

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: P227808

Luminaire Tested: **ISS-AF-350-LED-E1-T4FT-7050-ULG**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P227808  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29760)-DOWNLIGHT AND  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: ISS-AF-350-LED-E1-T4FT-7050-ULG  
Description: IMPACT ELITE LED QUATER SPHERE LUMINAIRE WITH UPLIGHT  
LIGHT SQUARE WITH ACCULED OPTICS-TYPE IV FORWARD THROW, 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: 3786.2 lumens  
Efficiency: N/A  
Efficacy: 102.9 lumens/watt  
Luminous Opening: Rectangular w/ Sides (W: 0.5' x L: 0.5' x H: 0.54')  
IES Classification: Type IV - 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

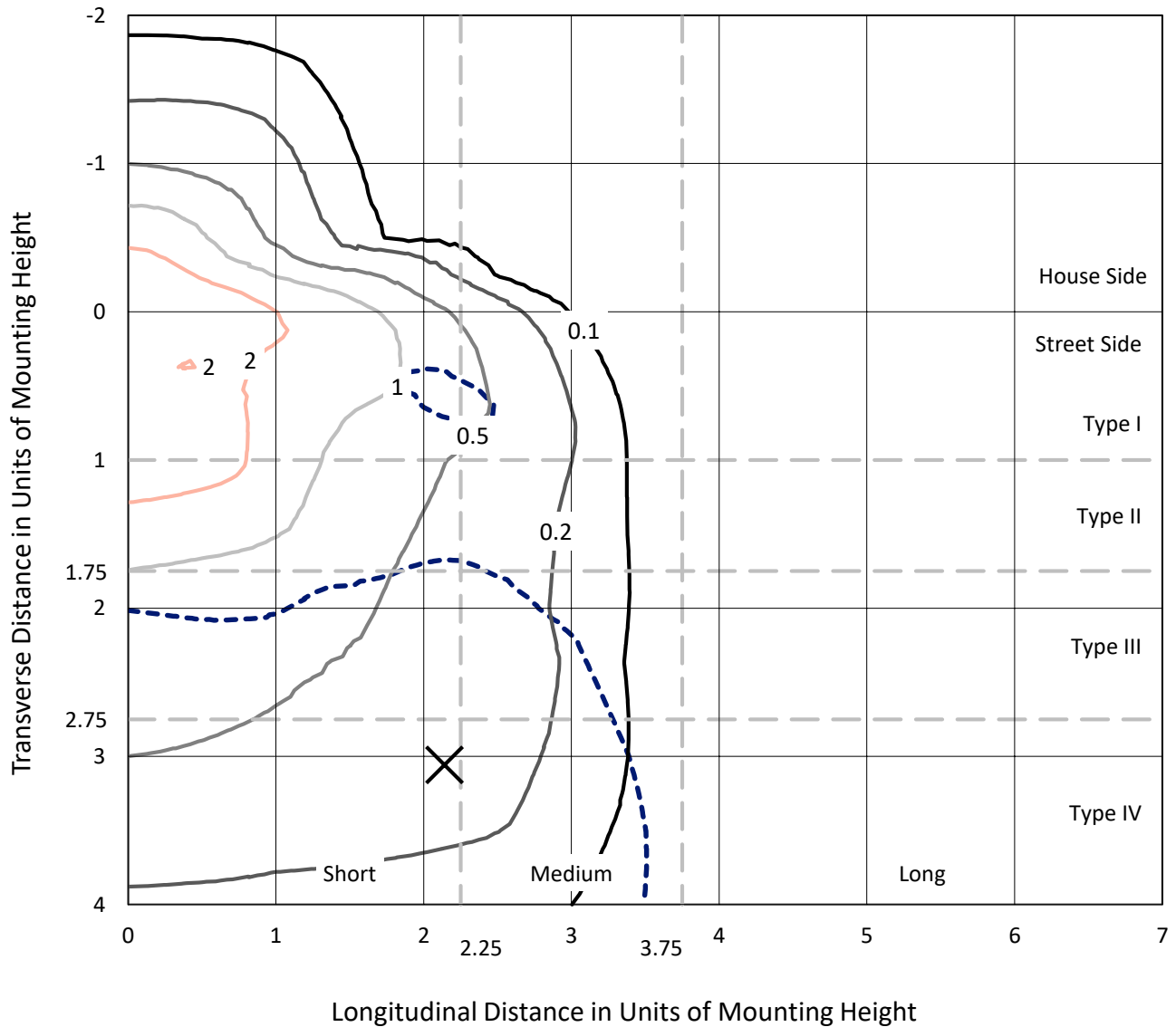


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### Iso-Footcandle Lines of Horizontal Illumination

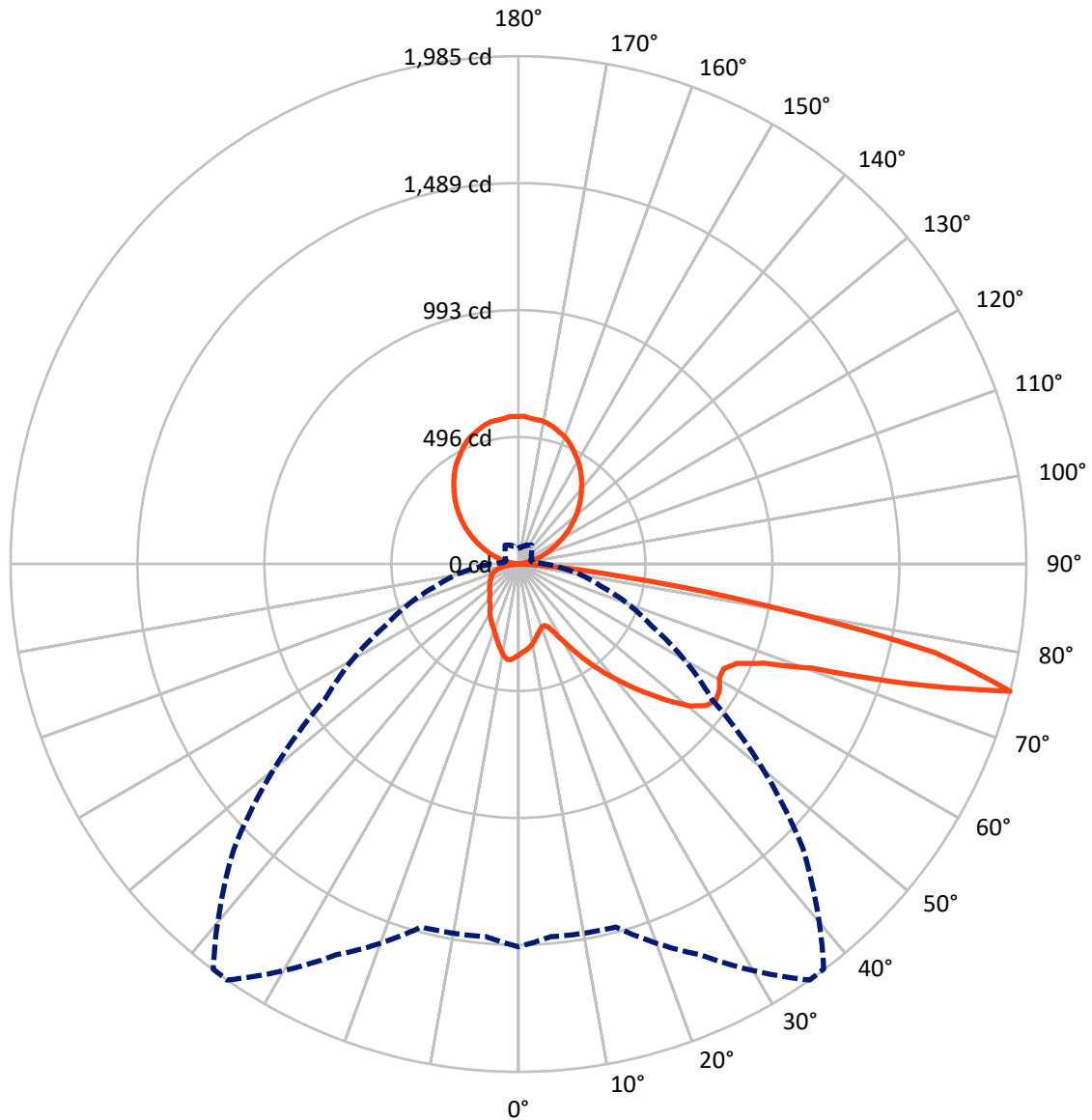
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.6 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral    - - - Horizontal Cone Through 75-Deg Vertical

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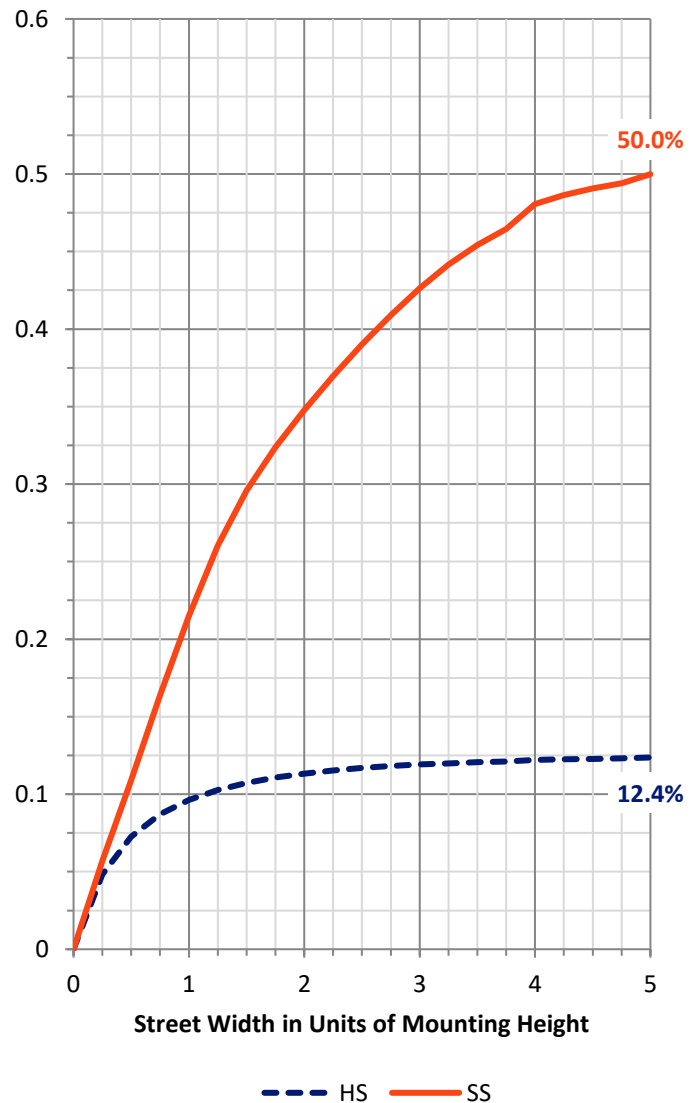
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	473.7	713.1	1186.7
	% Fixture	12.5	18.8	31.3
<b>Street Side</b>	Lumens	1886.3	713.1	2599.4
	% Fixture	49.8	18.8	68.7
<b>Total</b>	Lumens	2360.0	1426.2	3786.2
	% Fixture	62.3	37.7	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	33.3	0.9
10°-20°	87.8	2.3
20°-30°	138.9	3.7
30°-40°	224.3	5.9
40°-50°	331.8	8.8
50°-60°	426.6	11.3
60°-70°	528.2	14.0
70°-80°	532.3	14.1
80°-90°	56.8	1.5
90°-100°	4.7	0.1
100°-110°	69.0	1.8
110°-120°	153.0	4.0
120°-130°	223.9	5.9
130°-140°	265.6	7.0
140°-150°	269.3	7.1
150°-160°	231.1	6.1
160°-170°	155.1	4.1
170°-180°	54.3	1.4
0°-90°	2360.0	62.3
0°-180°	3786.2	100.0



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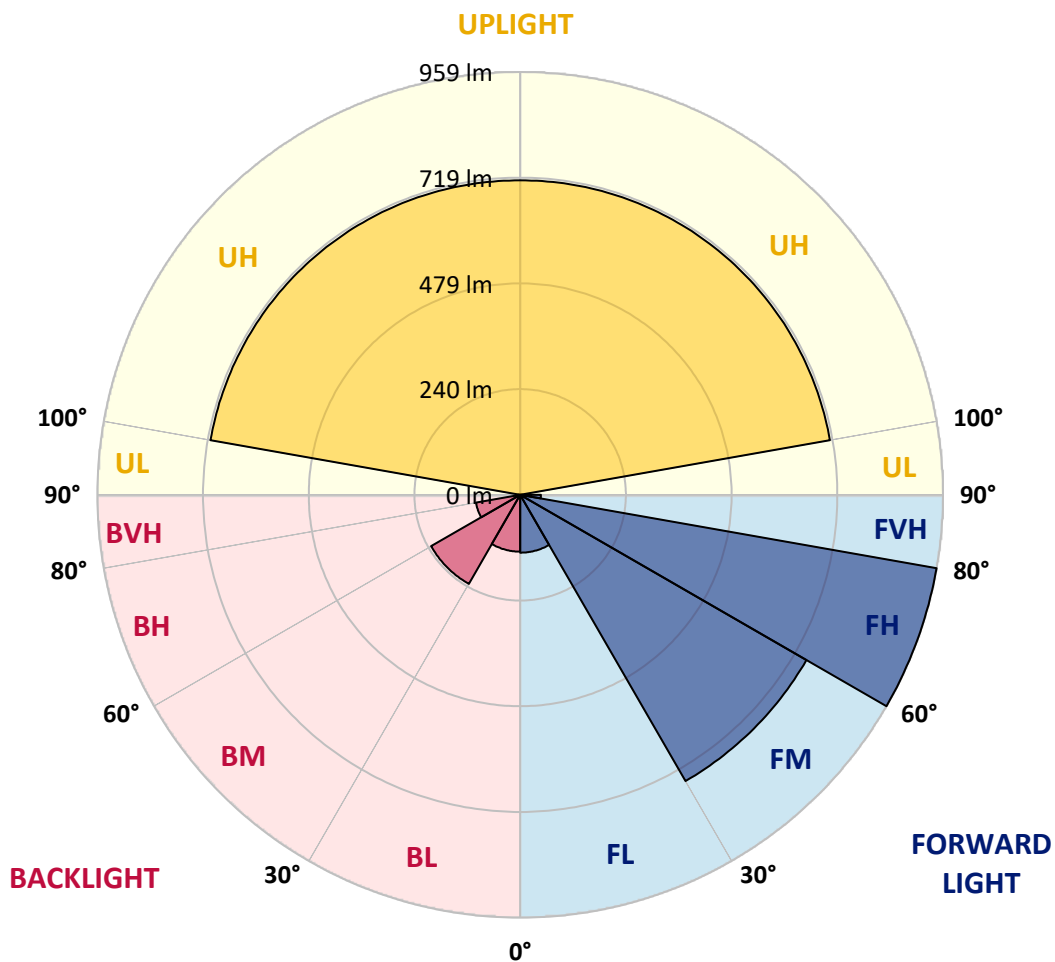
CATALOG NUMBER: ISS-AF-350-LED-E1-T4FT-7050-ULG

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	131.2	3.5			
FM	(30°-60°)	749.4	19.8			
FH	(60°-80°)	958.7	25.3			G1/1800
FVH	(80°-90°)	47.0	1.2			G1/100
BL	(0°-30°)	128.8	3.4	B1/500		
BM	(30°-60°)	233.2	6.2	B1/1000		
BH	(60°-80°)	101.8	2.7	B0/110		G0/110
BVH	(80°-90°)	9.8	0.3			G0/10
UL	(90°-100°)	4.7	0.1		U1/10	
UH	(100°-180°)	713.1	18.8		U4/1000	

**BUG Rating: B1-U5-G1**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	37°	45°	55°	65°	75°	85°
0°	354.5	354.5	354.5	354.5	354.5	354.5	354.5	354.5	354.5	354.5	354.5
2.5°	344.3	343.5	342.7	342.7	344.3	344.3	345.1	345.9	346.7	349.0	352.2
5°	334.8	334.0	333.3	334.0	336.4	336.4	338.8	340.4	341.9	345.9	349.8
7.5°	322.2	322.2	321.4	324.6	327.0	326.2	329.3	330.9	334.8	338.8	345.1
10°	305.7	305.7	305.7	309.6	313.6	313.6	315.9	319.9	323.0	328.5	336.4
12.5°	291.5	290.7	290.7	293.9	298.6	299.4	303.3	308.8	312.8	319.9	328.5
15°	286.8	285.2	281.3	281.3	283.6	283.6	289.9	297.8	304.1	311.2	321.4
17.5°	287.6	285.2	275.0	271.8	271.8	272.6	278.9	287.6	295.4	304.1	317.5
20°	294.7	290.7	271.8	264.7	263.1	263.9	269.4	278.1	287.6	299.4	314.4
22.5°	325.4	319.1	283.6	267.9	260.8	260.8	263.9	273.4	285.2	301.0	319.9
25°	396.3	386.0	323.0	294.7	273.4	271.0	265.5	275.0	289.1	308.0	335.6
27.5°	468.8	458.5	371.9	341.1	308.0	301.0	280.5	282.8	298.6	323.8	359.3
30°	529.4	520.8	433.3	397.9	353.7	345.9	314.4	299.4	315.1	345.9	394.7
32.5°	534.2	530.2	499.5	463.3	409.7	398.7	356.9	333.3	341.1	375.8	433.3
35°	578.3	575.1	558.6	523.9	470.3	457.7	413.6	377.4	375.0	408.9	477.4
37.5°	621.6	617.7	606.6	583.0	533.4	523.1	488.5	430.2	413.6	447.5	520.8
40°	662.6	657.1	642.9	629.5	593.2	593.2	556.2	480.6	450.6	481.4	557.0
42.5°	738.2	720.9	683.1	672.8	662.6	662.6	608.2	515.3	480.6	518.4	591.7
45°	810.7	794.2	742.9	722.5	728.0	724.8	650.0	534.9	507.4	553.1	624.8
47.5°	868.2	853.2	801.2	787.1	802.8	790.2	684.6	550.7	541.3	590.1	652.3
50°	919.4	884.0	833.5	852.5	872.1	850.9	715.4	574.3	575.1	629.5	692.5
52.5°	849.3	845.4	856.4	900.5	919.4	895.8	742.9	604.3	611.4	679.9	738.2
55°	765.0	764.2	828.8	914.7	937.5	915.5	761.1	640.5	649.2	742.2	795.7
57.5°	748.5	740.6	784.7	884.8	926.5	910.8	770.5	674.4	685.4	820.9	852.5
60°	802.0	787.1	780.0	852.5	902.9	895.0	782.3	714.6	729.5	910.8	905.2
62.5°	918.6	898.1	847.7	854.8	900.5	894.2	810.7	761.8	779.2	1000.6	935.2
65°	1073.0	1058.1	977.7	920.2	937.5	928.9	861.9	821.7	831.2	1065.2	901.3
67.5°	1242.4	1222.0	1134.5	1055.7	1033.7	1017.1	943.1	892.6	858.8	1055.7	810.7
70°	1433.9	1411.8	1336.2	1255.0	1217.2	1199.1	1084.9	954.1	848.5	951.7	639.7
72.5°	1669.4	1639.5	1597.8	1606.4	1600.1	1549.7	1311.0	974.6	773.7	708.3	382.1
75°	1496.1	1462.2	1469.3	1686.0	1985.4	1983.0	1572.5	924.1	576.7	334.0	165.4
77.5°	536.5	593.2	875.3	1262.9	1664.7	1662.4	1217.2	578.3	247.4	142.6	100.1
80°	134.7	137.1	217.4	518.4	972.2	964.3	690.2	218.2	103.2	86.7	68.5
82.5°	43.3	46.5	79.6	178.8	416.0	406.5	214.3	71.7	64.6	55.9	41.8
85°	14.2	14.2	28.4	61.5	137.1	131.6	43.3	26.0	35.5	29.2	18.9
87.5°	0.0	0.0	0.8	1.6	3.2	1.6	0.0	1.6	4.7	5.5	3.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
97.5°	2.0	2.0	2.0	3.0	4.0	5.0	9.0	13.0	7.0	5.0	4.0
100°	8.0	8.0	10.0	14.0	22.0	23.6	30.0	32.0	30.0	27.0	26.0
102.5°	28.0	28.0	32.0	38.0	45.0	46.0	50.0	51.0	50.0	48.0	49.0
105°	54.0	54.0	56.0	61.0	66.0	66.8	70.0	71.0	71.0	69.0	71.0
107.5°	78.0	77.0	80.0	84.0	88.0	88.6	91.0	93.0	92.0	91.0	92.0
110°	101.0	102.0	103.0	106.0	110.0	110.4	112.0	114.0	114.0	113.0	114.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	37°	45°	55°	65°	75°	85°
112.5°	124.0	124.0	126.0	129.0	132.0	132.4	134.0	136.0	136.0	135.0	137.0
115°	146.0	147.0	149.0	151.0	154.0	154.4	156.0	158.0	158.0	158.0	160.0
117.5°	169.0	170.0	172.0	174.0	177.0	177.4	179.0	180.0	181.0	180.0	182.0
120°	193.0	195.0	196.0	198.0	201.0	201.2	202.0	204.0	204.0	204.0	206.0
122.5°	219.0	220.0	221.0	223.0	226.0	226.2	227.0	228.0	228.0	229.0	233.0
125°	244.0	246.0	247.0	248.0	251.0	251.2	252.0	253.0	254.0	254.0	257.0
127.5°	267.0	269.0	270.0	272.0	274.0	274.4	276.0	278.0	277.0	278.0	281.0
130°	290.0	292.0	293.0	294.0	298.0	298.2	299.0	301.0	301.0	302.0	305.0
132.5°	313.0	314.0	317.0	318.0	321.0	321.2	322.0	325.0	325.0	326.0	329.0
135°	336.0	337.0	339.0	341.0	345.0	345.0	345.0	348.0	348.0	349.0	351.0
137.5°	359.0	360.0	363.0	364.0	367.0	367.0	367.0	369.0	369.0	370.0	374.0
140°	382.0	383.0	385.0	386.0	388.0	388.2	389.0	390.0	390.0	392.0	396.0
142.5°	404.0	406.0	408.0	407.0	410.0	410.0	410.0	412.0	412.0	413.0	416.0
145°	425.0	426.0	428.0	428.0	431.0	431.2	432.0	434.0	433.0	434.0	437.0
147.5°	444.0	444.0	447.0	448.0	452.0	452.2	453.0	454.0	452.0	453.0	456.0
150°	461.0	462.0	464.0	465.0	469.0	469.2	470.0	471.0	469.0	469.0	473.0
152.5°	479.0	480.0	483.0	482.0	485.0	485.2	486.0	487.0	486.0	486.0	489.0
155°	499.0	500.0	502.0	501.0	503.0	503.0	503.0	504.0	503.0	504.0	507.0
157.5°	513.0	515.0	517.0	516.0	519.0	519.0	519.0	519.0	517.0	518.0	523.0
160°	525.0	527.0	529.0	529.0	532.0	532.0	532.0	532.0	530.0	530.0	533.0
162.5°	535.0	536.0	539.0	538.0	541.0	541.0	541.0	542.0	540.0	538.0	540.0
165°	546.0	547.0	549.0	548.0	552.0	552.0	552.0	553.0	550.0	548.0	550.0
167.5°	555.0	556.0	559.0	558.0	561.0	560.8	560.0	560.0	558.0	559.0	563.0
170°	562.0	563.0	566.0	565.0	567.0	566.8	566.0	565.0	564.0	566.0	571.0
172.5°	565.0	566.0	569.0	567.0	569.0	568.8	568.0	569.0	567.0	568.0	571.0
175°	567.0	569.0	570.0	569.0	572.0	572.0	572.0	573.0	570.0	568.0	571.0
177.5°	572.0	573.0	575.0	574.0	578.0	577.8	577.0	577.0	574.0	574.0	577.0
180°	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0





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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	354.5	354.5	354.5	354.5	354.5	354.5	354.5	354.5	354.5	354.5	354.5
2.5°	354.5	353.7	356.9	359.3	360.0	362.4	364.8	366.3	365.6	364.8	364.8
5°	353.7	354.5	360.0	364.8	368.7	372.7	375.8	377.4	376.6	376.6	376.6
7.5°	349.0	352.2	358.5	366.3	371.9	374.2	375.0	372.7	371.1	368.7	368.7
10°	341.1	345.9	356.1	364.8	367.1	364.0	359.3	354.5	348.2	344.3	344.3
12.5°	334.8	340.4	353.0	360.0	356.9	349.0	338.8	330.9	324.6	319.9	319.1
15°	329.3	336.4	349.8	351.4	344.3	330.9	317.5	308.8	301.7	298.6	298.6
17.5°	325.4	334.8	346.7	341.9	327.7	310.4	297.8	290.7	285.2	282.0	281.3
20°	326.2	338.0	343.5	330.1	309.6	291.5	279.7	275.7	271.8	270.2	270.2
22.5°	334.8	345.9	342.7	319.9	293.1	272.6	264.7	263.9	262.4	260.8	260.0
25°	353.7	361.6	345.1	309.6	275.7	255.3	251.3	253.7	252.9	251.3	251.3
27.5°	379.7	381.3	349.0	299.4	256.8	238.7	238.7	242.7	241.1	238.7	240.3
30°	411.3	402.6	350.6	282.8	234.8	223.0	225.3	227.7	226.1	223.0	223.0
32.5°	445.1	424.7	350.6	261.6	213.5	208.8	209.6	210.4	207.2	203.3	203.3
35°	478.2	445.9	346.7	236.4	197.0	194.6	193.8	197.0	194.6	189.1	189.1
37.5°	509.7	462.5	336.4	210.4	184.4	183.6	185.9	184.4	181.2	173.3	171.8
40°	531.8	473.5	315.9	189.1	174.1	178.8	177.3	168.6	163.9	158.4	158.4
42.5°	551.5	479.0	290.7	172.5	167.0	173.3	167.0	156.0	149.7	148.9	149.7
45°	569.6	483.7	266.3	159.1	158.4	167.0	159.1	147.3	140.2	140.2	141.0
47.5°	586.9	488.5	241.9	146.5	148.1	157.6	152.8	141.0	133.9	129.2	129.2
50°	614.5	499.5	206.4	133.1	136.3	149.7	148.1	134.7	126.8	119.8	118.2
52.5°	647.6	518.4	167.8	119.0	127.6	142.6	142.6	129.2	120.5	111.1	109.5
55°	691.7	538.9	134.7	108.7	119.0	134.7	137.1	126.8	114.2	105.6	104.0
57.5°	735.8	546.0	108.7	98.5	107.9	126.8	133.1	122.1	107.1	100.8	100.1
60°	766.6	523.1	91.4	89.8	100.1	117.4	127.6	116.6	102.4	96.1	96.1
62.5°	761.8	453.8	81.9	84.3	93.8	110.3	122.9	111.9	99.3	95.3	94.5
65°	694.9	342.7	74.1	79.6	88.2	103.2	118.2	109.5	97.7	93.8	92.2
67.5°	585.4	227.7	68.5	74.8	82.7	97.7	114.2	106.4	93.0	90.6	89.0
70°	423.9	133.1	63.0	70.1	77.2	91.4	108.7	100.1	87.5	85.9	81.9
72.5°	229.3	83.5	56.7	63.8	70.1	83.5	100.1	92.2	80.4	74.1	71.7
75°	104.8	60.7	50.4	56.7	61.5	73.3	89.8	81.1	71.7	63.8	62.2
77.5°	70.1	45.7	42.5	48.8	51.2	61.5	79.6	64.6	55.9	50.4	48.8
80°	48.1	33.9	34.7	40.2	39.4	48.8	59.9	52.0	44.1	45.7	41.8
82.5°	30.7	23.6	26.8	28.4	27.6	37.0	46.5	39.4	33.1	27.6	23.6
85°	13.4	12.6	15.8	16.5	16.5	20.5	24.4	19.7	15.0	11.0	11.0
87.5°	0.8	1.6	1.6	2.4	1.6	0.8	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
97.5°	4.0	4.0	5.0	7.0	13.0	9.0	4.0	3.0	2.0	2.0	2.0
100°	25.0	26.0	27.0	30.0	32.0	30.0	22.0	14.0	10.0	8.0	8.0
102.5°	48.0	49.0	48.0	50.0	51.0	50.0	45.0	38.0	32.0	28.0	28.0
105°	69.0	71.0	69.0	71.0	71.0	70.0	66.0	61.0	56.0	54.0	54.0
107.5°	91.0	92.0	91.0	92.0	93.0	91.0	88.0	84.0	80.0	77.0	78.0
110°	113.0	114.0	113.0	114.0	114.0	112.0	110.0	106.0	103.0	102.0	101.0



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CATALOG NUMBER: ISS-AF-350-LED-E1-T4FT-7050-ULG

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	135.0	137.0	135.0	136.0	136.0	134.0	132.0	129.0	126.0	124.0	124.0
115°	159.0	160.0	158.0	158.0	158.0	156.0	154.0	151.0	149.0	147.0	146.0
117.5°	180.0	182.0	180.0	181.0	180.0	179.0	177.0	174.0	172.0	170.0	169.0
120°	204.0	206.0	204.0	204.0	204.0	202.0	201.0	198.0	196.0	195.0	193.0
122.5°	232.0	233.0	229.0	228.0	228.0	227.0	226.0	223.0	221.0	220.0	219.0
125°	256.0	257.0	254.0	254.0	253.0	252.0	251.0	248.0	247.0	246.0	244.0
127.5°	278.0	281.0	278.0	277.0	278.0	276.0	274.0	272.0	270.0	269.0	267.0
130°	303.0	305.0	302.0	301.0	301.0	299.0	298.0	294.0	293.0	292.0	290.0
132.5°	327.0	329.0	326.0	325.0	325.0	322.0	321.0	318.0	317.0	314.0	313.0
135°	350.0	351.0	349.0	348.0	348.0	345.0	345.0	341.0	339.0	337.0	336.0
137.5°	372.0	374.0	370.0	369.0	369.0	367.0	367.0	364.0	363.0	360.0	359.0
140°	394.0	396.0	392.0	390.0	390.0	389.0	388.0	386.0	385.0	383.0	382.0
142.5°	415.0	416.0	413.0	412.0	412.0	410.0	410.0	407.0	408.0	406.0	404.0
145°	435.0	437.0	434.0	433.0	434.0	432.0	431.0	428.0	428.0	426.0	425.0
147.5°	453.0	456.0	453.0	452.0	454.0	453.0	452.0	448.0	447.0	444.0	444.0
150°	470.0	473.0	469.0	469.0	471.0	470.0	469.0	465.0	464.0	462.0	461.0
152.5°	486.0	489.0	486.0	486.0	487.0	486.0	485.0	482.0	483.0	480.0	479.0
155°	505.0	507.0	504.0	503.0	504.0	503.0	503.0	501.0	502.0	500.0	499.0
157.5°	520.0	523.0	518.0	517.0	519.0	519.0	519.0	516.0	517.0	515.0	513.0
160°	531.0	533.0	530.0	530.0	532.0	532.0	532.0	529.0	529.0	527.0	525.0
162.5°	537.0	540.0	538.0	540.0	542.0	541.0	541.0	538.0	539.0	536.0	535.0
165°	548.0	550.0	548.0	550.0	553.0	552.0	552.0	548.0	549.0	547.0	546.0
167.5°	561.0	563.0	559.0	558.0	560.0	560.0	561.0	558.0	559.0	556.0	555.0
170°	569.0	571.0	566.0	564.0	565.0	566.0	567.0	565.0	566.0	563.0	562.0
172.5°	568.0	571.0	568.0	567.0	569.0	568.0	569.0	567.0	569.0	566.0	565.0
175°	568.0	571.0	568.0	570.0	573.0	572.0	572.0	569.0	570.0	569.0	567.0
177.5°	574.0	577.0	574.0	574.0	577.0	577.0	578.0	574.0	575.0	573.0	572.0
180°	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0	576.0

(END OF REPORT)