

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: P226444

Luminaire Tested: **IST-AF-350-LED-E1-T3-7030-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P226444
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-T3-7030-ULG
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE WITH UPLIGHT
LIGHT SQUARE WITH ACCULED OPTICS-TYPE III, WITH UPLIGHT GLOW
Light Source: (16) 3000K CCT, 70 CRI LEDs and (1) UPLIGHT LED
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3953.2 lumens
Efficiency: N/A
Efficacy: 107.5 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

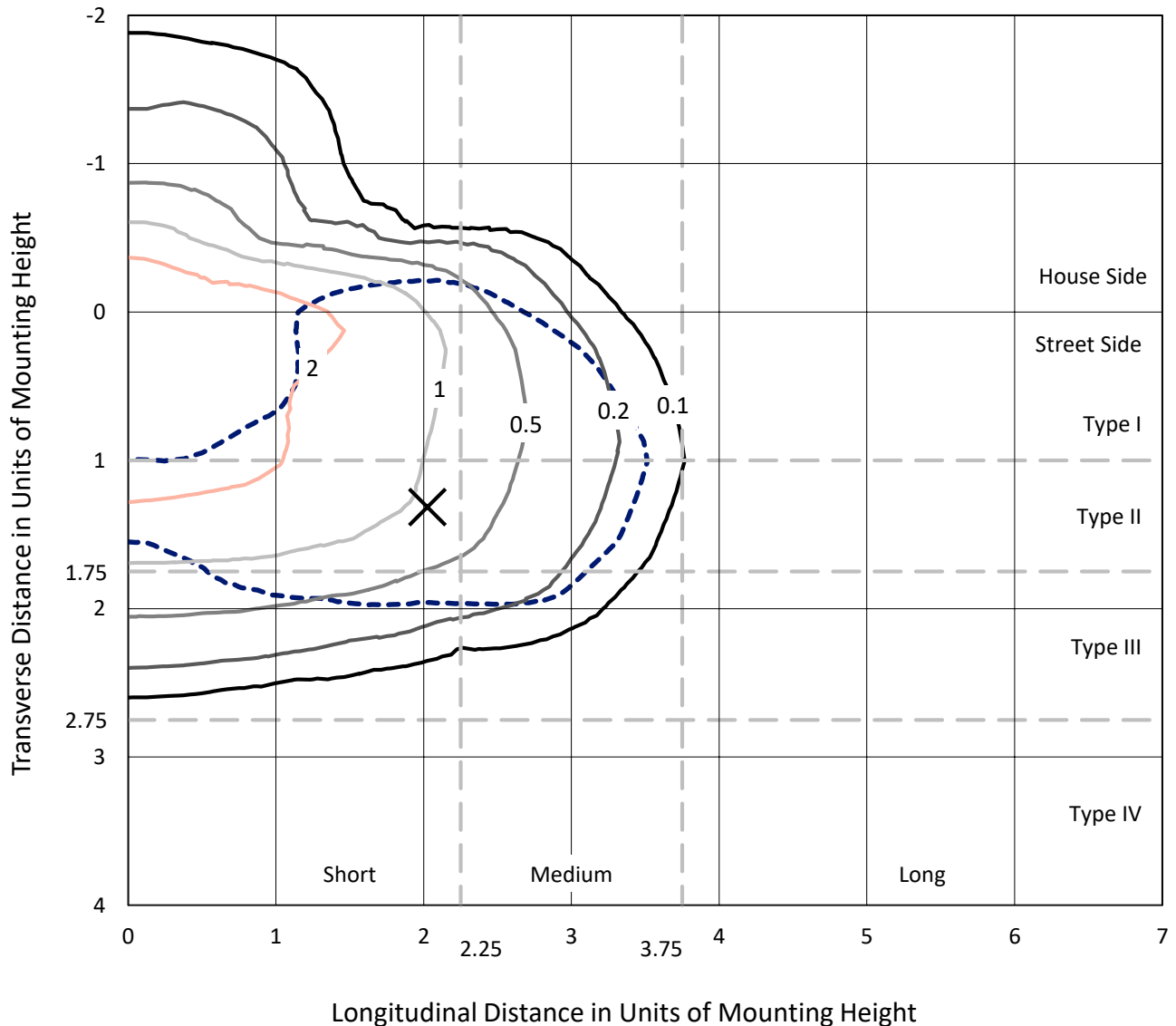
Input Watts (W): 36.79
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

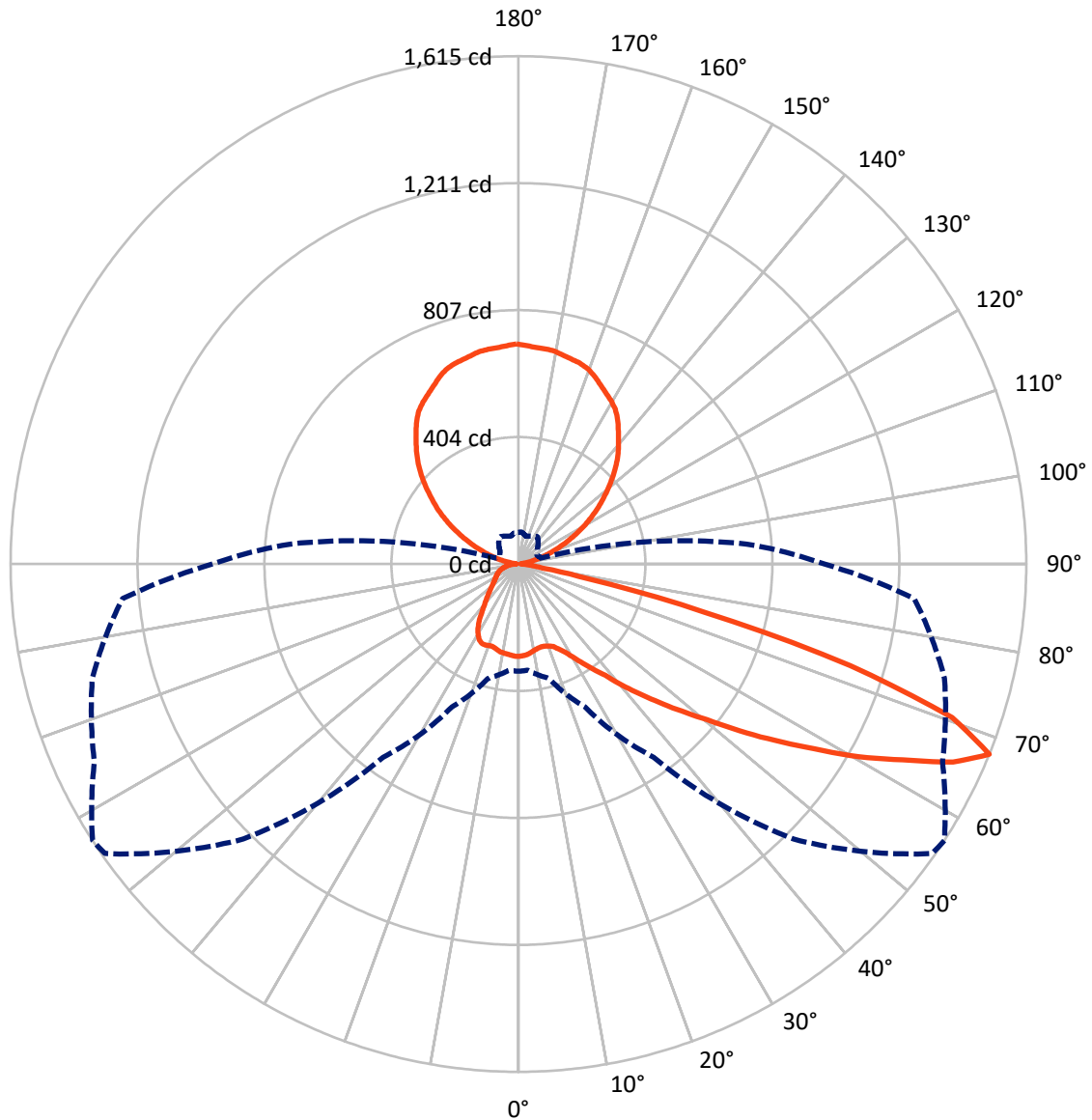
× Max cd
 - - - 1/2 Max cd



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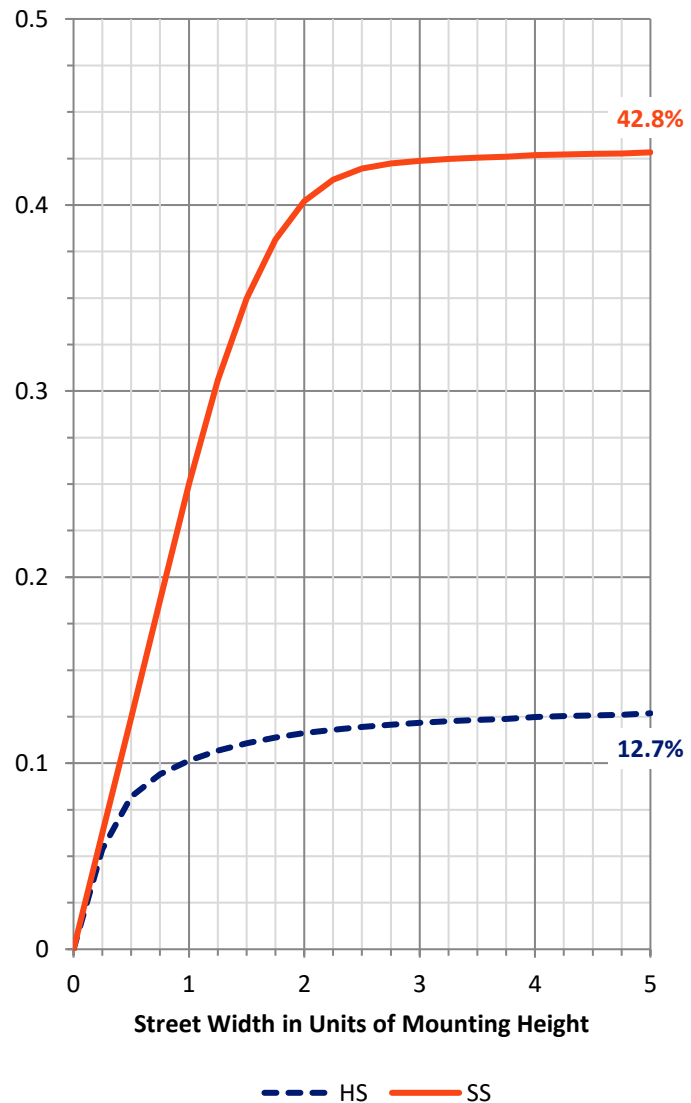
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	516.4	868.2	1384.7
	% Fixture	13.1	22.0	35.0
Street Side	Lumens	1700.8	867.7	2568.5
	% Fixture	43.0	22.0	65.0
Total	Lumens	2217.2	1736.0	3953.2
	% Fixture	56.1	43.9	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.5	0.7
10°-20°	79.0	2.0
20°-30°	135.9	3.4
30°-40°	221.0	5.6
40°-50°	356.5	9.0
50°-60°	531.4	13.4
60°-70°	598.5	15.1
70°-80°	230.7	5.8
80°-90°	36.8	0.9
90°-100°	10.1	0.3
100°-110°	57.4	1.5
110°-120°	166.1	4.2
120°-130°	273.2	6.9
130°-140°	336.8	8.5
140°-150°	344.6	8.7
150°-160°	290.3	7.3
160°-170°	191.2	4.8
170°-180°	66.3	1.7
0°-90°	2217.2	56.1
0°-180°	3953.2	100.0



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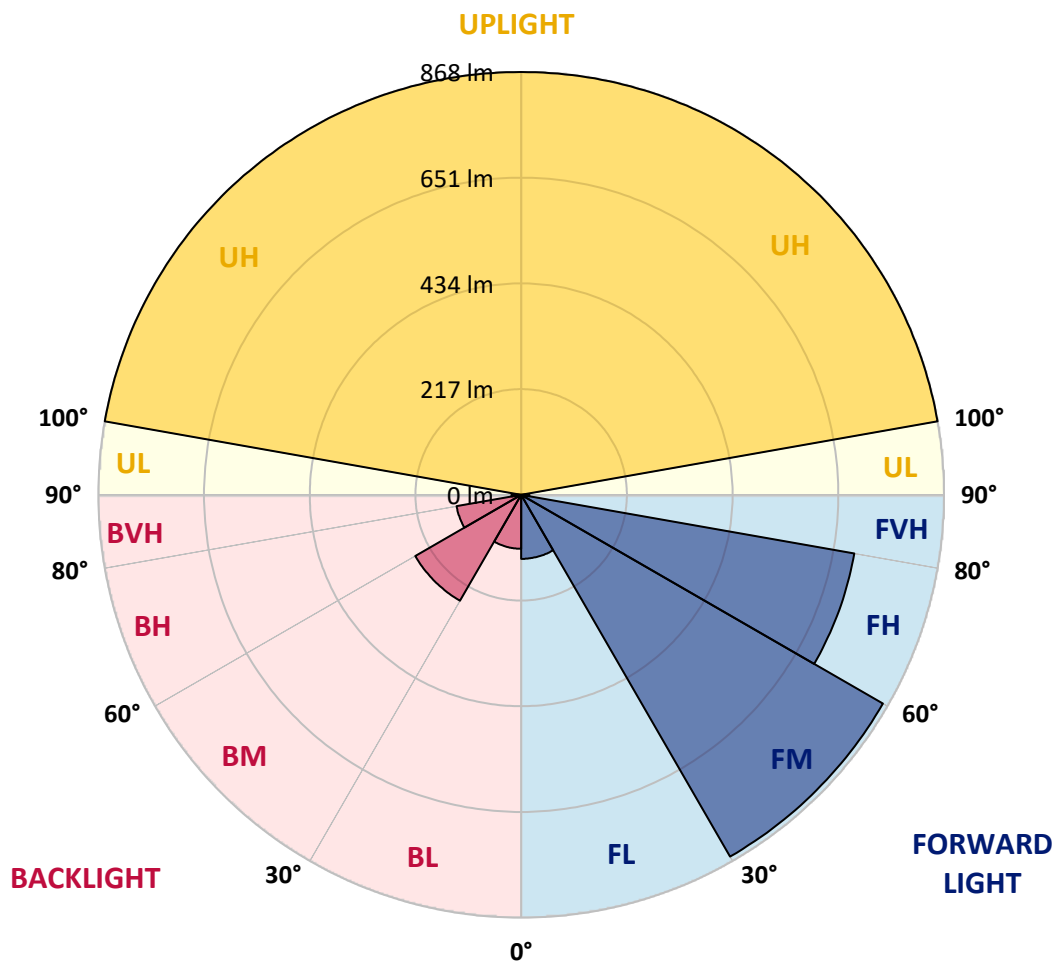
CATALOG NUMBER: IST-AF-350-LED-E1-T3-7030-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	131.5	3.3			
FM	(30°-60°)	857.7	21.7			
FH	(60°-80°)	694.6	17.6			G1/1800
FVH	(80°-90°)	16.9	0.4			G1/100
BL	(0°-30°)	110.9	2.8	B1/500		
BM	(30°-60°)	251.1	6.4	B1/1000		
BH	(60°-80°)	134.6	3.4	B1/500		G1/500
BVH	(80°-90°)	19.9	0.5			G1/100
UL	(90°-100°)	10.1	0.3		U2/50	
UH	(100°-180°)	868.2	22.0		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°	293.8	293.8	293.8	293.8	293.8	293.8	293.8	293.8	293.8	293.8	293.8
2.5°	291.6	292.2	292.8	292.5	292.5	292.5	292.5	291.9	292.8	292.8	292.2
5°	286.7	287.1	287.4	288.0	288.7	289.3	289.6	289.6	289.9	289.6	289.0
7.5°	279.7	280.0	281.3	281.3	281.9	283.2	283.8	284.5	285.5	285.5	285.1
10°	277.4	277.4	277.4	276.5	277.1	277.4	278.4	278.4	281.0	282.2	282.9
12.5°	280.0	279.7	279.7	277.1	274.9	273.9	274.9	275.2	278.1	280.0	281.3
15°	285.8	285.8	285.1	281.3	276.8	273.2	272.9	272.9	275.2	278.1	280.3
17.5°	299.3	300.5	296.0	289.9	282.6	276.8	274.5	274.2	275.8	278.1	280.3
20°	324.9	324.6	317.9	307.0	294.1	284.5	279.0	278.4	278.1	279.4	281.9
22.5°	355.4	354.2	346.1	332.3	314.7	297.0	286.4	285.1	282.6	283.5	287.1
25°	388.2	388.5	378.6	360.6	338.4	317.2	301.2	299.9	294.4	293.8	297.7
27.5°	421.0	425.1	411.6	394.6	368.3	342.9	319.5	317.6	312.7	311.1	315.0
30°	468.8	467.2	450.5	428.3	402.0	370.2	347.7	344.2	334.6	336.8	341.0
32.5°	509.3	512.8	497.7	471.4	436.7	403.3	377.3	375.4	366.0	368.6	374.4
35°	558.7	567.0	547.1	514.7	481.3	447.0	415.8	410.7	403.3	408.4	412.9
37.5°	615.2	619.4	604.0	562.2	528.2	492.2	456.9	448.9	440.9	451.5	459.5
40°	669.2	675.9	656.0	620.7	581.2	546.8	508.3	506.7	488.1	499.6	520.5
42.5°	749.1	757.5	725.7	684.6	648.9	607.5	570.9	562.2	542.0	558.4	593.4
45°	805.0	804.7	783.1	749.1	727.3	687.1	637.7	627.4	605.6	627.4	674.3
47.5°	825.2	830.0	822.6	818.5	810.8	781.5	708.6	699.0	678.5	710.9	754.2
50°	855.1	853.8	853.8	879.5	901.6	895.5	791.8	778.0	756.5	795.3	857.6
52.5°	862.8	851.2	869.2	918.3	988.6	993.8	888.5	880.8	855.1	893.0	969.7
55°	841.3	838.4	866.9	938.2	1049.0	1085.6	1000.5	989.9	961.0	993.5	1090.7
57.5°	793.1	800.5	846.4	934.1	1090.7	1166.5	1123.5	1108.4	1067.0	1086.6	1210.8
60°	742.7	746.2	806.9	919.3	1102.0	1222.7	1252.6	1243.9	1172.9	1184.5	1299.8
62.5°	686.8	678.5	741.4	907.1	1089.5	1300.1	1377.8	1371.1	1287.3	1283.7	1363.0
65°	530.8	542.3	595.9	749.7	1003.7	1360.5	1527.1	1518.4	1414.7	1365.6	1356.3
67.5°	341.0	338.8	376.6	501.2	750.1	1236.5	1605.1	1614.8	1487.6	1402.5	1263.2
70°	122.3	125.9	140.0	227.7	411.3	823.9	1415.1	1462.9	1434.0	1333.5	1028.1
72.5°	74.5	74.5	84.8	102.4	166.6	390.8	1008.5	1103.3	1170.4	1098.8	759.4
75°	58.4	58.1	61.6	70.6	89.9	128.1	536.2	609.4	750.7	759.1	432.2
77.5°	46.2	45.9	49.4	53.6	67.1	67.8	171.1	222.8	344.5	324.3	154.4
80°	37.2	36.9	39.5	40.8	49.1	46.9	68.7	79.6	120.7	106.0	66.8
82.5°	33.7	33.7	36.3	31.1	34.0	33.1	42.7	45.6	60.7	62.9	40.1
85°	21.8	22.5	34.0	30.2	22.2	20.2	27.3	28.9	37.9	41.4	19.6
87.5°	10.3	11.2	26.0	25.0	14.8	10.9	15.4	16.4	20.5	25.4	11.6
90°	6.9	6.9	10.2	11.5	9.9	8.9	9.6	9.6	11.2	12.2	10.2
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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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°	293.8	293.8	293.8	293.8	293.8	293.8	293.8	293.8	293.8	293.8	293.8
2.5°	293.2	292.5	292.8	293.2	293.5	294.4	294.8	294.8	294.8	294.4	295.1
5°	289.6	289.0	289.0	289.9	290.9	292.2	294.1	295.7	296.4	296.7	296.7
7.5°	285.8	285.1	285.5	287.1	288.7	289.6	291.6	292.5	295.1	295.1	295.7
10°	283.2	283.8	284.2	285.8	287.1	287.1	286.7	286.1	285.5	287.1	286.4
12.5°	281.6	282.6	282.2	284.2	284.8	282.2	278.4	273.2	272.6	273.2	273.9
15°	281.0	281.0	281.9	281.9	278.7	273.6	268.8	269.1	269.7	271.6	271.6
17.5°	281.0	281.3	281.9	279.7	273.9	269.4	268.4	267.5	263.9	263.0	262.0
20°	283.2	282.6	283.2	279.0	273.9	270.4	263.0	255.9	249.2	246.3	245.0
22.5°	288.7	287.7	287.4	283.2	276.8	264.9	250.5	239.5	228.0	224.1	222.8
25°	298.3	298.0	295.7	292.8	274.9	251.7	233.4	216.1	203.6	196.8	197.2
27.5°	315.3	315.3	314.0	301.2	264.9	235.4	210.6	193.0	180.1	173.7	172.7
30°	341.0	341.6	342.3	303.4	249.2	211.3	185.6	173.7	166.0	161.2	160.9
32.5°	372.8	376.3	372.1	300.9	227.7	182.1	166.0	161.8	158.0	154.8	154.4
35°	414.9	424.5	398.2	290.6	203.6	162.2	154.1	151.2	148.3	146.1	146.4
37.5°	471.4	480.7	414.9	273.2	172.7	150.9	147.4	142.9	138.4	133.6	132.9
40°	538.2	535.3	420.6	240.5	153.5	145.5	140.6	134.9	127.2	120.1	118.8
42.5°	604.9	585.7	415.8	200.0	141.0	140.6	133.9	126.5	118.8	112.7	112.7
45°	679.8	630.0	401.0	162.2	131.0	135.5	127.2	119.4	112.4	107.9	107.6
47.5°	750.4	671.4	376.6	135.2	121.1	128.8	122.0	115.0	108.2	104.4	103.4
50°	833.2	718.6	358.0	116.9	111.4	122.0	119.1	112.7	106.3	101.8	101.1
52.5°	917.0	764.5	343.9	104.4	102.7	116.9	117.8	114.0	107.2	98.6	97.9
55°	1004.7	822.0	315.6	94.4	95.0	113.0	119.4	116.6	111.7	97.6	97.0
57.5°	1078.2	875.0	266.2	87.7	88.9	110.1	120.1	114.6	109.2	98.3	97.3
60°	1135.7	911.3	195.2	82.2	83.5	106.9	117.2	107.9	100.8	98.3	96.6
62.5°	1153.4	912.5	129.7	75.8	79.3	101.5	112.1	104.4	96.0	97.3	96.6
65°	1109.1	864.4	92.8	69.7	75.8	95.0	109.8	100.8	93.8	98.9	98.3
67.5°	972.6	728.2	74.5	64.9	71.0	88.3	105.6	97.6	91.8	102.4	100.5
70°	757.8	522.4	63.3	60.0	65.8	81.9	99.9	94.1	89.3	99.5	97.0
72.5°	499.6	307.6	55.9	55.5	59.7	76.4	93.4	90.9	85.1	90.2	86.4
75°	260.7	142.6	48.5	50.4	53.0	71.6	87.7	85.1	78.7	80.6	79.3
77.5°	102.4	66.8	42.1	44.3	47.2	64.5	80.3	77.7	72.2	70.6	70.3
80°	56.2	45.0	35.0	37.9	39.8	58.1	72.6	69.7	63.9	62.9	62.0
82.5°	35.6	29.2	28.9	30.8	33.4	51.7	65.2	60.7	55.9	65.8	53.3
85°	16.7	17.3	20.5	23.1	26.0	44.0	56.8	52.0	47.2	45.9	40.8
87.5°	9.3	11.6	13.5	15.7	18.0	30.8	45.0	40.5	35.3	30.2	31.1
90°	9.2	9.2	12.9	12.5	10.9	11.5	30.2	27.9	24.7	13.3	10.5
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



REPORT NUMBER: P226444

CATALOG NUMBER: IST-AF-350-LED-E1-T3-7030-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)