

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: P226704

Luminaire Tested: **IST-AF-350-LED-E1-T4W-7030-ULG**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P226704
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-7030-ULG
Description: IMPACT ELITE LED TRAPEZOID LUMINAIRE WITH UPLIGHT
LIGHT SQUARE WITH ACCULED OPTICS-TYPE IV WIDE, 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: 3950.5 lumens
Efficiency: N/A
Efficacy: 107.4 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

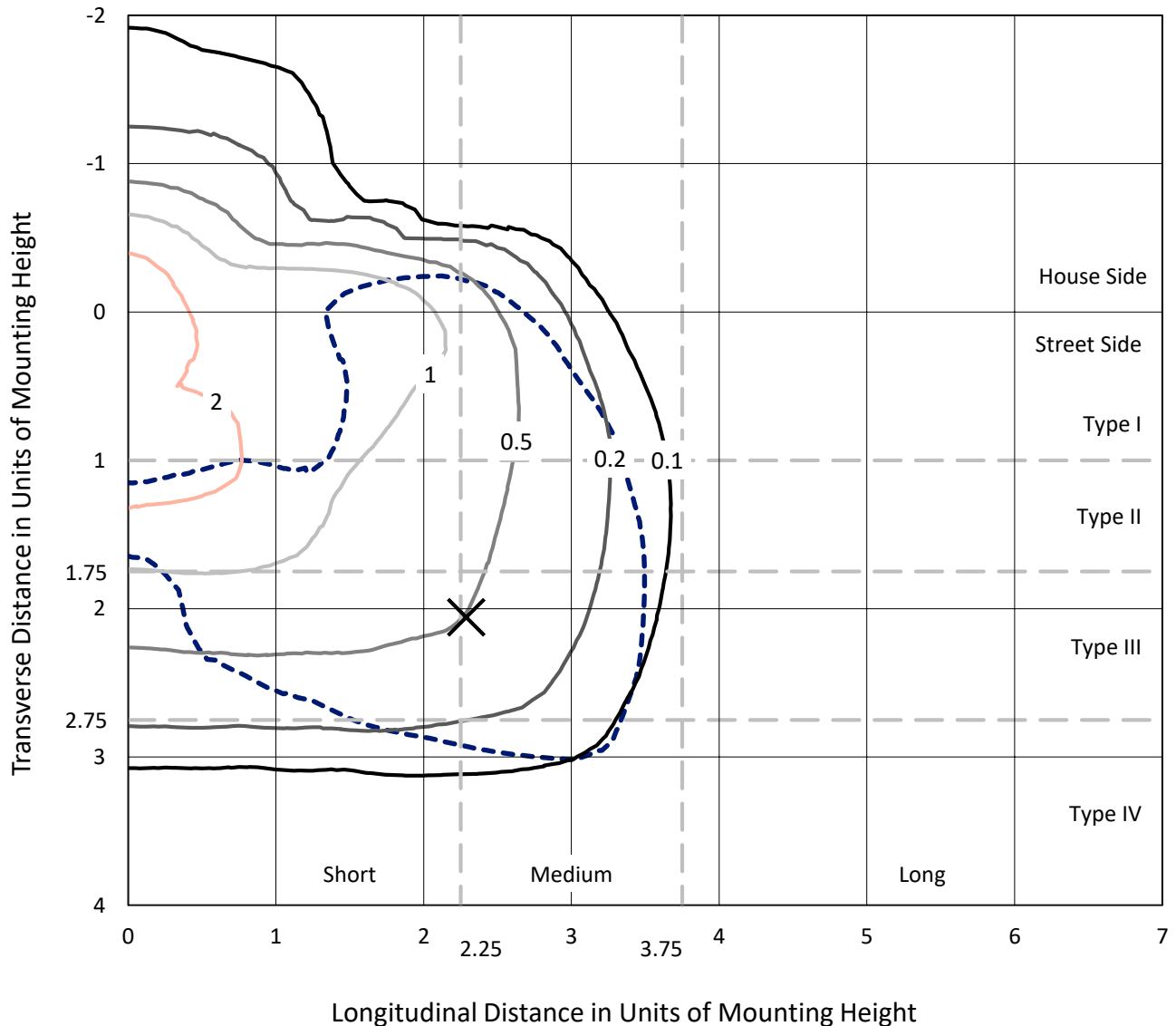


REPORT NUMBER: P226704

CATALOG NUMBER: IST-AF-350-LED-E1-T4W-7030-ULG

Iso-Footcandle Lines of Horizontal Illumination

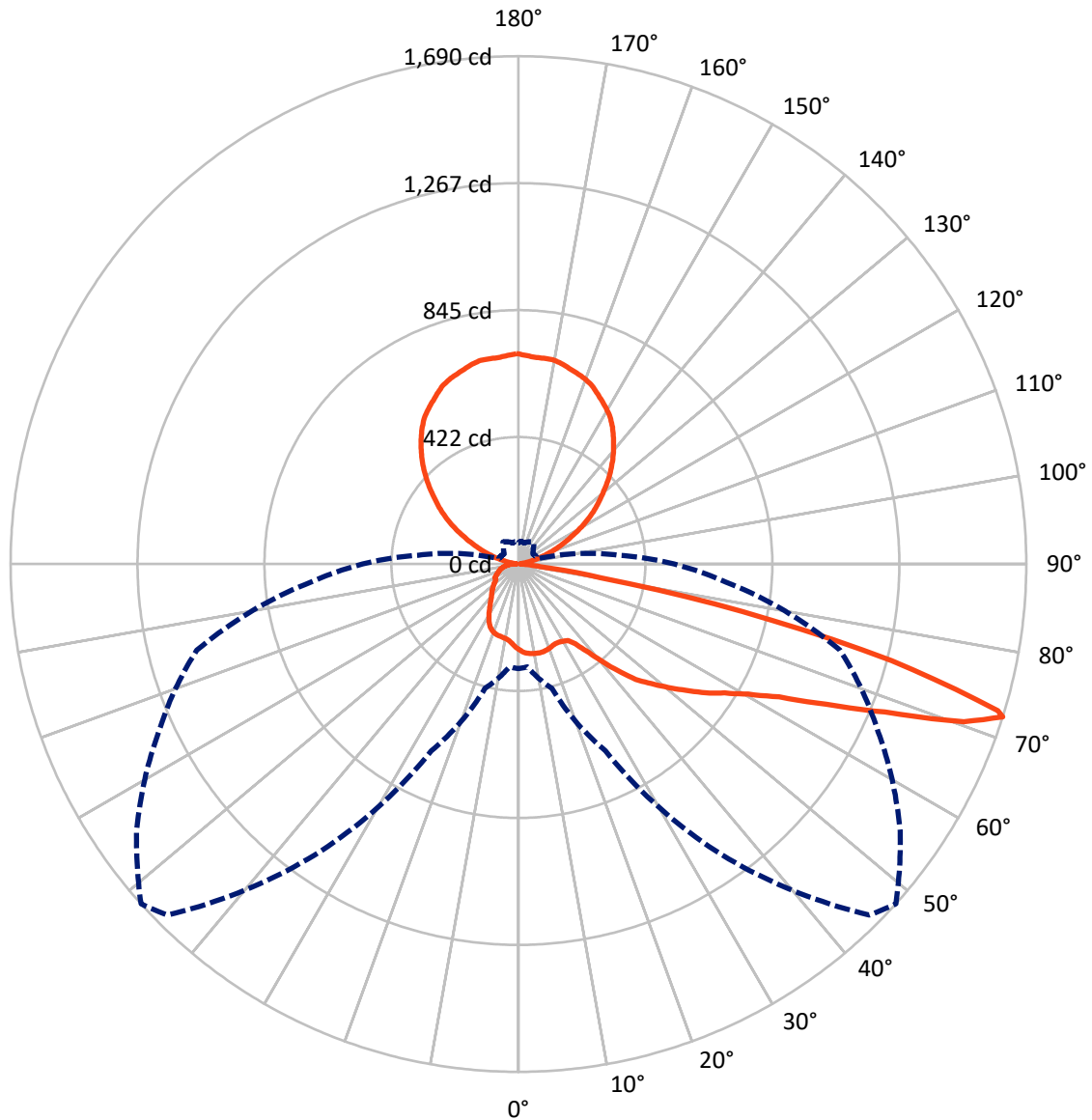
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.2 fc
 Type IV - Medium - Non-Cutoff

REPORT NUMBER: P226704
CATALOG NUMBER: IST-AF-350-LED-E1-T4W-7030-ULG

Luminous Intensity Polar Plot



— Vertical Plane Through 48-Deg Lateral - - - Horizontal Cone Through 72-Deg Vertical

REPORT NUMBER: P226704

CATALOG NUMBER: IST-AF-350-LED-E1-T4W-7030-ULG

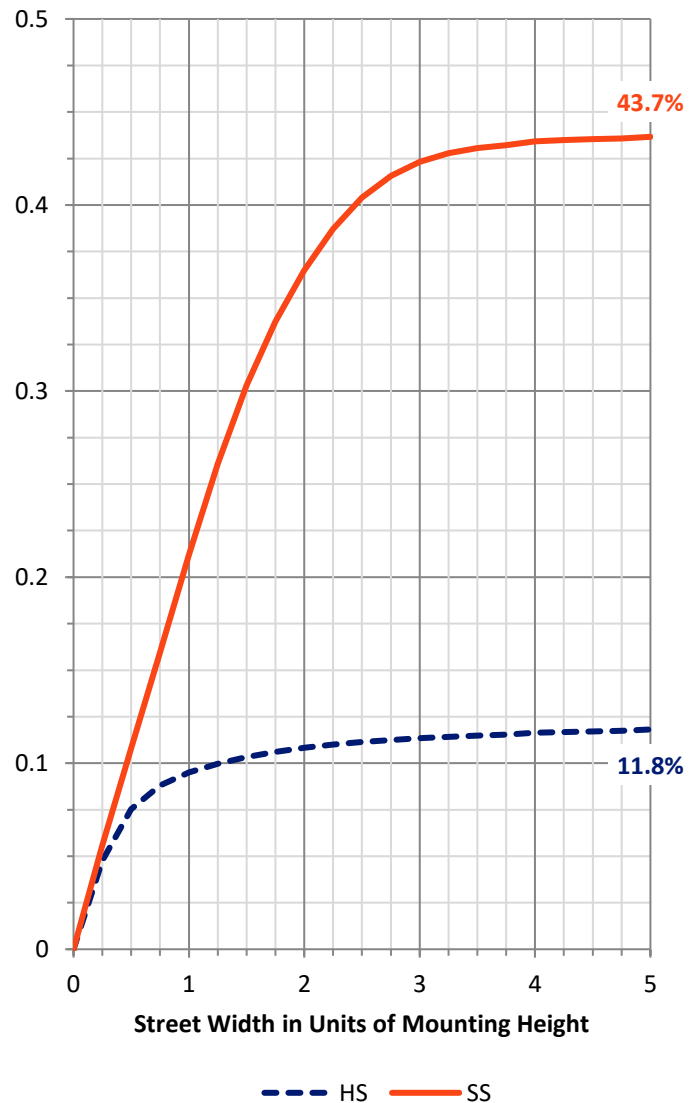
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	481.4	868.6	1350.0
	% Fixture	12.2	22.0	34.2
Street Side	Lumens	1732.6	867.9	2600.5
	% Fixture	43.9	22.0	65.8
Total	Lumens	2214.0	1736.5	3950.5
	% Fixture	56.0	44.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.9	0.7
10°-20°	78.7	2.0
20°-30°	121.3	3.1
30°-40°	181.9	4.6
40°-50°	302.8	7.7
50°-60°	473.2	12.0
60°-70°	625.1	15.8
70°-80°	361.6	9.2
80°-90°	42.5	1.1
90°-100°	10.6	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°	2214.0	56.0
0°-180°	3950.5	100.0



REPORT NUMBER: P226704

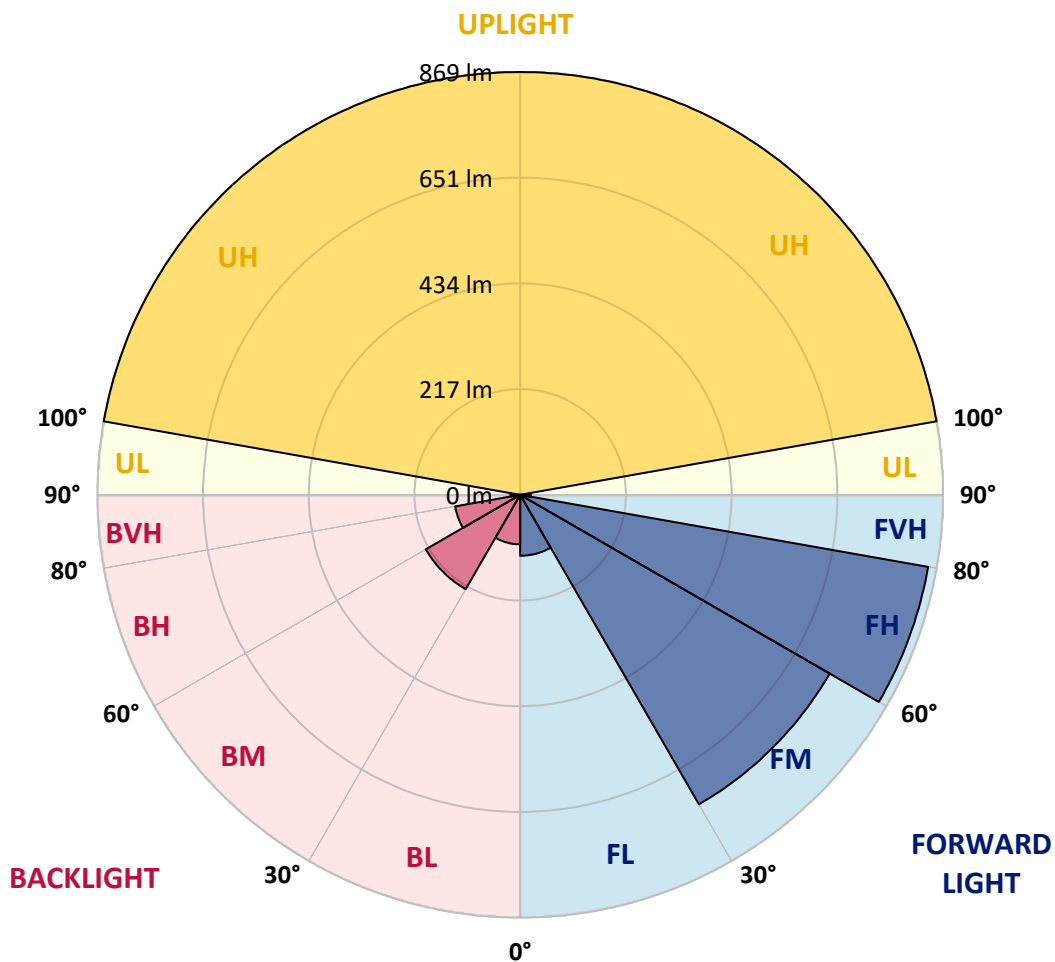
CATALOG NUMBER: IST-AF-350-LED-E1-T4W-7030-ULG

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	125.2	3.2			
FM	(30°-60°)	734.1	18.6			
FH	(60°-80°)	851.0	21.5			G1/1800
FVH	(80°-90°)	22.3	0.6			G1/100
BL	(0°-30°)	101.7	2.6	B0/110		
BM	(30°-60°)	223.8	5.7	B1/1000		
BH	(60°-80°)	135.7	3.4	B1/500		G1/500
BVH	(80°-90°)	20.2	0.5			G1/100
UL	(90°-100°)	10.6	0.3		U2/50	
UH	(100°-180°)	868.6	22.0		U4/1000	

BUG Rating: B1-U5-G1

Type IV Medium





REPORT NUMBER: P226704

CATALOG NUMBER: IST-AF-350-LED-E1-T4W-7030-ULG

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	48°	55°	65°	75°	85°
0°	284.9	284.9	284.9	284.9	284.9	284.9	284.9	284.9	284.9	284.9	284.9
2.5°	300.0	299.6	299.6	297.1	296.1	294.5	293.2	291.3	289.4	287.1	284.2
5°	314.4	315.4	314.1	310.2	305.4	300.3	298.4	293.9	287.8	282.3	277.2
7.5°	328.2	328.5	325.0	318.6	311.2	303.2	300.6	294.5	287.8	280.4	273.0
10°	338.2	338.5	333.4	324.4	314.4	305.4	302.5	296.4	288.1	280.0	270.7
12.5°	344.0	344.3	336.6	327.3	315.4	306.4	303.8	297.4	288.7	278.4	268.2
15°	343.0	344.0	337.5	327.3	314.7	306.7	303.5	298.0	287.1	276.8	265.9
17.5°	336.6	337.9	332.7	321.5	311.5	305.1	301.6	296.1	285.5	274.6	262.7
20°	324.0	325.7	323.4	312.5	305.7	300.6	298.4	293.2	283.3	272.0	259.8
22.5°	309.9	311.5	310.9	301.9	298.7	296.1	293.9	290.0	281.3	270.1	258.5
25°	299.6	300.9	300.0	292.3	293.2	293.2	291.9	289.0	281.0	270.7	258.5
27.5°	316.7	316.7	308.3	292.6	291.0	293.9	293.2	291.6	285.2	273.9	261.1
30°	379.0	374.1	359.1	319.6	299.3	298.0	297.7	296.7	291.0	281.0	269.1
32.5°	448.7	443.8	425.9	376.4	334.3	306.7	303.8	304.1	302.5	293.2	281.3
35°	510.6	510.0	495.9	442.2	388.6	337.2	325.7	317.9	317.3	313.4	304.1
37.5°	560.7	560.7	562.0	501.0	447.4	385.7	366.1	341.7	341.7	339.5	333.7
40°	617.9	620.5	623.4	554.3	510.3	443.5	421.4	384.4	373.2	376.7	378.0
42.5°	693.1	696.3	694.3	620.2	567.8	512.6	485.3	440.6	413.0	418.8	432.3
45°	743.8	745.1	758.9	688.9	640.1	571.0	547.9	486.6	459.3	471.1	494.9
47.5°	801.3	804.5	806.7	766.9	724.8	637.2	594.8	531.2	513.5	531.5	569.1
50°	857.5	853.3	859.4	857.8	805.1	695.9	645.5	572.9	574.2	598.6	660.3
52.5°	906.3	892.2	906.3	924.0	908.6	756.3	697.6	622.1	640.7	670.6	767.9
55°	943.9	909.8	933.6	983.7	980.2	809.6	757.0	687.6	718.7	759.5	898.6
57.5°	867.1	871.3	936.8	1023.8	1022.2	863.6	809.0	769.5	807.7	853.3	1053.4
60°	795.5	814.1	915.3	1030.3	1051.5	922.4	879.0	862.6	898.0	953.5	1201.8
62.5°	757.6	775.3	880.3	1018.4	1098.0	1009.4	973.1	960.6	1008.8	1071.1	1334.1
65°	769.5	780.4	878.0	1036.4	1151.7	1141.1	1125.3	1104.5	1128.5	1187.0	1393.8
67.5°	736.1	754.1	859.4	1068.2	1249.6	1301.6	1314.8	1292.3	1272.1	1264.1	1306.8
70°	547.9	565.2	675.7	936.8	1329.9	1580.4	1572.4	1497.2	1361.1	1247.4	1021.0
72°	348.1	343.3	427.8	686.3	1182.2	1652.0	1689.9	1550.9	1320.6	1107.7	693.4
72.5°	253.1	275.9	354.9	610.2	1123.1	1612.8	1668.1	1533.5	1267.6	1046.3	609.9
75°	61.7	65.2	85.1	218.7	657.7	1213.6	1283.0	1184.7	925.3	621.1	270.4
77.5°	41.8	43.4	56.2	77.1	193.3	692.1	761.5	654.2	414.0	211.3	120.4
80°	31.2	32.1	40.8	54.6	80.3	236.0	278.4	221.3	103.1	117.2	85.7
82.5°	21.8	22.5	30.8	40.1	53.3	55.2	73.5	81.3	66.8	76.8	50.1
85°	15.1	15.1	22.5	27.6	33.7	27.3	29.2	40.8	45.3	45.6	30.5
87.5°	8.0	9.0	13.2	17.7	17.7	12.5	13.8	20.9	25.4	27.3	18.3
90°	7.9	7.9	12.5	14.7	12.2	10.2	9.9	11.2	15.1	17.7	12.8
92.5°	4.0	4.0	5.0	6.0	6.0	6.0	6.3	7.0	7.0	6.0	6.0
95°	5.0	5.0	6.0	7.0	7.0	7.0	7.0	7.0	8.0	7.0	7.0
97.5°	7.0	7.0	8.0	8.0	9.0	9.0	9.9	12.0	10.0	9.0	8.0
100°	8.0	8.0	9.0	10.0	12.0	21.0	23.4	29.0	26.0	23.0	19.0
102.5°	11.0	11.0	13.0	18.0	27.0	40.0	43.0	50.0	47.0	42.0	39.0
105°	21.0	22.0	27.0	36.0	48.0	63.0	65.7	72.0	70.0	65.0	61.0
107.5°	41.0	42.0	49.0	58.0	73.0	88.0	90.1	95.0	94.0	90.0	87.0



REPORT NUMBER: P226704

CATALOG NUMBER: IST-AF-350-LED-E1-T4W-7030-ULG

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	48°	55°	65°	75°	85°
110°	66.0	68.0	74.0	87.0	102.0	114.0	115.8	120.0	121.0	119.0	116.0
112.5°	99.0	99.0	106.0	121.0	134.0	143.0	144.5	148.0	150.0	149.0	147.0
115°	140.0	139.0	147.0	159.0	168.0	174.0	175.5	179.0	182.0	179.0	177.0
117.5°	184.0	184.0	189.0	197.0	202.0	205.0	206.8	211.0	215.0	210.0	208.0
120°	225.0	223.0	226.0	233.0	237.0	243.0	243.9	246.0	250.0	245.0	243.0
122.5°	263.0	260.0	261.0	267.0	271.0	277.0	277.6	279.0	283.0	278.0	276.0
125°	298.0	294.0	296.0	299.0	305.0	310.0	310.9	313.0	315.0	310.0	310.0
127.5°	330.0	329.0	329.0	333.0	339.0	340.0	341.5	345.0	346.0	346.0	345.0
130°	363.0	361.0	362.0	366.0	370.0	372.0	373.5	377.0	381.0	381.0	379.0
132.5°	396.0	394.0	393.0	401.0	404.0	405.0	406.8	411.0	416.0	414.0	414.0
135°	429.0	426.0	426.0	432.0	435.0	437.0	438.8	443.0	448.0	447.0	450.0
137.5°	460.0	457.0	459.0	460.0	464.0	468.0	469.5	473.0	475.0	476.0	481.0
140°	488.0	485.0	487.0	489.0	491.0	497.0	497.9	500.0	502.0	504.0	509.0
142.5°	518.0	515.0	517.0	518.0	521.0	525.0	525.6	527.0	533.0	533.0	534.0
145°	550.0	546.0	544.0	547.0	550.0	551.0	552.5	556.0	562.0	561.0	558.0
147.5°	575.0	572.0	571.0	574.0	574.0	575.0	576.5	580.0	585.0	586.0	583.0
150°	595.0	592.0	593.0	593.0	593.0	593.0	594.2	597.0	600.0	603.0	606.0
152.5°	611.0	608.0	608.0	609.0	610.0	610.0	610.3	611.0	614.0	618.0	623.0
155°	629.0	625.0	625.0	627.0	630.0	628.0	627.4	626.0	631.0	636.0	638.0
157.5°	646.0	643.0	643.0	644.0	646.0	645.0	644.7	644.0	648.0	650.0	650.0
160°	663.0	660.0	659.0	656.0	655.0	655.0	655.9	658.0	664.0	661.0	660.0
162.5°	673.0	669.0	669.0	665.0	661.0	663.0	664.2	667.0	671.0	670.0	668.0
165°	681.0	678.0	676.0	676.0	673.0	673.0	672.7	672.0	677.0	680.0	678.0
167.5°	690.0	687.0	684.0	686.0	688.0	685.0	682.9	678.0	684.0	688.0	688.0
170°	698.0	695.0	692.0	692.0	693.0	691.0	689.5	686.0	689.0	694.0	696.0
172.5°	699.0	697.0	695.0	693.0	690.0	690.0	689.7	689.0	692.0	694.0	696.0
175°	700.0	698.0	697.0	695.0	691.0	690.0	690.0	690.0	695.0	696.0	694.0
177.5°	707.0	705.0	700.0	699.0	697.0	695.0	694.7	694.0	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



REPORT NUMBER: P226704

CATALOG NUMBER: IST-AF-350-LED-E1-T4W-7030-ULG

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	284.9	284.9	284.9	284.9	284.9	284.9	284.9	284.9	284.9	284.9	284.9
2.5°	283.6	281.7	279.1	277.8	277.2	275.9	274.6	273.9	273.9	272.7	273.0
5°	274.6	271.7	268.2	265.6	265.3	265.3	265.9	265.9	266.2	265.3	266.6
7.5°	270.1	266.9	261.7	258.9	256.6	256.3	257.6	260.1	261.4	260.5	261.7
10°	266.9	263.3	257.6	254.0	252.4	251.8	252.7	255.3	259.5	259.5	260.8
12.5°	263.7	259.2	253.4	250.8	249.5	249.9	251.1	253.1	257.6	259.2	259.8
15°	260.5	255.3	250.5	247.0	247.0	247.9	249.5	251.8	256.0	258.9	259.5
17.5°	257.2	252.1	247.9	245.0	245.0	246.3	247.9	250.8	253.7	257.9	257.9
20°	254.4	250.2	244.7	242.2	241.8	242.8	244.7	247.6	249.9	254.0	254.4
22.5°	252.7	247.6	242.5	238.6	237.0	236.4	238.3	241.2	243.4	247.6	248.3
25°	252.1	246.3	239.9	232.8	228.7	227.4	228.3	231.9	233.8	237.0	238.0
27.5°	254.4	248.9	238.9	226.1	217.4	213.9	214.9	217.1	217.7	221.3	222.9
30°	262.1	255.6	240.9	219.0	203.3	196.9	196.9	197.2	198.2	201.0	201.4
32.5°	274.6	268.5	246.6	211.6	188.8	179.8	177.6	176.0	176.0	175.7	176.0
35°	297.7	292.6	256.6	203.3	173.1	163.1	157.7	154.8	151.9	150.6	150.3
37.5°	331.1	326.6	270.7	193.7	159.3	149.3	142.6	136.8	133.6	133.3	134.9
40°	380.9	376.4	286.5	182.7	146.1	138.7	131.7	125.6	122.0	122.4	124.0
42.5°	442.2	428.4	303.5	168.0	135.5	131.7	124.0	118.8	115.3	113.4	113.0
45°	513.8	490.7	319.6	154.2	124.0	125.6	118.2	112.4	107.9	102.8	102.1
47.5°	603.1	553.0	333.7	140.3	111.4	119.1	112.1	106.6	99.9	93.8	92.8
50°	696.3	624.6	345.9	125.6	100.2	112.1	106.0	98.6	89.3	83.8	83.8
52.5°	803.9	710.7	361.6	109.2	91.5	104.4	98.3	88.6	80.9	80.3	80.3
55°	923.6	801.0	372.5	96.3	84.8	96.0	93.1	90.2	87.7	88.3	88.6
57.5°	1048.9	895.1	362.9	87.4	79.3	94.1	102.4	98.6	90.6	90.2	89.9
60°	1156.8	968.3	309.6	81.6	75.2	97.3	109.8	98.6	90.6	94.7	95.1
62.5°	1227.5	1003.0	206.2	74.2	69.0	91.9	107.3	95.7	90.9	102.8	103.7
65°	1217.8	964.1	118.5	69.0	65.2	84.5	103.7	92.2	84.8	91.5	89.6
67.5°	1074.3	808.0	85.7	66.8	62.3	79.3	97.3	87.0	79.0	87.4	83.8
70°	772.1	550.1	73.9	64.9	60.4	73.2	92.8	83.8	75.8	81.6	76.1
72°	518.0	334.6	67.8	63.3	58.5	69.4	89.6	81.3	72.9	76.1	70.0
72.5°	440.9	264.0	66.2	62.6	57.8	68.4	88.6	80.6	72.3	75.5	69.7
75°	164.8	103.4	58.8	57.8	53.3	63.6	84.8	77.7	69.0	68.1	65.5
77.5°	84.8	65.5	50.1	51.1	47.9	58.1	80.6	73.2	63.6	60.1	58.8
80°	61.7	47.5	40.5	43.4	40.8	52.3	74.8	66.5	57.8	54.0	52.3
82.5°	38.9	29.5	30.8	34.4	34.7	46.2	68.1	59.7	51.4	48.2	45.6
85°	18.6	17.7	21.8	25.4	27.9	39.2	62.3	53.0	45.0	38.5	38.9
87.5°	10.0	13.5	13.2	17.0	21.5	32.1	55.2	43.4	36.0	28.9	29.2
90°	9.2	10.5	12.9	15.7	15.7	20.8	43.6	32.7	31.1	15.3	14.0
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



REPORT NUMBER: P226704

CATALOG NUMBER: IST-AF-350-LED-E1-T4W-7030-ULG

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	117.0	116.0	119.0	121.0	120.0	114.0	102.0	87.0	74.0	68.0	66.0
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)