327.3	318.4	308.6	299.8	296.9	290.9	282.8	274.8	265.7
12.5°	337.7	337.9	330.4	321.2	309.6	300.8	298.1	291.9	283.3	273.3	263.2
15°	336.7	337.7	331.3	321.2	308.8	301.0	297.9	292.5	281.8	271.6	261.0
17.5°	330.4	331.7	326.5	315.6	305.7	299.5	296.0	290.6	280.2	269.5	257.8
20°	318.0	319.7	317.4	306.7	300.0	295.0	292.8	287.7	278.0	267.0	255.0
22.5°	304.2	305.7	305.2	296.4	293.2	290.6	288.4	284.7	276.0	265.1	253.7
25°	294.0	295.4	294.5	286.9	287.7	287.7	286.5	283.7	275.8	265.7	253.7
27.5°	310.8	310.8	302.5	287.2	285.6	288.4	287.7	286.2	279.9	268.9	256.3
30°	372.0	367.1	352.5	313.7	293.7	292.5	292.2	291.2	285.6	275.8	264.1
32.5°	440.3	435.6	418.0	369.5	328.2	301.0	298.1	298.5	296.9	287.7	276.0
35°	501.2	500.5	486.7	434.0	381.4	330.9	319.7	312.0	311.4	307.6	298.5
37.5°	550.3	550.3	551.6	491.7	439.1	378.5	359.3	335.3	335.3	333.2	327.5
40°	606.4	609.1	611.8	544.0	500.9	435.3	413.6	377.3	366.3	369.7	371.0
42.5°	680.3	683.4	681.5	608.7	557.3	503.1	476.3	432.4	405.3	411.1	424.3
45°	730.1	731.3	744.9	676.2	628.3	560.5	537.7	477.6	450.8	462.4	485.7
47.5°	786.5	789.6	791.8	752.7	711.4	625.4	583.8	521.4	503.9	521.6	558.6
50°	841.6	837.5	843.5	841.9	790.1	683.0	633.6	562.2	563.6	587.5	648.0
52.5°	889.5	875.7	889.5	906.9	891.7	742.3	684.7	610.6	628.8	658.2	753.7
55°	926.4	892.9	916.3	965.5	962.1	794.6	743.0	674.9	705.3	745.4	882.0
57.5°	851.1	855.2	919.4	1004.8	1003.2	847.6	794.0	755.3	792.8	837.5	1033.9
60°	780.8	799.0	898.3	1011.2	1032.1	905.3	862.7	846.7	881.3	935.9	1179.6
62.5°	743.5	761.0	864.0	999.5	1077.7	990.7	955.1	942.8	990.1	1051.3	1309.4
65°	755.3	766.0	861.7	1017.2	1130.3	1120.0	1104.5	1084.1	1107.6	1165.0	1368.0
67.5°	722.5	740.1	843.5	1048.4	1226.5	1277.5	1290.4	1268.4	1248.6	1240.6	1282.6
70°	537.7	554.7	663.2	919.4	1305.2	1551.1	1543.3	1469.4	1335.9	1224.3	1002.1
72°	341.6	337.0	419.9	673.5	1160.3	1621.4	1658.6	1522.2	1296.2	1087.2	680.6
72.5°	248.4	270.7	348.4	598.9	1102.3	1582.9	1637.3	1505.1	1244.2	1026.9	598.6
75°	60.5	64.0	83.5	214.7	645.5	1191.2	1259.2	1162.8	908.2	609.6	265.4
77.5°	41.1	42.6	55.2	75.6	189.7	679.3	747.4	642.1	406.3	207.4	118.1
80°	30.6	31.5	40.1	53.6	78.8	231.7	273.3	217.2	101.1	115.1	84.1
82.5°	21.4	22.1	30.3	39.3	52.3	54.2	72.1	79.8	65.6	75.4	49.1
85°	14.8	14.8	22.1	27.1	33.1	26.8	28.7	40.1	44.5	44.7	29.9
87.5°	7.8	8.8	12.9	17.3	17.3	12.3	13.6	20.5	25.0	26.8	18.0
90°	7.7	7.7	12.3	14.5	11.9	10.0	9.7	11.0	14.8	17.3	12.6
92.5°	4.0	4.0	4.9	5.9	5.9	5.9	6.2	6.8	6.8	5.9	5.9
95°	4.9	4.9	5.9	6.8	6.8	6.8	6.8	6.8	7.8	6.8	6.8
97.5°	6.8	6.8	7.8	7.8	8.8	8.8	9.7	11.8	9.8	8.8	7.8
100°	7.8	7.8	8.8	9.8	11.8	20.6	23.0	28.5	25.5	22.5	18.7
102.5°	10.8	10.8	12.8	17.7	26.5	39.3	42.2	49.0	46.2	41.2	38.3
105°	20.6	21.6	26.5	35.3	47.1	61.8	64.5	70.7	68.7	63.8	59.8
107.5°	40.2	41.2	48.1	57.0	71.7	86.3	88.4	93.2	92.3	88.3	85.4

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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	48°	55°	65°	75°	85°
110°	64.8	66.7	72.7	85.4	100.1	111.9	113.6	117.8	118.8	116.8	113.8
112.5°	97.2	97.2	104.0	118.8	131.5	140.3	141.8	145.3	147.2	146.2	144.3
115°	137.4	136.5	144.3	156.0	164.9	170.8	172.3	175.7	178.7	175.7	173.7
117.5°	180.6	180.6	185.5	193.3	198.3	201.2	202.9	207.1	211.0	206.1	204.2
120°	220.8	218.8	221.8	228.7	232.6	238.5	239.4	241.5	245.3	240.5	238.5
122.5°	258.2	255.2	256.2	262.0	266.0	271.8	272.5	273.8	277.8	272.8	270.9
125°	292.5	288.5	290.5	293.5	299.3	304.3	305.2	307.2	309.2	304.3	304.3
127.5°	323.9	322.9	322.9	326.8	332.7	333.7	335.2	338.6	339.6	339.6	338.6
130°	356.3	354.3	355.3	359.2	363.2	365.1	366.6	370.0	374.0	374.0	372.0
132.5°	388.7	386.7	385.7	393.5	396.5	397.5	399.3	403.4	408.3	406.3	406.3
135°	421.0	418.1	418.1	424.0	427.0	428.9	430.6	434.8	439.7	438.7	441.7
137.5°	451.5	448.5	450.5	451.5	455.4	459.3	460.8	464.2	466.2	467.2	472.1
140°	479.0	476.0	478.0	480.0	481.9	487.8	488.7	490.7	492.7	494.7	499.5
142.5°	508.4	505.5	507.5	508.4	511.3	515.3	515.9	517.2	523.2	523.2	524.1
145°	539.8	535.9	534.0	536.8	539.8	540.8	542.3	545.7	551.6	550.6	547.7
147.5°	564.3	561.4	560.5	563.3	563.3	564.3	565.8	569.3	574.2	575.2	572.2
150°	584.0	581.0	582.0	582.0	582.0	582.0	583.2	586.0	588.9	591.8	594.8
152.5°	599.7	596.7	596.7	597.7	598.7	598.7	599.0	599.7	602.7	606.5	611.5
155°	617.3	613.5	613.5	615.4	618.3	616.3	615.8	614.4	619.3	624.2	626.2
157.5°	634.0	631.1	631.1	632.0	634.0	633.0	632.8	632.0	636.0	638.0	638.0
160°	650.7	647.8	646.8	643.8	642.8	642.8	643.7	645.8	651.7	648.8	647.8
162.5°	660.5	656.6	656.6	652.7	648.8	650.7	651.9	654.7	658.5	657.6	655.7
165°	668.4	665.5	663.5	663.5	660.5	660.5	660.3	659.5	664.5	667.4	665.5
167.5°	677.2	674.3	671.3	673.3	675.3	672.3	670.2	665.5	671.3	675.3	675.3
170°	685.0	682.2	679.2	679.2	680.2	678.2	676.7	673.3	676.2	681.2	683.1
172.5°	686.0	684.1	682.2	680.2	677.2	677.2	677.0	676.2	679.2	681.2	683.1
175°	687.0	685.0	684.1	682.2	678.2	677.2	677.2	677.2	682.2	683.1	681.2
177.5°	693.9	692.0	687.0	686.0	684.1	682.2	681.8	681.2	686.0	688.0	685.0
180°	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	279.6	279.6	279.6	279.6	279.6	279.6	279.6	279.6	279.6	279.6	279.6
2.5°	278.4	276.5	273.9	272.6	272.1	270.7	269.5	268.9	268.9	267.7	268.0
5°	269.5	266.7	263.2	260.7	260.4	260.4	261.0	261.0	261.2	260.4	261.7
7.5°	265.1	261.9	256.8	254.1	251.9	251.5	252.9	255.3	256.6	255.7	256.8
10°	261.9	258.4	252.9	249.3	247.8	247.1	248.0	250.5	254.7	254.7	255.9
12.5°	258.8	254.4	248.7	246.1	244.9	245.2	246.4	248.4	252.9	254.4	255.0
15°	255.7	250.5	245.9	242.5	242.5	243.4	244.9	247.1	251.3	254.1	254.7
17.5°	252.4	247.4	243.4	240.5	240.5	241.7	243.4	246.1	249.0	253.1	253.1
20°	249.7	245.6	240.2	237.7	237.3	238.3	240.2	243.0	245.2	249.3	249.7
22.5°	248.0	243.0	238.1	234.2	232.6	232.0	233.9	236.7	238.9	243.0	243.7
25°	247.4	241.7	235.4	228.5	224.5	223.2	224.0	227.6	229.4	232.6	233.6
27.5°	249.7	244.2	234.5	221.9	213.3	209.9	210.9	213.1	213.7	217.2	218.7
30°	257.3	250.9	236.4	215.0	199.5	193.2	193.2	193.6	194.6	197.3	197.6
32.5°	269.5	263.6	242.0	207.7	185.3	176.4	174.3	172.7	172.7	172.5	172.7
35°	292.2	287.2	251.9	199.5	169.9	160.1	154.8	151.9	149.1	147.8	147.5
37.5°	325.0	320.5	265.7	190.1	156.3	146.5	140.0	134.3	131.2	130.8	132.4
40°	373.9	369.5	281.2	179.3	143.4	136.1	129.3	123.2	119.7	120.1	121.7
42.5°	434.0	420.5	297.9	164.9	132.9	129.3	121.7	116.6	113.2	111.3	110.9
45°	504.3	481.6	313.7	151.4	121.7	123.2	116.0	110.3	105.9	100.9	100.3
47.5°	591.9	542.8	327.5	137.7	109.3	116.9	110.0	104.7	98.1	92.1	91.1
50°	683.4	613.0	339.5	123.2	98.4	110.0	104.0	96.7	87.7	82.3	82.3
52.5°	789.0	697.5	354.9	107.2	89.8	102.5	96.5	87.0	79.4	78.8	78.8
55°	906.5	786.2	365.6	94.5	83.3	94.2	91.4	88.6	86.1	86.7	87.0
57.5°	1029.5	878.5	356.2	85.8	77.8	92.3	100.5	96.7	88.9	88.6	88.2
60°	1135.4	950.4	303.9	80.1	73.8	95.5	107.8	96.7	88.9	93.0	93.3
62.5°	1204.8	984.5	202.4	72.9	67.7	90.2	105.3	94.0	89.2	100.9	101.8
65°	1195.3	946.3	116.3	67.7	64.0	82.9	101.8	90.5	83.3	89.8	87.9
67.5°	1054.4	793.0	84.1	65.6	61.2	77.8	95.5	85.4	77.5	85.8	82.3
70°	757.8	539.9	72.5	63.7	59.3	71.9	91.1	82.3	74.4	80.1	74.6
72°	508.4	328.4	66.6	62.2	57.4	68.1	87.9	79.8	71.5	74.6	68.7
72.5°	432.7	259.1	64.9	61.4	56.8	67.1	87.0	79.1	71.0	74.1	68.5
75°	161.8	101.5	57.7	56.8	52.3	62.4	83.3	76.3	67.7	66.8	64.3
77.5°	83.3	64.3	49.1	50.1	47.0	57.0	79.1	71.9	62.4	59.0	57.7
80°	60.5	46.6	39.7	42.6	40.1	51.3	73.4	65.3	56.8	53.0	51.3
82.5°	38.2	28.9	30.3	33.8	34.0	45.4	66.8	58.6	50.5	47.3	44.7
85°	18.2	17.3	21.4	25.0	27.4	38.4	61.2	52.0	44.2	37.8	38.2
87.5°	9.8	13.3	12.9	16.7	21.1	31.5	54.2	42.6	35.3	28.4	28.7
90°	9.1	10.3	12.7	15.5	15.5	20.4	42.8	32.1	30.5	15.0	13.7
92.5°	5.9	5.9	5.9	6.8	6.8	5.9	5.9	5.9	4.9	4.0	4.0
95°	6.8	6.8	6.8	7.8	6.8	6.8	6.8	6.8	5.9	4.9	4.9
97.5°	7.8	7.8	8.8	9.8	11.8	8.8	8.8	7.8	7.8	6.8	6.8
100°	18.7	18.7	22.5	25.5	28.5	20.6	11.8	9.8	8.8	7.8	7.8
102.5°	37.3	38.3	41.2	46.2	49.0	39.3	26.5	17.7	12.8	10.8	10.8
105°	59.8	59.8	63.8	68.7	70.7	61.8	47.1	35.3	26.5	21.6	20.6
107.5°	84.4	85.4	88.3	92.3	93.2	86.3	71.7	57.0	48.1	41.2	40.2



REPORT NUMBER: P271700

CATALOG NUMBER: IST-AF-350-LED-E1-T4W-7027-ULG

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	114.8	113.8	116.8	118.8	117.8	111.9	100.1	85.4	72.7	66.7	64.8
112.5°	144.3	144.3	146.2	147.2	145.3	140.3	131.5	118.8	104.0	97.2	97.2
115°	174.7	173.7	175.7	178.7	175.7	170.8	164.9	156.0	144.3	136.5	137.4
117.5°	205.2	204.2	206.1	211.0	207.1	201.2	198.3	193.3	185.5	180.6	180.6
120°	238.5	238.5	240.5	245.3	241.5	238.5	232.6	228.7	221.8	218.8	220.8
122.5°	271.8	270.9	272.8	277.8	273.8	271.8	266.0	262.0	256.2	255.2	258.2
125°	304.3	304.3	304.3	309.2	307.2	304.3	299.3	293.5	290.5	288.5	292.5
127.5°	340.5	338.6	339.6	339.6	338.6	333.7	332.7	326.8	322.9	322.9	323.9
130°	373.0	372.0	374.0	374.0	370.0	365.1	363.2	359.2	355.3	354.3	356.3
132.5°	407.3	406.3	406.3	408.3	403.4	397.5	396.5	393.5	385.7	386.7	388.7
135°	442.7	441.7	438.7	439.7	434.8	428.9	427.0	424.0	418.1	418.1	421.0
137.5°	473.0	472.1	467.2	466.2	464.2	459.3	455.4	451.5	450.5	448.5	451.5
140°	501.5	499.5	494.7	492.7	490.7	487.8	481.9	480.0	478.0	476.0	479.0
142.5°	526.0	524.1	523.2	523.2	517.2	515.3	511.3	508.4	507.5	505.5	508.4
145°	549.7	547.7	550.6	551.6	545.7	540.8	539.8	536.8	534.0	535.9	539.8
147.5°	574.2	572.2	575.2	574.2	569.3	564.3	563.3	563.3	560.5	561.4	564.3
150°	598.7	594.8	591.8	588.9	586.0	582.0	582.0	582.0	582.0	581.0	584.0
152.5°	616.3	611.5	606.5	602.7	599.7	598.7	598.7	597.7	596.7	596.7	599.7
155°	629.2	626.2	624.2	619.3	614.4	616.3	618.3	615.4	613.5	613.5	617.3
157.5°	642.8	638.0	638.0	636.0	632.0	633.0	634.0	632.0	631.1	631.1	634.0
160°	653.7	647.8	648.8	651.7	645.8	642.8	642.8	643.8	646.8	647.8	650.7
162.5°	661.5	655.7	657.6	658.5	654.7	650.7	648.8	652.7	656.6	656.6	660.5
165°	669.3	665.5	667.4	664.5	659.5	660.5	660.5	663.5	663.5	665.5	668.4
167.5°	681.2	675.3	675.3	671.3	665.5	672.3	675.3	673.3	671.3	674.3	677.2
170°	688.0	683.1	681.2	676.2	673.3	678.2	680.2	679.2	679.2	682.2	685.0
172.5°	688.0	683.1	681.2	679.2	676.2	677.2	677.2	680.2	682.2	684.1	686.0
175°	686.0	681.2	683.1	682.2	677.2	677.2	678.2	682.2	684.1	685.0	687.0
177.5°	689.0	685.0	688.0	686.0	681.2	682.2	684.1	686.0	687.0	692.0	693.9
180°	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0	687.0

(END OF REPORT)