

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: P271698

Luminaire Tested: **IST-AF-350-LED-E1-T3-7027-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P271698
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-T3-7027-ULG
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE WITH UPLIGHT
LIGHT SQUARE WITH ACCULED OPTICS-TYPE III, 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: 3880 lumens
Efficiency: N/A
Efficacy: 105.5 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

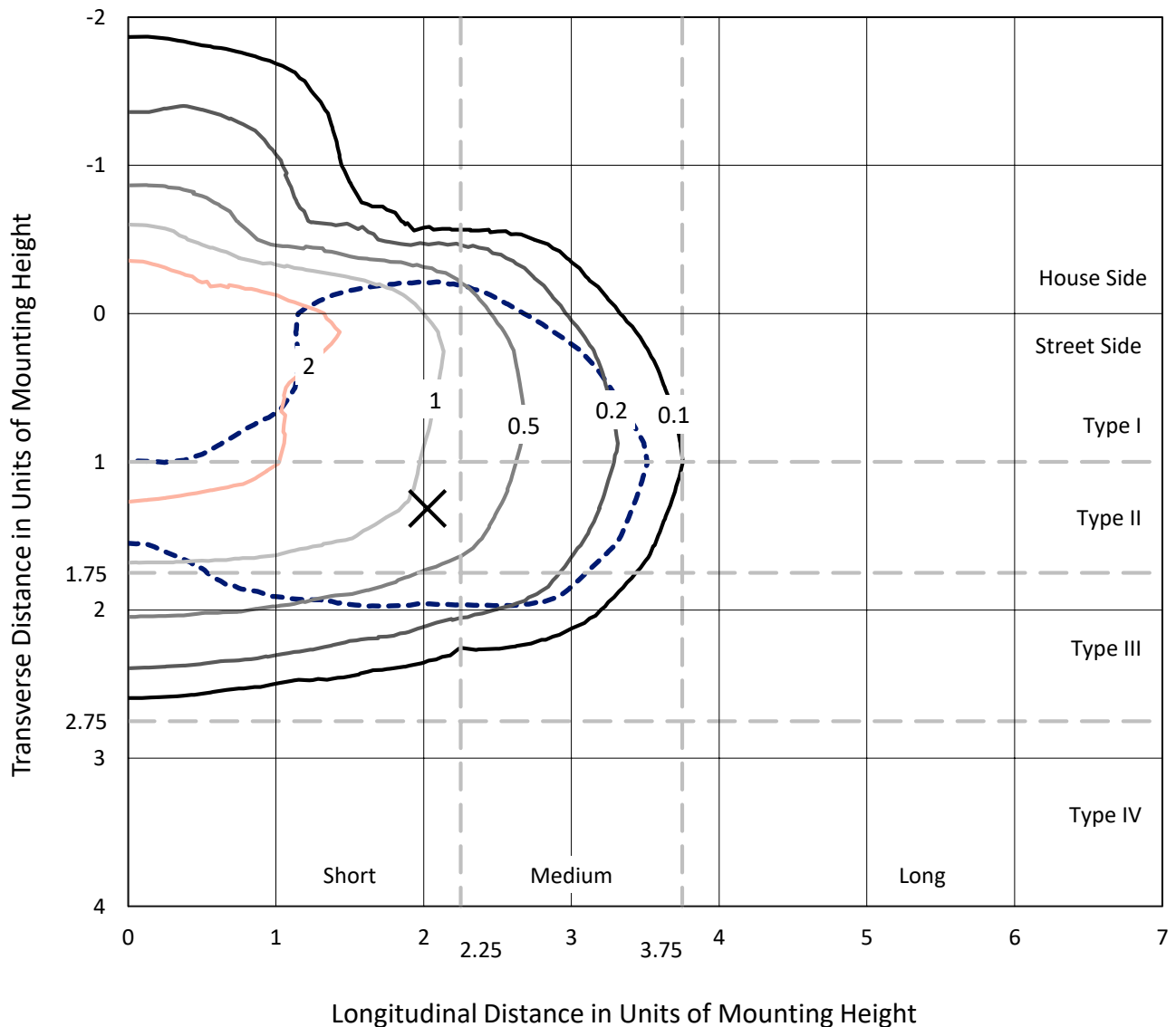
Input Watts (W): 36.79
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

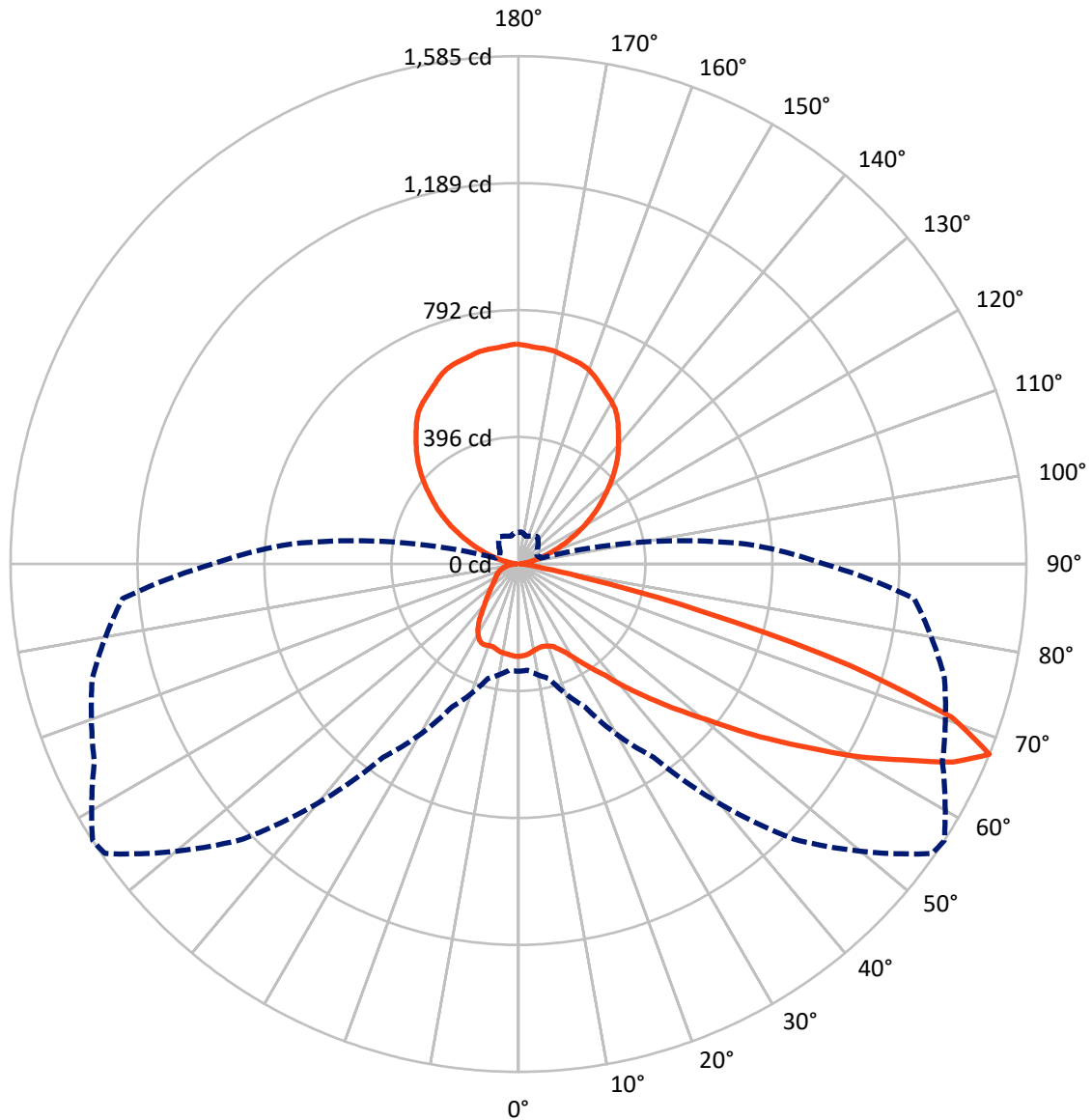
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3 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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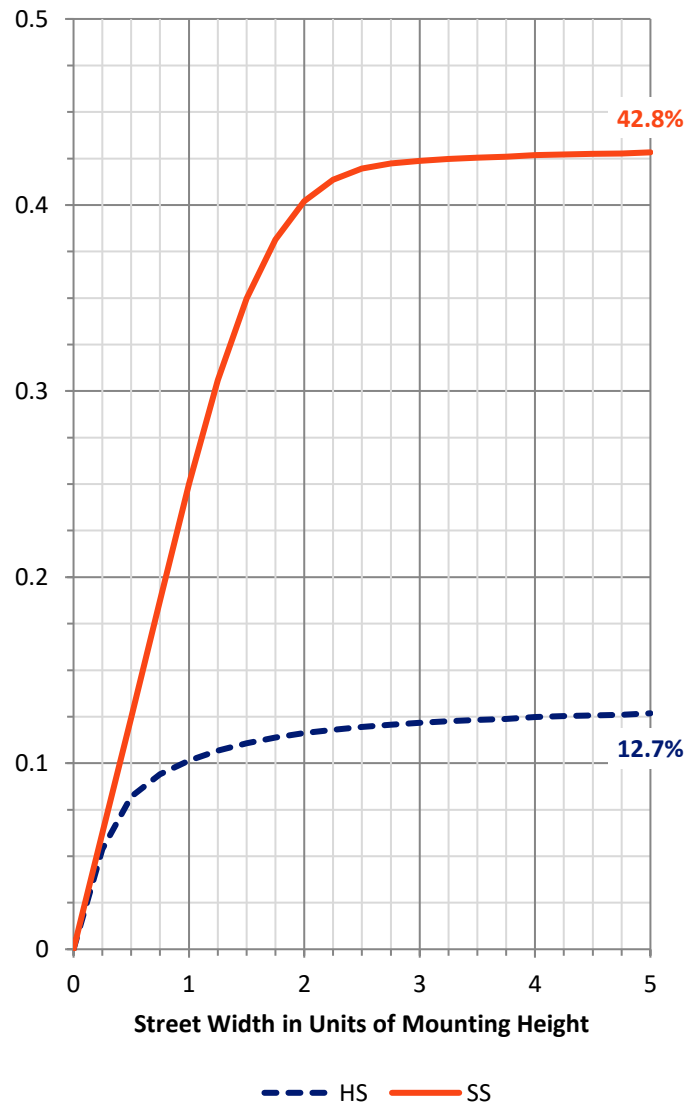
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	506.9	852.1	1359.0
	% Fixture	13.1	22.0	35.0
Street Side	Lumens	1669.3	851.7	2520.9
	% Fixture	43.0	22.0	65.0
Total	Lumens	2176.2	1703.8	3880.0
	% Fixture	56.1	43.9	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.0	0.7
10°-20°	77.5	2.0
20°-30°	133.4	3.4
30°-40°	216.9	5.6
40°-50°	349.8	9.0
50°-60°	521.6	13.4
60°-70°	587.4	15.1
70°-80°	226.5	5.8
80°-90°	36.1	0.9
90°-100°	9.9	0.3
100°-110°	56.3	1.5
110°-120°	163.0	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°	2176.2	56.1
0°-180°	3880.0	100.0



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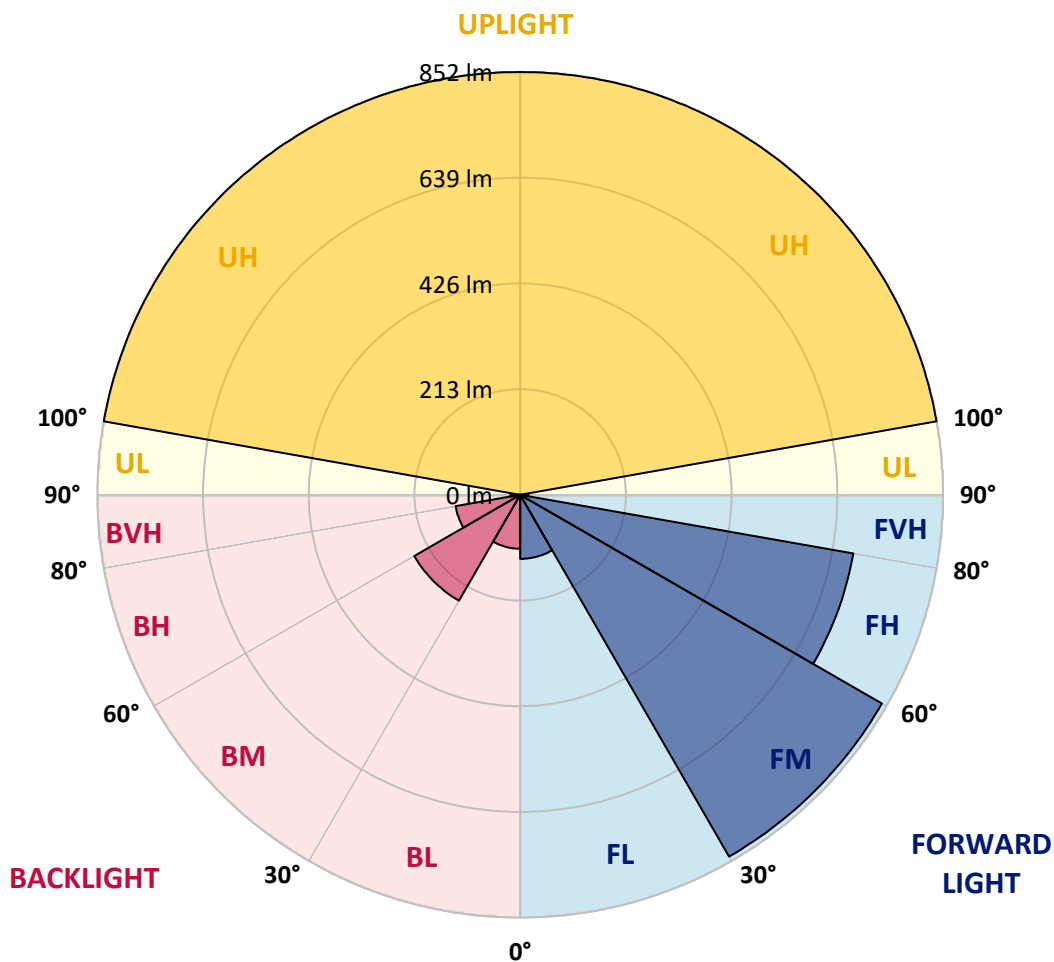
CATALOG NUMBER: IST-AF-350-LED-E1-T3-7027-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	129.1	3.3			
FM	(30°-60°)	841.8	21.7			
FH	(60°-80°)	681.8	17.6			G1/1800
FVH	(80°-90°)	16.6	0.4			G1/100
BL	(0°-30°)	108.8	2.8	B0/110		
BM	(30°-60°)	246.5	6.4	B1/1000		
BH	(60°-80°)	132.1	3.4	B1/500		G1/500
BVH	(80°-90°)	19.5	0.5			G1/100
UL	(90°-100°)	9.9	0.3		U1/10	
UH	(100°-180°)	852.1	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°	288.4	288.4	288.4	288.4	288.4	288.4	288.4	288.4	288.4	288.4	288.4
2.5°	286.2	286.8	287.4	287.1	287.1	287.1	287.1	286.5	287.4	287.4	286.8
5°	281.3	281.8	282.1	282.7	283.3	284.0	284.2	284.2	284.5	284.2	283.7
7.5°	274.5	274.8	276.0	276.0	276.7	277.9	278.6	279.2	280.2	280.2	279.8
10°	272.3	272.3	272.3	271.4	272.0	272.3	273.3	273.3	275.8	276.9	277.7
12.5°	274.8	274.5	274.5	272.0	269.9	268.9	269.9	270.1	272.9	274.8	276.0
15°	280.5	280.5	279.8	276.0	271.6	268.1	267.9	267.9	270.1	272.9	275.2
17.5°	293.7	294.9	290.5	284.5	277.4	271.6	269.4	269.1	270.7	272.9	275.2
20°	318.9	318.6	312.0	301.3	288.6	279.2	273.8	273.3	272.9	274.3	276.7
22.5°	348.8	347.6	339.6	326.2	308.8	291.5	281.1	279.8	277.4	278.3	281.8
25°	381.0	381.3	371.6	353.9	332.1	311.4	295.6	294.4	289.0	288.4	292.2
27.5°	413.2	417.3	404.0	387.3	361.5	336.5	313.6	311.7	307.0	305.3	309.2
30°	460.1	458.6	442.1	420.4	394.5	363.4	341.3	337.9	328.4	330.6	334.7
32.5°	499.9	503.3	488.5	462.6	428.6	395.8	370.3	368.5	359.2	361.7	367.5
35°	548.3	556.5	537.0	505.2	472.4	438.7	408.1	403.1	395.8	400.8	405.2
37.5°	603.8	608.0	592.8	551.8	518.4	483.1	448.4	440.6	432.7	443.1	450.9
40°	656.8	663.4	643.8	609.2	570.4	536.6	498.9	497.3	479.1	490.4	510.9
42.5°	735.3	743.4	712.3	671.9	636.9	596.3	560.4	551.8	532.0	548.1	582.4
45°	790.1	789.8	768.6	735.3	713.8	674.4	625.8	615.8	594.4	615.8	661.8
47.5°	809.9	814.7	807.4	803.4	795.8	767.1	695.5	686.0	665.9	697.7	740.2
50°	839.3	838.0	838.0	863.2	884.9	878.9	777.1	763.6	742.4	780.5	841.7
52.5°	846.8	835.4	853.1	901.3	970.3	975.4	872.1	864.5	839.3	876.5	951.8
55°	825.7	822.8	850.9	920.9	1029.5	1065.5	981.9	971.6	943.2	975.1	1070.5
57.5°	778.4	785.7	830.8	916.8	1070.5	1144.9	1102.7	1087.8	1047.2	1066.5	1188.4
60°	729.0	732.4	791.9	902.3	1081.6	1200.0	1229.4	1220.9	1151.2	1162.6	1275.8
62.5°	674.1	665.9	727.6	890.3	1069.3	1276.0	1352.3	1345.8	1263.5	1260.0	1337.8
65°	520.9	532.2	584.9	735.8	985.1	1335.3	1498.8	1490.3	1388.5	1340.3	1331.2
67.5°	334.7	332.6	369.7	491.9	736.3	1213.6	1575.4	1584.9	1460.0	1376.6	1239.8
70°	120.0	123.6	137.4	223.5	403.7	808.7	1388.9	1435.9	1407.5	1308.8	1009.1
72.5°	73.1	73.1	83.3	100.5	163.5	383.6	989.8	1082.9	1148.8	1078.4	745.3
75°	57.3	57.0	60.5	69.3	88.2	125.8	526.2	598.1	736.8	745.1	424.2
77.5°	45.4	45.1	48.5	52.6	65.8	66.6	167.9	218.6	338.1	318.3	151.5
80°	36.5	36.2	38.8	40.1	48.1	46.0	67.5	78.2	118.5	104.0	65.6
82.5°	33.1	33.1	35.7	30.5	33.3	32.5	42.0	44.7	59.6	61.7	39.3
85°	21.4	22.1	33.3	29.6	21.8	19.9	26.8	28.4	37.2	40.6	19.2
87.5°	10.2	11.0	25.5	24.5	14.6	10.7	15.1	16.1	20.1	25.0	11.4
90°	6.7	6.7	10.0	11.3	9.7	8.7	9.4	9.4	11.0	11.9	10.0
92.5°	4.0	4.0	4.9	5.9	5.9	5.9	6.8	6.8	6.8	5.9	5.9
95°	4.9	4.9	5.9	6.8	6.8	6.8	6.8	7.1	7.8	6.8	6.8
97.5°	6.8	6.8	7.8	7.8	8.8	8.8	11.8	11.4	9.8	8.8	7.8
100°	7.8	7.8	8.8	9.8	11.8	20.6	28.5	27.8	25.5	22.5	18.7
102.5°	10.8	10.8	12.8	17.7	26.5	39.3	49.0	48.5	46.2	41.2	38.3
105°	20.6	21.6	26.5	35.3	47.1	61.8	70.7	70.2	68.7	63.8	59.8
107.5°	40.2	41.2	48.1	57.0	71.7	86.3	93.2	93.1	92.3	88.3	85.4
110°	64.8	66.7	72.7	85.4	100.1	111.9	117.8	117.9	118.8	116.8	113.8



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CATALOG NUMBER: IST-AF-350-LED-E1-T3-7027-ULG

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
112.5°	97.2	97.2	104.0	118.8	131.5	140.3	145.3	145.6	147.2	146.2	144.3
115°	137.4	136.5	144.3	156.0	164.9	170.8	175.7	176.2	178.7	175.7	173.7
117.5°	180.6	180.6	185.5	193.3	198.3	201.2	207.1	207.9	211.0	206.1	204.2
120°	220.8	218.8	221.8	228.7	232.6	238.5	241.5	242.3	245.3	240.5	238.5
122.5°	258.2	255.2	256.2	262.0	266.0	271.8	273.8	274.6	277.8	272.8	270.9
125°	292.5	288.5	290.5	293.5	299.3	304.3	307.2	307.6	309.2	304.3	304.3
127.5°	323.9	322.9	322.9	326.8	332.7	333.7	338.6	338.8	339.6	339.6	338.6
130°	356.3	354.3	355.3	359.2	363.2	365.1	370.0	370.8	374.0	374.0	372.0
132.5°	388.7	386.7	385.7	393.5	396.5	397.5	403.4	404.3	408.3	406.3	406.3
135°	421.0	418.1	418.1	424.0	427.0	428.9	434.8	435.8	439.7	438.7	441.7
137.5°	451.5	448.5	450.5	451.5	455.4	459.3	464.2	464.6	466.2	467.2	472.1
140°	479.0	476.0	478.0	480.0	481.9	487.8	490.7	491.1	492.7	494.7	499.5
142.5°	508.4	505.5	507.5	508.4	511.3	515.3	517.2	518.4	523.2	523.2	524.1
145°	539.8	535.9	534.0	536.8	539.8	540.8	545.7	546.9	551.6	550.6	547.7
147.5°	564.3	561.4	560.5	563.3	563.3	564.3	569.3	570.2	574.2	575.2	572.2
150°	584.0	581.0	582.0	582.0	582.0	582.0	586.0	586.5	588.9	591.8	594.8
152.5°	599.7	596.7	596.7	597.7	598.7	598.7	599.7	600.2	602.7	606.5	611.5
155°	617.3	613.5	613.5	615.4	618.3	616.3	614.4	615.4	619.3	624.2	626.2
157.5°	634.0	631.1	631.1	632.0	634.0	633.0	632.0	632.9	636.0	638.0	638.0
160°	650.7	647.8	646.8	643.8	642.8	642.8	645.8	647.0	651.7	648.8	647.8
162.5°	660.5	656.6	656.6	652.7	648.8	650.7	654.7	655.4	658.5	657.6	655.7
165°	668.4	665.5	663.5	663.5	660.5	660.5	659.5	660.5	664.5	667.4	665.5
167.5°	677.2	674.3	671.3	673.3	675.3	672.3	665.5	666.6	671.3	675.3	675.3
170°	685.0	682.2	679.2	679.2	680.2	678.2	673.3	673.9	676.2	681.2	683.1
172.5°	686.0	684.1	682.2	680.2	677.2	677.2	676.2	676.9	679.2	681.2	683.1
175°	687.0	685.0	684.1	682.2	678.2	677.2	677.2	678.2	682.2	683.1	681.2
177.5°	693.9	692.0	687.0	686.0	684.1	682.2	681.2	682.2	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°	288.4	288.4	288.4	288.4	288.4	288.4	288.4	288.4	288.4	288.4	288.4
2.5°	287.7	287.1	287.4	287.7	288.1	289.0	289.3	289.3	289.3	289.0	289.6
5°	284.2	283.7	283.7	284.5	285.5	286.8	288.6	290.2	290.9	291.2	291.2
7.5°	280.5	279.8	280.2	281.8	283.3	284.2	286.2	287.1	289.6	289.6	290.2
10°	277.9	278.6	278.9	280.5	281.8	281.8	281.3	280.8	280.2	281.8	281.1
12.5°	276.4	277.4	276.9	278.9	279.6	276.9	273.3	268.1	267.5	268.1	268.9
15°	275.8	275.8	276.7	276.7	273.5	268.5	263.8	264.1	264.7	266.5	266.5
17.5°	275.8	276.0	276.7	274.5	268.9	264.4	263.5	262.6	259.0	258.2	257.2
20°	277.9	277.4	277.9	273.8	268.9	265.4	258.2	251.2	244.6	241.7	240.5
22.5°	283.3	282.3	282.1	277.9	271.6	260.0	245.9	235.1	223.8	219.9	218.6
25°	292.8	292.5	290.2	287.4	269.9	247.0	229.1	212.1	199.9	193.1	193.6
27.5°	309.5	309.5	308.2	295.6	260.0	231.0	206.7	189.5	176.8	170.5	169.5
30°	334.7	335.2	336.0	297.8	244.6	207.4	182.2	170.5	163.0	158.2	157.9
32.5°	365.9	369.3	365.3	295.4	223.5	178.8	163.0	158.8	155.0	151.9	151.5
35°	407.2	416.6	390.9	285.2	199.9	159.2	151.3	148.4	145.5	143.4	143.7
37.5°	462.6	471.8	407.2	268.1	169.5	148.1	144.6	140.2	135.8	131.2	130.4
40°	528.2	525.4	412.8	236.1	150.6	142.8	138.0	132.4	124.9	117.9	116.6
42.5°	593.7	574.8	408.1	196.3	138.4	138.0	131.4	124.1	116.6	110.6	110.6
45°	667.2	618.3	393.5	159.2	128.5	132.9	124.9	117.2	110.3	105.9	105.6
47.5°	736.5	659.0	369.7	132.7	118.8	126.4	119.7	112.8	106.2	102.5	101.5
50°	817.7	705.3	351.3	114.7	109.3	119.7	116.9	110.6	104.3	99.9	99.3
52.5°	900.0	750.4	337.5	102.5	100.8	114.7	115.6	111.9	105.2	96.7	96.1
55°	986.1	806.8	309.7	92.6	93.2	110.9	117.2	114.4	109.6	95.8	95.2
57.5°	1058.2	858.8	261.2	86.1	87.2	108.1	117.9	112.5	107.2	96.5	95.5
60°	1114.7	894.4	191.6	80.7	81.9	104.9	115.1	105.9	98.9	96.5	94.8
62.5°	1132.0	895.6	127.3	74.4	77.8	99.6	110.0	102.5	94.2	95.5	94.8
65°	1088.6	848.4	91.1	68.5	74.4	93.2	107.8	98.9	92.1	97.1	96.5
67.5°	954.6	714.7	73.1	63.7	69.7	86.7	103.7	95.8	90.1	100.5	98.6
70°	743.8	512.8	62.2	58.9	64.6	80.4	98.1	92.3	87.7	97.6	95.2
72.5°	490.4	301.9	54.9	54.4	58.6	75.0	91.6	89.2	83.5	88.6	84.8
75°	255.8	140.0	47.6	49.5	52.0	70.2	86.1	83.5	77.3	79.1	77.8
77.5°	100.5	65.6	41.3	43.5	46.4	63.3	78.8	76.3	70.9	69.3	69.0
80°	55.2	44.2	34.3	37.2	39.1	57.0	71.2	68.5	62.7	61.7	60.8
82.5°	34.9	28.7	28.4	30.3	32.8	50.8	64.0	59.6	54.9	64.6	52.3
85°	16.3	17.0	20.1	22.6	25.5	43.2	55.8	51.0	46.4	45.1	40.1
87.5°	9.2	11.4	13.3	15.5	17.7	30.3	44.2	39.7	34.7	29.6	30.5
90°	9.1	9.1	12.7	12.3	10.7	11.3	29.6	27.4	24.3	13.0	10.3
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
110°	114.8	113.8	116.8	118.8	117.8	111.9	100.1	85.4	72.7	66.7	64.8



REPORT NUMBER: P271698

CATALOG NUMBER: IST-AF-350-LED-E1-T3-7027-ULG

CANDELA DISTRIBUTION (continued):

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