

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: P226440

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P226440
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-ULG
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE WITH UPLIGHT
LIGHT SQUARE WITH ACCULED OPTICS-TYPE III, WITH UPLIGHT GLOW
Light Source: (16) 4000K CCT, 70 CRI LEDs and (1) UPLIGHT LED
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4338.1 lumens
Efficiency: N/A
Efficacy: 117.9 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

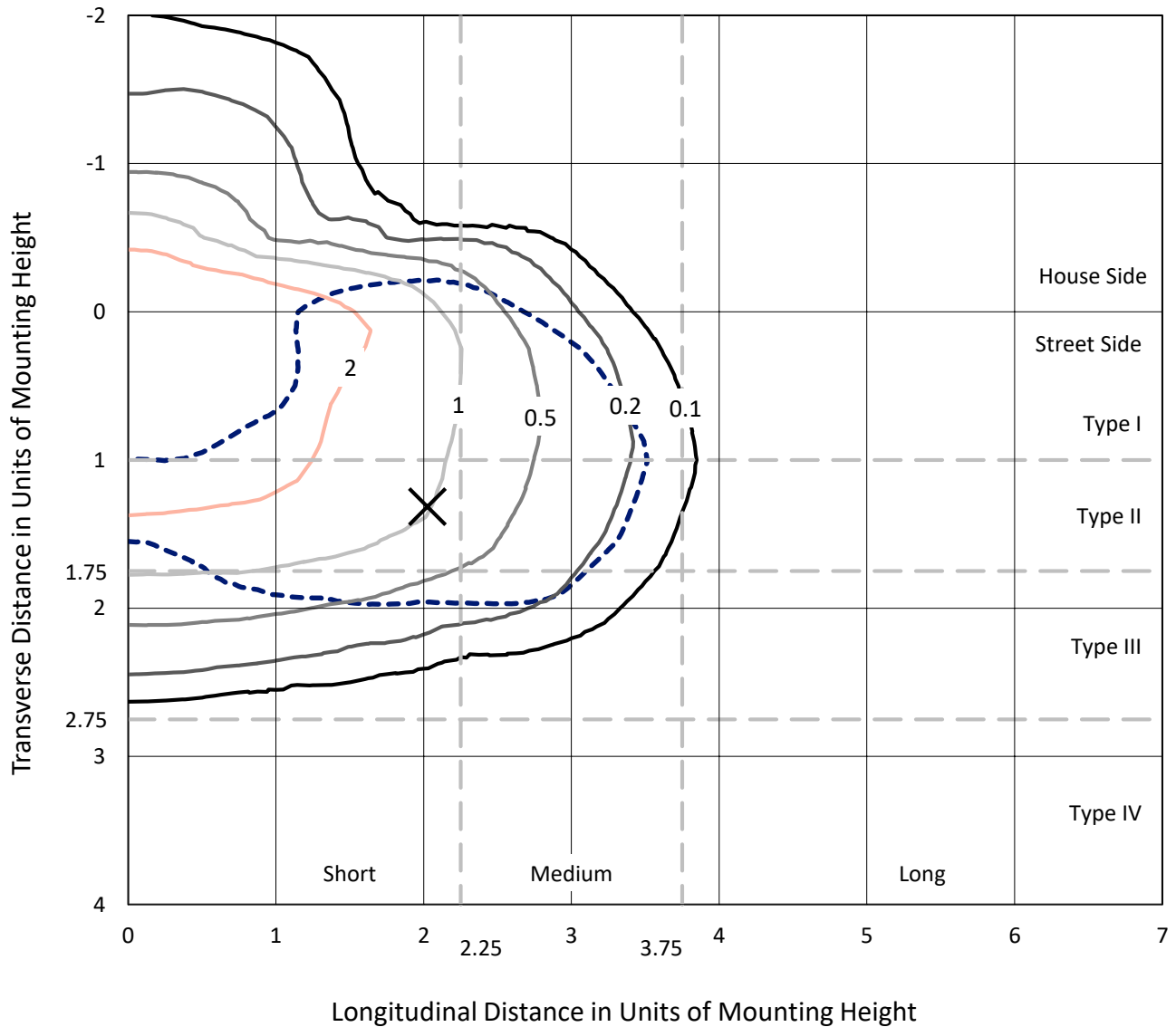
Input Watts (W): 36.79
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

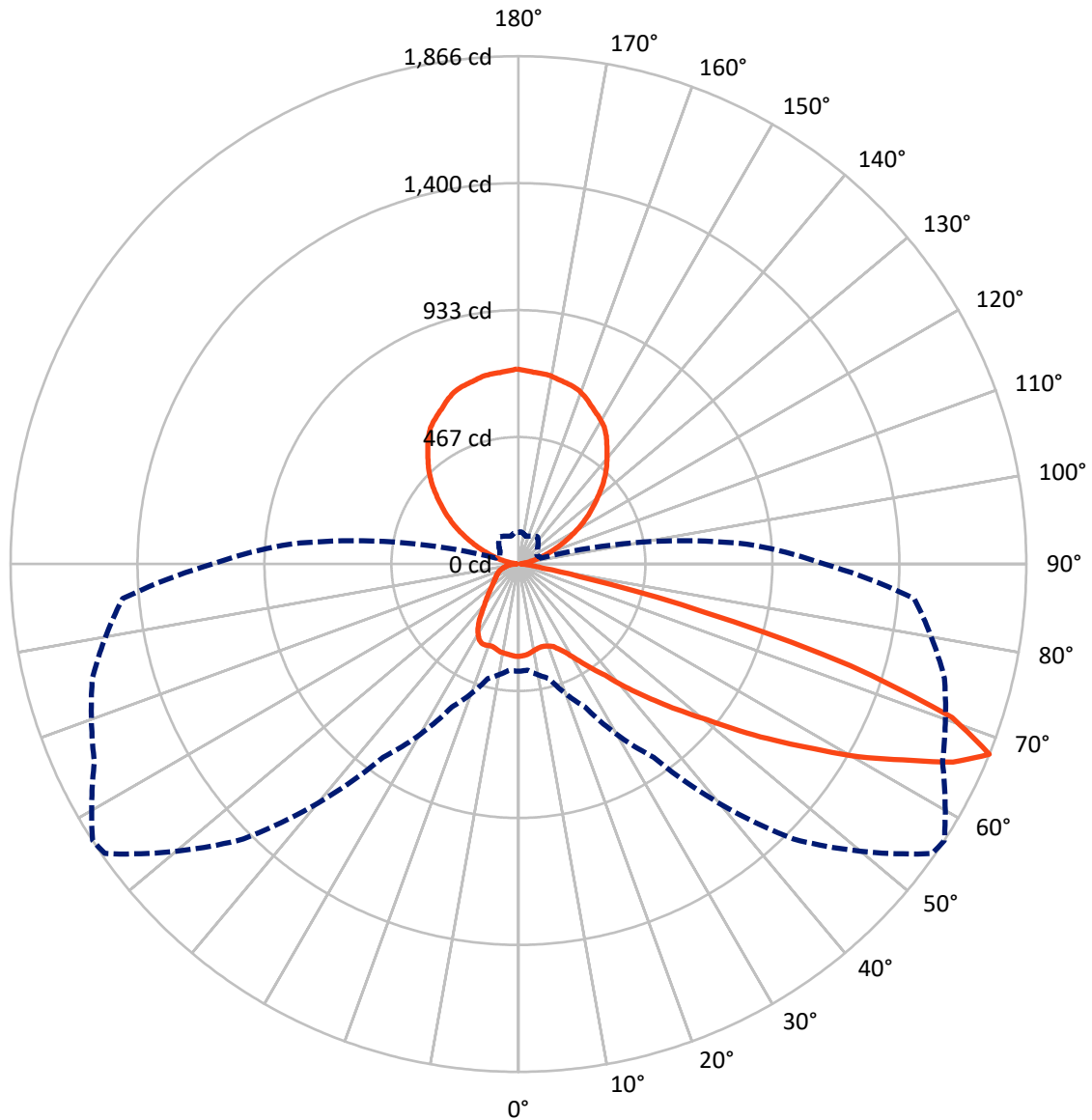
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.6 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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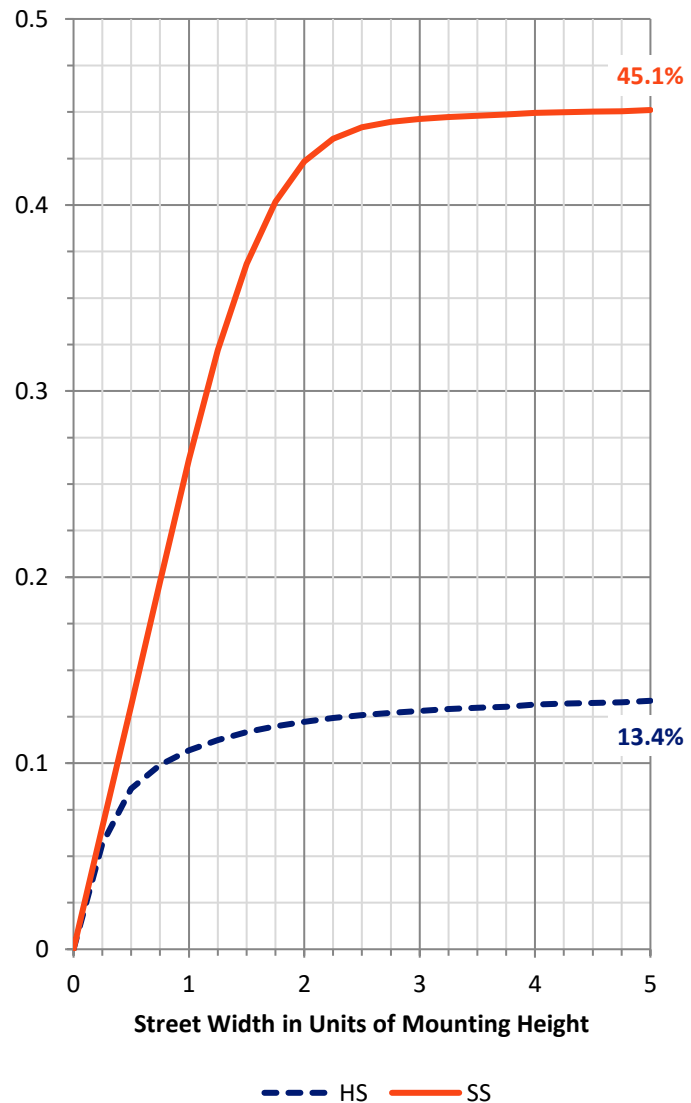
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	596.7	888.2	1485.0
	% Fixture	13.8	20.5	34.2
Street Side	Lumens	1965.4	887.7	2853.1
	% Fixture	45.3	20.5	65.8
Total	Lumens	2562.1	1775.9	4338.1
	% Fixture	59.1	40.9	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.7	0.7
10°-20°	91.3	2.1
20°-30°	157.1	3.6
30°-40°	255.4	5.9
40°-50°	411.9	9.5
50°-60°	614.1	14.2
60°-70°	691.6	15.9
70°-80°	266.7	6.1
80°-90°	42.4	1.0
90°-100°	10.4	0.2
100°-110°	58.7	1.4
110°-120°	169.9	3.9
120°-130°	279.4	6.4
130°-140°	344.6	7.9
140°-150°	352.5	8.1
150°-160°	297.0	6.8
160°-170°	195.5	4.5
170°-180°	67.8	1.6
0°-90°	2562.1	59.1
0°-180°	4338.1	100.0



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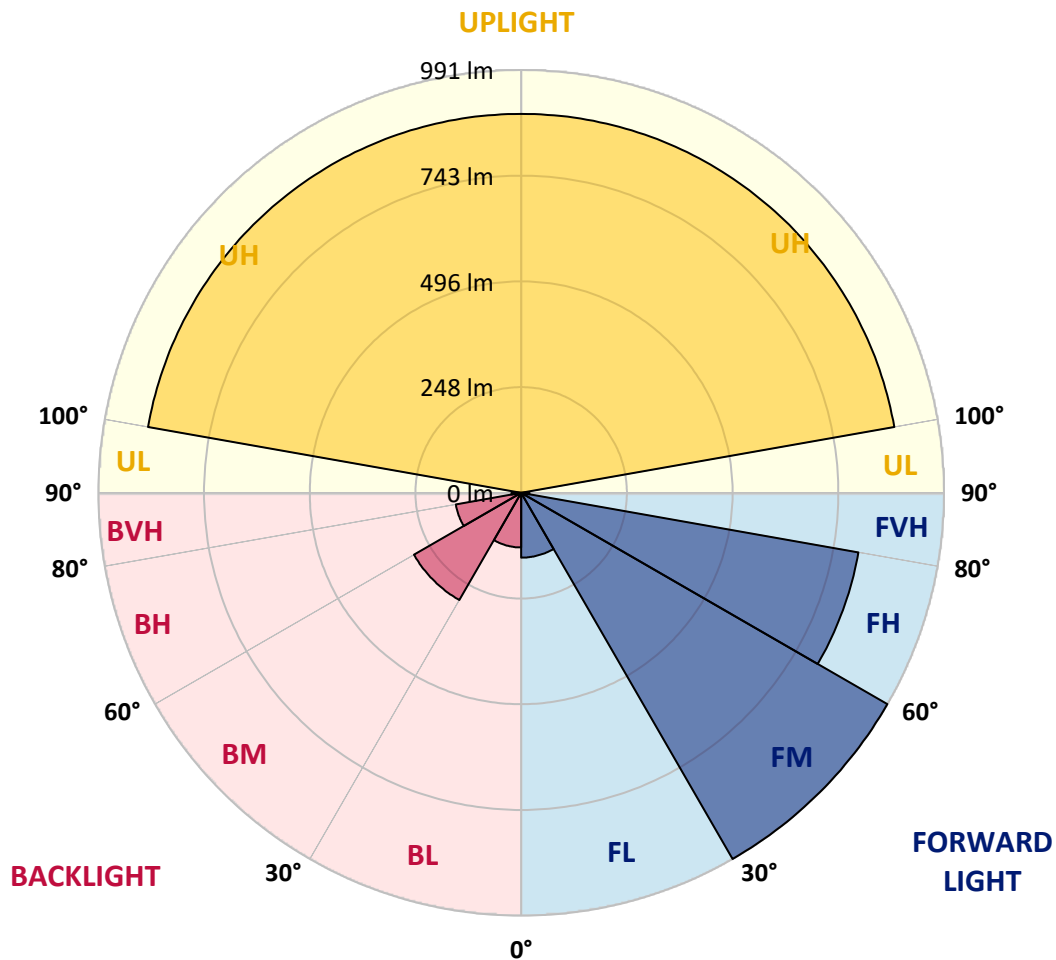
CATALOG NUMBER: IST-AF-350-LED-E1-T3-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	152.0	3.5			
FM (30°-60°)	991.2	22.8			
FH (60°-80°)	802.7	18.5			G1/1800
FVH (80°-90°)	19.5	0.4			G1/100
BL (0°-30°)	128.1	3.0	B1/500		
BM (30°-60°)	290.2	6.7	B1/1000		
BH (60°-80°)	155.6	3.6	B1/500		G1/500
BVH (80°-90°)	22.9	0.5			G1/100
UL (90°-100°)	10.4	0.2		U2/50	
UH (100°-180°)	888.2	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°	339.5	339.5	339.5	339.5	339.5	339.5	339.5	339.5	339.5	339.5	339.5
2.5°	337.0	337.7	338.4	338.1	338.1	338.1	338.1	337.3	338.4	338.4	337.7
5°	331.3	331.7	332.0	332.9	333.6	334.3	334.7	334.7	335.0	334.7	334.0
7.5°	323.2	323.6	325.1	325.1	325.8	327.2	328.1	328.8	329.9	329.9	329.5
10°	320.6	320.6	320.6	319.5	320.2	320.6	321.7	321.7	324.7	326.1	326.9
12.5°	323.6	323.2	323.2	320.2	317.6	316.5	317.6	318.0	321.3	323.6	325.1
15°	330.2	330.2	329.5	325.1	319.9	315.8	315.4	315.4	318.0	321.3	324.0
17.5°	345.9	347.3	342.1	335.0	326.5	319.9	317.2	316.9	318.8	321.3	324.0
20°	375.5	375.1	367.3	354.8	339.9	328.8	322.4	321.7	321.3	322.8	325.8
22.5°	410.7	409.3	400.0	384.0	363.7	343.2	331.0	329.5	326.5	327.7	331.7
25°	448.6	449.0	437.5	416.8	391.1	366.6	348.0	346.6	340.2	339.5	344.0
27.5°	486.4	491.3	475.7	456.0	425.6	396.3	369.2	366.9	361.4	359.6	364.0
30°	541.8	539.9	520.6	495.0	464.5	427.8	401.8	397.8	386.7	389.2	394.0
32.5°	588.5	592.6	575.1	544.7	504.6	466.1	436.0	433.7	423.0	426.0	432.6
35°	645.7	655.3	632.3	594.8	556.2	516.5	480.5	474.5	466.1	472.0	477.2
37.5°	711.0	715.8	698.0	649.7	610.4	568.9	528.0	518.7	509.4	521.7	531.0
40°	773.2	781.1	758.1	717.3	671.6	631.9	587.4	585.5	564.1	577.4	601.5
42.5°	865.7	875.3	838.6	791.0	749.9	702.1	659.7	649.7	626.4	645.3	685.7
45°	930.3	929.9	905.0	865.7	840.5	794.1	736.9	725.1	699.8	725.1	779.2
47.5°	953.6	959.2	950.6	945.8	936.9	903.2	819.0	807.8	784.1	821.5	871.7
50°	988.2	986.6	986.6	1016.3	1042.0	1034.9	915.0	899.1	874.2	919.1	991.1
52.5°	997.1	983.7	1004.4	1061.2	1142.5	1148.5	1026.7	1017.8	988.2	1032.0	1120.6
55°	972.2	968.8	1001.9	1084.2	1212.3	1254.5	1156.2	1144.0	1110.6	1148.1	1260.5
57.5°	916.6	925.1	978.1	1079.4	1260.5	1348.0	1298.3	1280.9	1233.1	1255.7	1399.3
60°	858.3	862.3	932.5	1062.3	1273.5	1413.0	1447.5	1437.5	1355.5	1368.8	1502.0
62.5°	793.7	784.1	856.8	1048.2	1259.0	1502.4	1592.2	1584.4	1487.6	1483.5	1575.1
65°	613.4	626.8	688.7	866.4	1159.9	1572.2	1764.8	1754.8	1634.9	1578.1	1567.4
67.5°	394.0	391.5	435.3	579.2	866.7	1429.0	1854.9	1866.1	1719.1	1620.8	1459.8
70°	141.4	145.5	161.8	263.1	475.4	952.2	1635.3	1690.5	1657.2	1541.0	1188.2
72.5°	86.1	86.1	98.0	118.4	192.6	451.5	1165.4	1275.0	1352.5	1269.8	877.6
75°	67.5	67.2	71.2	81.6	103.9	148.0	619.7	704.3	867.6	877.2	499.4
77.5°	53.4	53.1	57.2	62.0	77.5	78.3	197.7	257.5	398.1	374.8	178.5
80°	43.1	42.7	45.6	47.2	56.8	54.2	79.4	92.1	139.5	122.4	77.1
82.5°	39.0	39.0	41.9	36.0	39.3	38.3	49.3	52.7	70.2	72.7	46.3
85°	25.3	26.0	39.3	34.9	25.6	23.4	31.5	33.3	43.8	47.9	22.6
87.5°	11.9	13.0	30.1	28.9	17.1	12.6	17.8	18.9	23.7	29.4	13.4
90°	7.4	7.4	10.8	12.3	10.4	9.4	10.1	10.1	11.8	12.9	10.8
92.5°	4.1	4.1	5.1	6.1	6.1	6.1	7.2	7.2	7.2	6.1	6.1
95°	5.1	5.1	6.1	7.2	7.2	7.2	7.2	7.4	8.2	7.2	7.2
97.5°	7.2	7.2	8.2	8.2	9.2	9.2	12.3	11.9	10.2	9.2	8.2
100°	8.2	8.2	9.2	10.2	12.3	21.5	29.7	29.1	26.6	23.5	19.4
102.5°	11.3	11.3	13.3	18.4	27.6	40.9	51.1	50.5	48.1	43.0	39.9
105°	21.5	22.5	27.6	36.8	49.1	64.4	73.7	73.2	71.6	66.5	62.4
107.5°	41.9	43.0	50.1	59.3	74.7	90.0	97.2	97.0	96.2	92.1	89.0
110°	67.5	69.6	75.7	89.0	104.3	116.6	122.8	123.0	123.8	121.7	118.7



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

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
112.5°	101.3	101.3	108.4	123.8	137.1	146.3	151.4	151.8	153.4	152.4	150.4
115°	143.2	142.2	150.4	162.6	171.9	178.0	183.1	183.7	186.2	183.1	181.1
117.5°	188.2	188.2	193.3	201.5	206.6	209.7	215.8	216.7	219.9	214.8	212.8
120°	230.2	228.1	231.2	238.3	242.4	248.6	251.6	252.5	255.7	250.6	248.6
122.5°	269.0	266.0	267.0	273.1	277.2	283.4	285.4	286.2	289.5	284.4	282.3
125°	304.8	300.7	302.8	305.9	312.0	317.1	320.2	320.6	322.2	317.1	317.1
127.5°	337.6	336.6	336.6	340.6	346.8	347.8	352.9	353.1	353.9	353.9	352.9
130°	371.3	369.3	370.3	374.4	378.5	380.5	385.7	386.5	389.7	389.7	387.7
132.5°	405.1	403.0	402.0	410.2	413.3	414.3	420.4	421.5	425.5	423.5	423.5
135°	438.8	435.8	435.8	441.9	445.0	447.0	453.2	454.2	458.3	457.3	460.3
137.5°	470.6	467.5	469.5	470.6	474.6	478.7	483.9	484.3	485.9	486.9	492.0
140°	499.2	496.1	498.2	500.2	502.3	508.4	511.5	511.9	513.5	515.6	520.7
142.5°	529.9	526.8	528.9	529.9	533.0	537.0	539.1	540.3	545.2	545.2	546.3
145°	562.6	558.5	556.5	559.6	562.6	563.6	568.8	570.0	574.9	573.9	570.8
147.5°	588.2	585.1	584.1	587.2	587.2	588.2	593.3	594.3	598.4	599.4	596.4
150°	608.7	605.6	606.6	606.6	606.6	606.6	610.7	611.3	613.8	616.8	619.9
152.5°	625.0	622.0	622.0	623.0	624.0	624.0	625.0	625.6	628.1	632.2	637.3
155°	643.4	639.3	639.3	641.4	644.5	642.4	640.4	641.4	645.5	650.6	652.6
157.5°	660.8	657.8	657.8	658.8	660.8	659.8	658.8	659.6	662.9	664.9	664.9
160°	678.2	675.1	674.1	671.1	670.0	670.0	673.1	674.3	679.2	676.2	675.1
162.5°	688.4	684.4	684.4	680.3	676.2	678.2	682.3	683.1	686.4	685.4	683.3
165°	696.6	693.6	691.5	691.5	688.4	688.4	687.4	688.4	692.5	695.6	693.6
167.5°	705.8	702.8	699.7	701.7	703.8	700.7	693.6	694.8	699.7	703.8	703.8
170°	714.0	711.0	707.9	707.9	708.9	706.9	701.7	702.4	704.8	709.9	712.0
172.5°	715.0	713.0	711.0	708.9	705.8	705.8	704.8	705.4	707.9	709.9	712.0
175°	716.1	714.0	713.0	711.0	706.9	705.8	705.8	706.9	711.0	712.0	709.9
177.5°	723.2	721.2	716.1	715.0	713.0	711.0	709.9	711.0	715.0	717.1	714.0
180°	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	339.5	339.5	339.5	339.5	339.5	339.5	339.5	339.5	339.5	339.5	339.5
2.5°	338.8	338.1	338.4	338.8	339.1	340.2	340.6	340.6	340.6	340.2	341.1
5°	334.7	334.0	334.0	335.0	336.1	337.7	339.9	341.8	342.5	342.9	342.9
7.5°	330.2	329.5	329.9	331.7	333.6	334.7	337.0	338.1	341.1	341.1	341.8
10°	327.2	328.1	328.4	330.2	331.7	331.7	331.3	330.6	329.9	331.7	331.0
12.5°	325.4	326.5	326.1	328.4	329.1	326.1	321.7	315.8	315.1	315.8	316.5
15°	324.7	324.7	325.8	325.8	322.1	316.1	310.6	311.0	311.7	313.9	313.9
17.5°	324.7	325.1	325.8	323.2	316.5	311.3	310.2	309.1	305.0	303.9	302.8
20°	327.2	326.5	327.2	322.4	316.5	312.4	303.9	295.7	288.0	284.6	283.2
22.5°	333.6	332.5	332.0	327.2	319.9	306.2	289.4	276.8	263.4	259.0	257.5
25°	344.7	344.3	341.8	338.4	317.6	290.9	269.8	249.7	235.3	227.5	227.8
27.5°	364.4	364.4	362.9	348.0	306.2	272.0	243.5	223.0	208.2	200.7	199.7
30°	394.0	394.8	395.6	350.7	288.0	244.2	214.5	200.7	191.8	186.3	185.9
32.5°	430.8	434.9	430.0	347.7	263.1	210.4	191.8	187.0	182.6	178.8	178.5
35°	479.5	490.5	460.1	335.8	235.3	187.4	178.1	174.7	171.4	168.8	169.2
37.5°	544.7	555.5	479.5	315.8	199.7	174.4	170.3	165.1	159.9	154.4	153.6
40°	621.9	618.6	486.1	277.9	177.4	168.1	162.5	155.8	146.9	138.8	137.3
42.5°	699.1	676.8	480.5	231.2	162.9	162.5	154.8	146.2	137.3	130.2	130.2
45°	785.5	728.0	463.5	187.4	151.4	156.6	146.9	138.0	129.9	124.7	124.3
47.5°	867.2	775.9	435.3	156.2	139.9	148.8	141.0	132.9	125.0	120.6	119.5
50°	962.9	830.4	413.7	135.0	128.8	141.0	137.7	130.2	122.9	117.6	116.9
52.5°	1059.8	883.5	397.4	120.6	118.8	135.0	136.2	131.8	124.0	114.0	113.1
55°	1161.0	949.9	364.8	109.0	109.9	130.6	138.0	134.7	129.1	112.8	112.0
57.5°	1246.1	1011.1	307.6	101.3	102.8	127.3	138.8	132.5	126.1	113.5	112.4
60°	1312.4	1053.0	225.6	95.0	96.5	123.6	135.4	124.7	116.5	113.5	111.7
62.5°	1332.8	1054.6	149.9	87.6	91.7	117.2	129.5	120.6	111.0	112.4	111.7
65°	1281.7	998.9	107.2	80.5	87.6	109.9	126.9	116.5	108.3	114.3	113.5
67.5°	1123.9	841.6	86.1	75.0	82.0	102.1	122.0	112.8	106.1	118.4	116.1
70°	875.7	603.7	73.1	69.4	76.1	94.6	115.4	108.7	103.1	115.0	112.0
72.5°	577.4	355.5	64.5	64.2	69.0	88.3	108.0	105.1	98.3	104.2	99.8
75°	301.3	164.8	56.1	58.2	61.3	82.8	101.3	98.3	90.9	93.1	91.7
77.5°	118.4	77.1	48.6	51.2	54.5	74.6	92.8	89.8	83.5	81.6	81.2
80°	65.0	52.0	40.4	43.8	46.0	67.2	83.9	80.5	73.9	72.7	71.6
82.5°	41.2	33.8	33.3	35.6	38.6	59.7	75.3	70.2	64.5	76.1	61.6
85°	19.3	20.0	23.7	26.7	30.1	50.8	65.7	60.1	54.5	53.1	47.2
87.5°	10.7	13.4	15.5	18.2	20.8	35.6	52.0	46.7	40.8	34.9	36.0
90°	9.7	9.7	13.7	13.3	11.7	12.4	33.8	31.2	27.6	14.7	11.5
92.5°	6.1	6.1	6.1	7.2	7.2	6.1	6.1	6.1	5.1	4.1	4.1
95°	7.2	7.2	7.2	8.2	7.2	7.2	7.2	7.2	6.1	5.1	5.1
97.5°	8.2	8.2	9.2	10.2	12.3	9.2	9.2	8.2	8.2	7.2	7.2
100°	19.4	19.4	23.5	26.6	29.7	21.5	12.3	10.2	9.2	8.2	8.2
102.5°	38.9	39.9	43.0	48.1	51.1	40.9	27.6	18.4	13.3	11.3	11.3
105°	62.4	62.4	66.5	71.6	73.7	64.4	49.1	36.8	27.6	22.5	21.5
107.5°	88.0	89.0	92.1	96.2	97.2	90.0	74.7	59.3	50.1	43.0	41.9
110°	119.7	118.7	121.7	123.8	122.8	116.6	104.3	89.0	75.7	69.6	67.5



REPORT NUMBER: P226440

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

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	150.4	150.4	152.4	153.4	151.4	146.3	137.1	123.8	108.4	101.3	101.3
115°	182.1	181.1	183.1	186.2	183.1	178.0	171.9	162.6	150.4	142.2	143.2
117.5°	213.8	212.8	214.8	219.9	215.8	209.7	206.6	201.5	193.3	188.2	188.2
120°	248.6	248.6	250.6	255.7	251.6	248.6	242.4	238.3	231.2	228.1	230.2
122.5°	283.4	282.3	284.4	289.5	285.4	283.4	277.2	273.1	267.0	266.0	269.0
125°	317.1	317.1	317.1	322.2	320.2	317.1	312.0	305.9	302.8	300.7	304.8
127.5°	355.0	352.9	353.9	353.9	352.9	347.8	346.8	340.6	336.6	336.6	337.6
130°	388.7	387.7	389.7	389.7	385.7	380.5	378.5	374.4	370.3	369.3	371.3
132.5°	424.5	423.5	423.5	425.5	420.4	414.3	413.3	410.2	402.0	403.0	405.1
135°	461.4	460.3	457.3	458.3	453.2	447.0	445.0	441.9	435.8	435.8	438.8
137.5°	493.1	492.0	486.9	485.9	483.9	478.7	474.6	470.6	469.5	467.5	470.6
140°	522.7	520.7	515.6	513.5	511.5	508.4	502.3	500.2	498.2	496.1	499.2
142.5°	548.3	546.3	545.2	545.2	539.1	537.0	533.0	529.9	528.9	526.8	529.9
145°	572.9	570.8	573.9	574.9	568.8	563.6	562.6	559.6	556.5	558.5	562.6
147.5°	598.4	596.4	599.4	598.4	593.3	588.2	587.2	587.2	584.1	585.1	588.2
150°	624.0	619.9	616.8	613.8	610.7	606.6	606.6	606.6	606.6	605.6	608.7
152.5°	642.4	637.3	632.2	628.1	625.0	624.0	624.0	623.0	622.0	622.0	625.0
155°	655.7	652.6	650.6	645.5	640.4	642.4	644.5	641.4	639.3	639.3	643.4
157.5°	670.0	664.9	664.9	662.9	658.8	659.8	660.8	658.8	657.8	657.8	660.8
160°	681.3	675.1	676.2	679.2	673.1	670.0	670.0	671.1	674.1	675.1	678.2
162.5°	689.5	683.3	685.4	686.4	682.3	678.2	676.2	680.3	684.4	684.4	688.4
165°	697.7	693.6	695.6	692.5	687.4	688.4	688.4	691.5	691.5	693.6	696.6
167.5°	709.9	703.8	703.8	699.7	693.6	700.7	703.8	701.7	699.7	702.8	705.8
170°	717.1	712.0	709.9	704.8	701.7	706.9	708.9	707.9	707.9	711.0	714.0
172.5°	717.1	712.0	709.9	707.9	704.8	705.8	705.8	708.9	711.0	713.0	715.0
175°	715.0	709.9	712.0	711.0	705.8	705.8	706.9	711.0	713.0	714.0	716.1
177.5°	718.1	714.0	717.1	715.0	709.9	711.0	713.0	715.0	716.1	721.2	723.2
180°	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1	716.1

(END OF REPORT)