

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: P226443

Luminaire Tested: **IST-AF-350-LED-E1-T3-7050-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P226443
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-350-LED-E1-T3-7050-ULG
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE WITH UPLIGHT
LIGHT SQUARE WITH ACCULED OPTICS-TYPE III, 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: 4240.7 lumens
Efficiency: N/A
Efficacy: 115.3 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 - G1

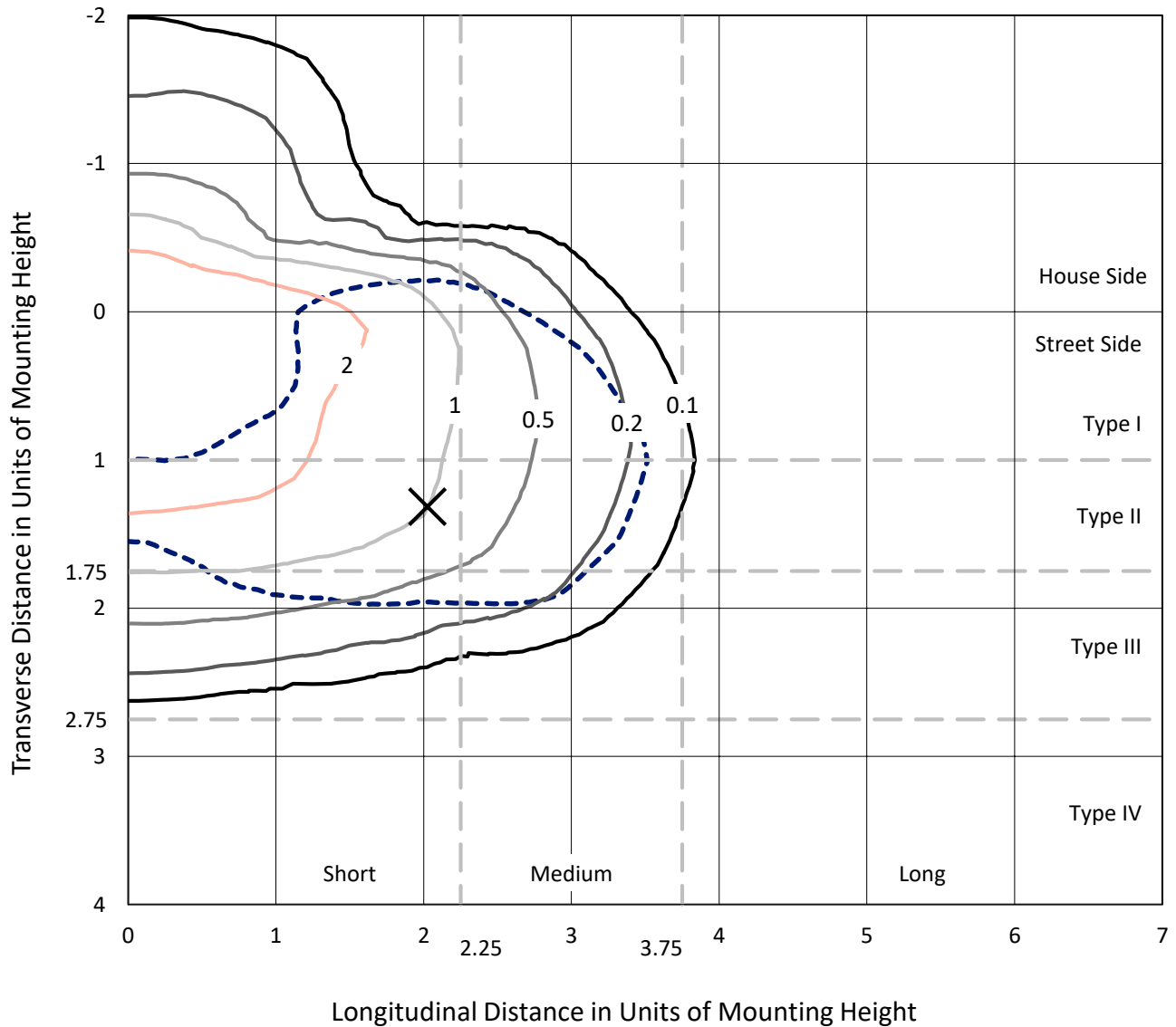
Input Watts (W): 36.79
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

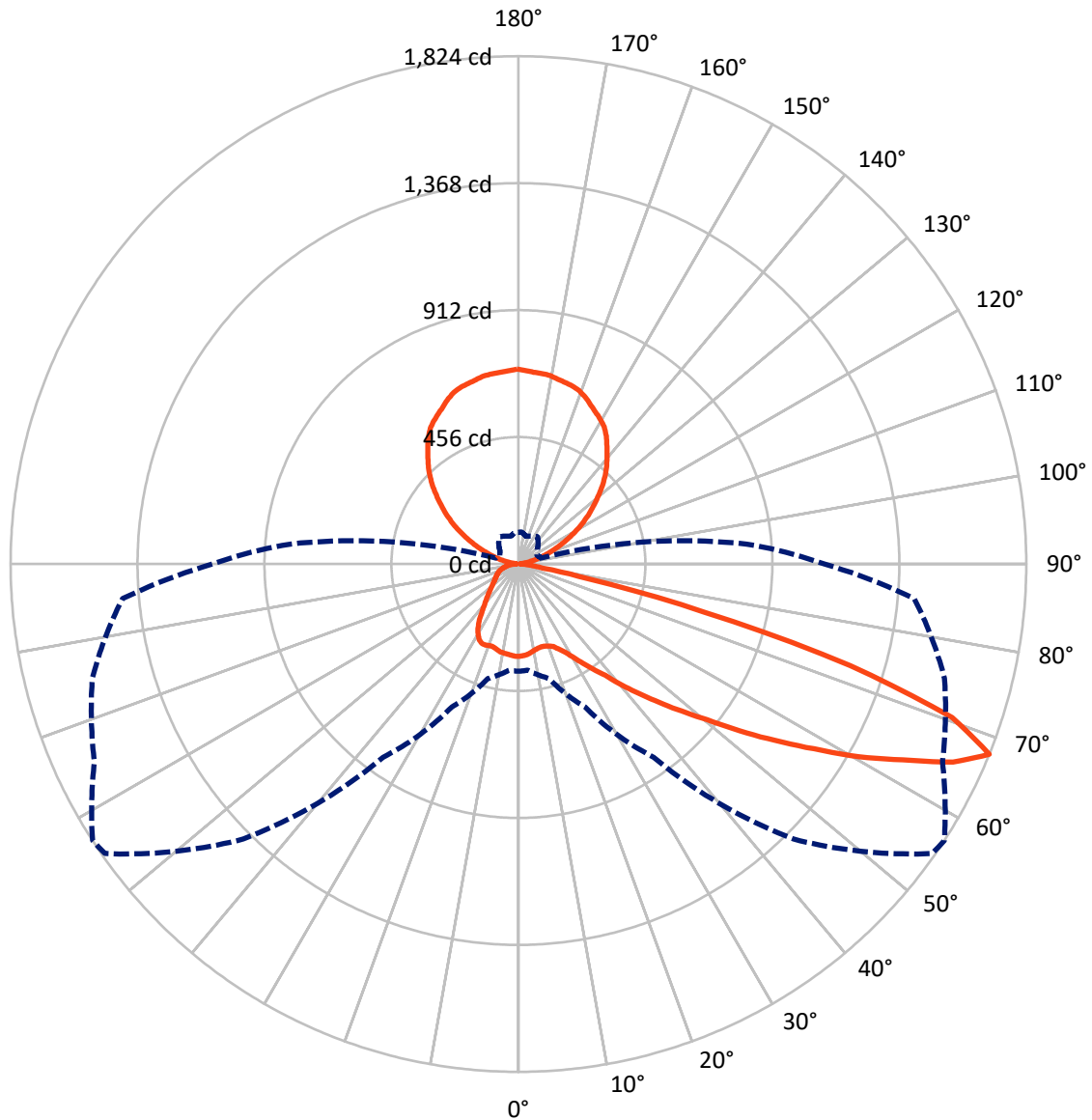
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.5 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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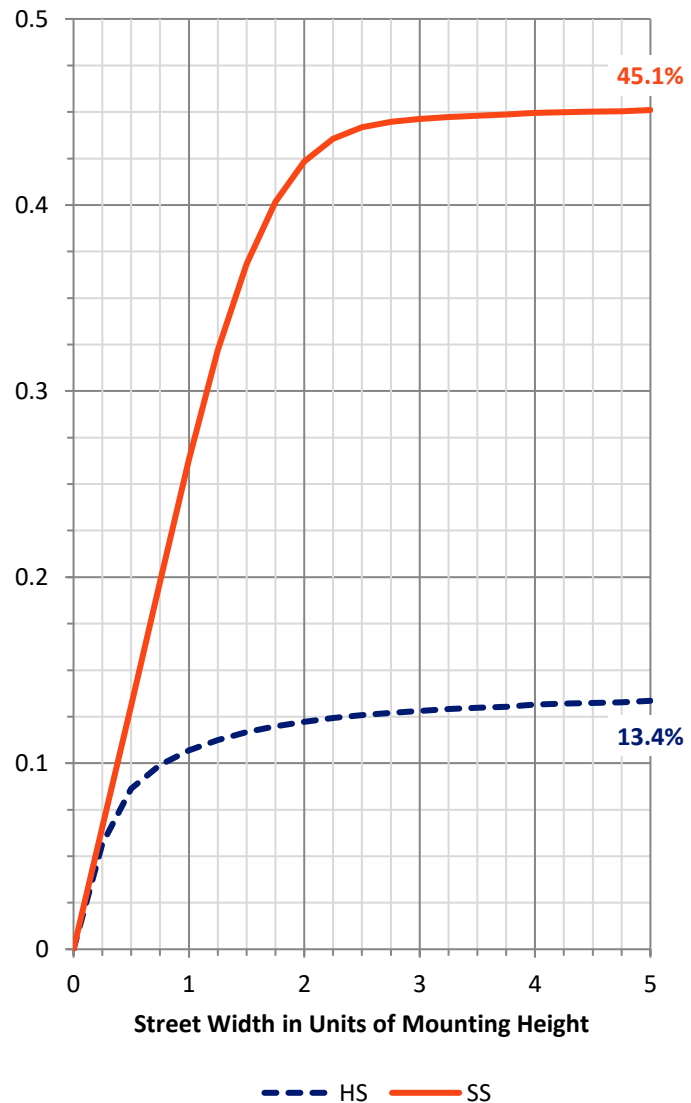
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	583.4	868.3	1451.7
	% Fixture	13.8	20.5	34.2
Street Side	Lumens	1921.3	867.8	2789.1
	% Fixture	45.3	20.5	65.8
Total	Lumens	2504.7	1736.1	4240.7
	% Fixture	59.1	40.9	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.0	0.7
10°-20°	89.2	2.1
20°-30°	153.5	3.6
30°-40°	249.6	5.9
40°-50°	402.7	9.5
50°-60°	600.3	14.2
60°-70°	676.1	15.9
70°-80°	260.7	6.1
80°-90°	41.4	1.0
90°-100°	10.2	0.2
100°-110°	57.4	1.4
110°-120°	166.1	3.9
120°-130°	273.2	6.4
130°-140°	336.8	7.9
140°-150°	344.6	8.1
150°-160°	290.3	6.8
160°-170°	191.2	4.5
170°-180°	66.3	1.6
0°-90°	2504.7	59.1
0°-180°	4240.7	100.0



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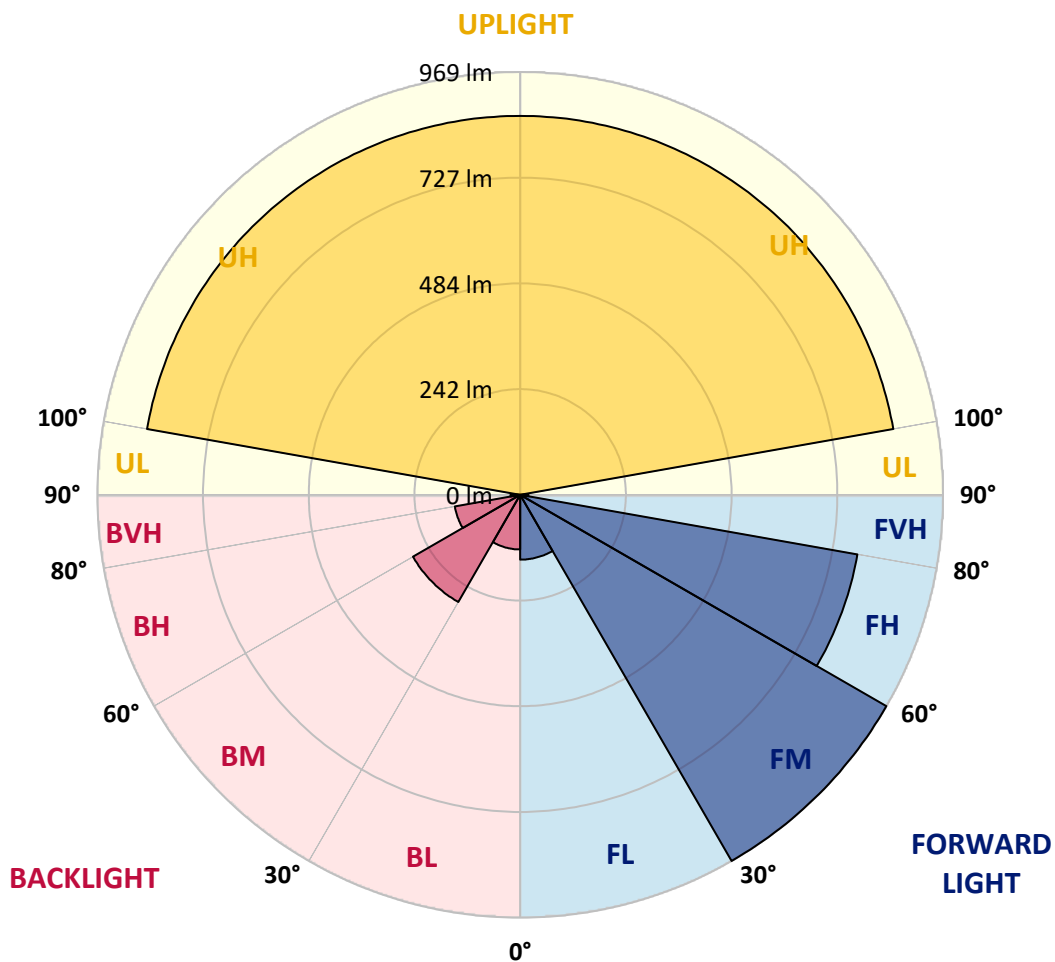
CATALOG NUMBER: IST-AF-350-LED-E1-T3-7050-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	148.6	3.5			
FM (30°-60°)	969.0	22.8			
FH (60°-80°)	784.7	18.5			G1/1800
FVH (80°-90°)	19.1	0.4			G1/100
BL (0°-30°)	125.2	3.0	B1/500		
BM (30°-60°)	283.7	6.7	B1/1000		
BH (60°-80°)	152.1	3.6	B1/500		G1/500
BVH (80°-90°)	22.4	0.5			G1/100
UL (90°-100°)	10.2	0.2		U2/50	
UH (100°-180°)	868.3	20.5		U4/1000	

BUG Rating: B1-U5-G1

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	331.9	331.9	331.9	331.9	331.9	331.9	331.9	331.9	331.9	331.9	331.9
2.5°	329.4	330.1	330.8	330.5	330.5	330.5	330.5	329.7	330.8	330.8	330.1
5°	323.9	324.3	324.6	325.4	326.1	326.8	327.2	327.2	327.5	327.2	326.5
7.5°	315.9	316.3	317.8	317.8	318.5	319.9	320.7	321.4	322.5	322.5	322.1
10°	313.4	313.4	313.4	312.3	313.0	313.4	314.5	314.5	317.4	318.8	319.6
12.5°	316.3	315.9	315.9	313.0	310.5	309.4	310.5	310.9	314.1	316.3	317.8
15°	322.8	322.8	322.1	317.8	312.7	308.7	308.3	308.3	310.9	314.1	316.7
17.5°	338.1	339.5	334.4	327.5	319.2	312.7	310.1	309.8	311.6	314.1	316.7
20°	367.1	366.7	359.1	346.8	332.3	321.4	315.2	314.5	314.1	315.6	318.5
22.5°	401.5	400.1	391.0	375.4	355.5	335.5	323.6	322.1	319.2	320.3	324.3
25°	438.5	438.9	427.7	407.4	382.3	358.4	340.2	338.8	332.6	331.9	336.3
27.5°	475.5	480.3	465.0	445.8	416.1	387.4	360.9	358.7	353.3	351.5	355.8
30°	529.6	527.8	508.9	483.9	454.1	418.2	392.8	388.9	378.0	380.5	385.2
32.5°	575.3	579.3	562.2	532.5	493.3	455.6	426.2	424.0	413.5	416.4	422.9
35°	631.2	640.6	618.1	581.5	543.7	504.9	469.7	463.9	455.6	461.4	466.5
37.5°	695.0	699.7	682.3	635.1	596.7	556.1	516.2	507.1	498.0	510.0	519.1
40°	755.9	763.6	741.1	701.2	656.5	617.7	574.2	572.4	551.4	564.4	588.0
42.5°	846.3	855.7	819.8	773.3	733.1	686.3	644.9	635.1	612.3	630.8	670.3
45°	909.4	909.0	884.7	846.3	821.6	776.3	720.4	708.8	684.1	708.8	761.7
47.5°	932.2	937.7	929.3	924.6	915.9	882.9	800.6	789.7	766.5	803.1	852.1
50°	966.0	964.5	964.5	993.5	1018.6	1011.7	894.5	878.9	854.6	898.5	968.9
52.5°	974.7	961.6	981.9	1037.4	1116.9	1122.7	1003.7	995.0	966.0	1008.8	1095.5
55°	950.4	947.1	979.4	1059.9	1185.1	1226.4	1130.3	1118.3	1085.7	1122.3	1232.2
57.5°	896.0	904.3	956.2	1055.2	1232.2	1317.8	1269.2	1252.2	1205.4	1227.5	1367.9
60°	839.0	843.0	911.6	1038.5	1244.9	1381.3	1415.0	1405.2	1325.1	1338.1	1468.3
62.5°	775.9	766.5	837.6	1024.7	1230.8	1468.7	1556.5	1548.9	1454.2	1450.2	1539.8
65°	599.6	612.7	673.2	847.0	1133.9	1536.9	1725.2	1715.4	1598.2	1542.7	1532.2
67.5°	385.2	382.7	425.5	566.2	847.3	1396.9	1813.3	1824.2	1680.5	1584.4	1427.0
70°	138.2	142.2	158.2	257.2	464.7	930.8	1598.6	1652.6	1620.0	1506.4	1161.5
72.5°	84.2	84.2	95.8	115.7	188.3	441.4	1139.3	1246.4	1322.2	1241.3	857.9
75°	66.0	65.7	69.6	79.8	101.6	144.7	605.8	688.5	848.1	857.5	488.2
77.5°	52.2	51.9	55.9	60.6	75.8	76.5	193.3	251.7	389.2	366.4	174.5
80°	42.1	41.7	44.6	46.1	55.5	53.0	77.6	90.0	136.4	119.7	75.4
82.5°	38.1	38.1	41.0	35.2	38.4	37.4	48.2	51.5	68.6	71.1	45.3
85°	24.7	25.4	38.4	34.1	25.0	22.9	30.8	32.6	42.8	46.8	22.1
87.5°	11.6	12.7	29.4	28.3	16.7	12.3	17.4	18.5	23.2	28.7	13.1
90°	7.2	7.2	10.6	12.0	10.2	9.2	9.9	9.9	11.5	12.6	10.6
92.5°	4.0	4.0	5.0	6.0	6.0	6.0	7.0	7.0	7.0	6.0	6.0
95°	5.0	5.0	6.0	7.0	7.0	7.0	7.0	7.2	8.0	7.0	7.0
97.5°	7.0	7.0	8.0	8.0	9.0	9.0	12.0	11.6	10.0	9.0	8.0
100°	8.0	8.0	9.0	10.0	12.0	21.0	29.0	28.4	26.0	23.0	19.0
102.5°	11.0	11.0	13.0	18.0	27.0	40.0	50.0	49.4	47.0	42.0	39.0
105°	21.0	22.0	27.0	36.0	48.0	63.0	72.0	71.6	70.0	65.0	61.0
107.5°	41.0	42.0	49.0	58.0	73.0	88.0	95.0	94.8	94.0	90.0	87.0
110°	66.0	68.0	74.0	87.0	102.0	114.0	120.0	120.2	121.0	119.0	116.0

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CATALOG NUMBER: IST-AF-350-LED-E1-T3-7050-ULG

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
112.5°	99.0	99.0	106.0	121.0	134.0	143.0	148.0	148.4	150.0	149.0	147.0
115°	140.0	139.0	147.0	159.0	168.0	174.0	179.0	179.6	182.0	179.0	177.0
117.5°	184.0	184.0	189.0	197.0	202.0	205.0	211.0	211.8	215.0	210.0	208.0
120°	225.0	223.0	226.0	233.0	237.0	243.0	246.0	246.8	250.0	245.0	243.0
122.5°	263.0	260.0	261.0	267.0	271.0	277.0	279.0	279.8	283.0	278.0	276.0
125°	298.0	294.0	296.0	299.0	305.0	310.0	313.0	313.4	315.0	310.0	310.0
127.5°	330.0	329.0	329.0	333.0	339.0	340.0	345.0	345.2	346.0	346.0	345.0
130°	363.0	361.0	362.0	366.0	370.0	372.0	377.0	377.8	381.0	381.0	379.0
132.5°	396.0	394.0	393.0	401.0	404.0	405.0	411.0	412.0	416.0	414.0	414.0
135°	429.0	426.0	426.0	432.0	435.0	437.0	443.0	444.0	448.0	447.0	450.0
137.5°	460.0	457.0	459.0	460.0	464.0	468.0	473.0	473.4	475.0	476.0	481.0
140°	488.0	485.0	487.0	489.0	491.0	497.0	500.0	500.4	502.0	504.0	509.0
142.5°	518.0	515.0	517.0	518.0	521.0	525.0	527.0	528.2	533.0	533.0	534.0
145°	550.0	546.0	544.0	547.0	550.0	551.0	556.0	557.2	562.0	561.0	558.0
147.5°	575.0	572.0	571.0	574.0	574.0	575.0	580.0	581.0	585.0	586.0	583.0
150°	595.0	592.0	593.0	593.0	593.0	593.0	597.0	597.6	600.0	603.0	606.0
152.5°	611.0	608.0	608.0	609.0	610.0	610.0	611.0	611.6	614.0	618.0	623.0
155°	629.0	625.0	625.0	627.0	630.0	628.0	626.0	627.0	631.0	636.0	638.0
157.5°	646.0	643.0	643.0	644.0	646.0	645.0	644.0	644.8	648.0	650.0	650.0
160°	663.0	660.0	659.0	656.0	655.0	655.0	658.0	659.2	664.0	661.0	660.0
162.5°	673.0	669.0	669.0	665.0	661.0	663.0	667.0	667.8	671.0	670.0	668.0
165°	681.0	678.0	676.0	676.0	673.0	673.0	672.0	673.0	677.0	680.0	678.0
167.5°	690.0	687.0	684.0	686.0	688.0	685.0	678.0	679.2	684.0	688.0	688.0
170°	698.0	695.0	692.0	692.0	693.0	691.0	686.0	686.6	689.0	694.0	696.0
172.5°	699.0	697.0	695.0	693.0	690.0	690.0	689.0	689.6	692.0	694.0	696.0
175°	700.0	698.0	697.0	695.0	691.0	690.0	690.0	691.0	695.0	696.0	694.0
177.5°	707.0	705.0	700.0	699.0	697.0	695.0	694.0	695.0	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°	331.9	331.9	331.9	331.9	331.9	331.9	331.9	331.9	331.9	331.9	331.9
2.5°	331.2	330.5	330.8	331.2	331.5	332.6	333.0	333.0	333.0	332.6	333.4
5°	327.2	326.5	326.5	327.5	328.6	330.1	332.3	334.1	334.8	335.2	335.2
7.5°	322.8	322.1	322.5	324.3	326.1	327.2	329.4	330.5	333.4	333.4	334.1
10°	319.9	320.7	321.0	322.8	324.3	324.3	323.9	323.2	322.5	324.3	323.6
12.5°	318.1	319.2	318.8	321.0	321.7	318.8	314.5	308.7	308.0	308.7	309.4
15°	317.4	317.4	318.5	318.5	314.9	309.0	303.6	304.0	304.7	306.9	306.9
17.5°	317.4	317.8	318.5	315.9	309.4	304.3	303.2	302.2	298.2	297.1	296.0
20°	319.9	319.2	319.9	315.2	309.4	305.4	297.1	289.1	281.5	278.2	276.8
22.5°	326.1	325.0	324.6	319.9	312.7	299.3	282.9	270.6	257.5	253.2	251.7
25°	337.0	336.6	334.1	330.8	310.5	284.4	263.7	244.1	230.0	222.4	222.7
27.5°	356.2	356.2	354.8	340.2	299.3	265.9	238.0	218.0	203.5	196.2	195.2
30°	385.2	385.9	386.7	342.8	281.5	238.7	209.7	196.2	187.5	182.1	181.7
32.5°	421.1	425.1	420.4	339.9	257.2	205.7	187.5	182.8	178.5	174.8	174.5
35°	468.7	479.5	449.8	328.3	230.0	183.2	174.1	170.8	167.6	165.0	165.4
37.5°	532.5	543.0	468.7	308.7	195.2	170.5	166.5	161.4	156.3	150.9	150.2
40°	607.9	604.7	475.2	271.7	173.4	164.3	158.9	152.3	143.6	135.7	134.2
42.5°	683.4	661.6	469.7	226.0	159.2	158.9	151.3	142.9	134.2	127.3	127.3
45°	767.9	711.7	453.1	183.2	148.0	153.1	143.6	134.9	127.0	121.9	121.5
47.5°	847.7	758.5	425.5	152.7	136.8	145.5	137.8	129.9	122.2	117.9	116.8
50°	941.3	811.8	404.4	132.0	125.9	137.8	134.6	127.3	120.1	115.0	114.3
52.5°	1036.0	863.7	388.5	117.9	116.1	132.0	133.1	128.8	121.2	111.4	110.6
55°	1135.0	928.6	356.6	106.6	107.4	127.7	134.9	131.7	126.2	110.3	109.5
57.5°	1218.1	988.4	300.7	99.0	100.5	124.4	135.7	129.5	123.3	111.0	109.9
60°	1283.0	1029.4	220.5	92.9	94.3	120.8	132.4	121.9	113.9	111.0	109.2
62.5°	1302.9	1030.9	146.5	85.6	89.6	114.6	126.6	117.9	108.5	109.9	109.2
65°	1252.9	976.5	104.8	78.7	85.6	107.4	124.1	113.9	105.9	111.7	111.0
67.5°	1098.7	822.7	84.2	73.3	80.2	99.8	119.3	110.3	103.7	115.7	113.5
70°	856.1	590.2	71.5	67.8	74.4	92.5	112.8	106.3	100.8	112.4	109.5
72.5°	564.4	347.5	63.1	62.8	67.5	86.3	105.6	102.7	96.1	101.9	97.6
75°	294.5	161.1	54.8	56.9	59.9	80.9	99.0	96.1	88.9	91.0	89.6
77.5°	115.7	75.4	47.5	50.1	53.3	72.9	90.7	87.8	81.6	79.8	79.4
80°	63.5	50.8	39.5	42.8	45.0	65.7	82.0	78.7	72.2	71.1	70.0
82.5°	40.3	33.0	32.6	34.8	37.7	58.4	73.6	68.6	63.1	74.4	60.2
85°	18.9	19.6	23.2	26.1	29.4	49.7	64.2	58.8	53.3	51.9	46.1
87.5°	10.5	13.1	15.2	17.8	20.3	34.8	50.8	45.7	39.9	34.1	35.2
90°	9.5	9.5	13.4	13.0	11.4	12.1	33.0	30.5	27.0	14.4	11.2
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
110°	117.0	116.0	119.0	121.0	120.0	114.0	102.0	87.0	74.0	68.0	66.0



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CATALOG NUMBER: IST-AF-350-LED-E1-T3-7050-ULG

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
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)