

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: P227837

Luminaire Tested: **ISS-AF-450-LED-E1-T4FT-7060**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P227837
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29760)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: ISS-AF-450-LED-E1-T4FT-7060
Description: IMPACT ELITE LED QUATER SPHERE LUMINAIRE
LIGHT SQUARE WITH ACCULED OPTICS-TYPE IV FORWARD THROW
Light Source: (16) 5700K CCT, 70 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2963 lumens
Efficiency: N/A
Efficacy: 117.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G1

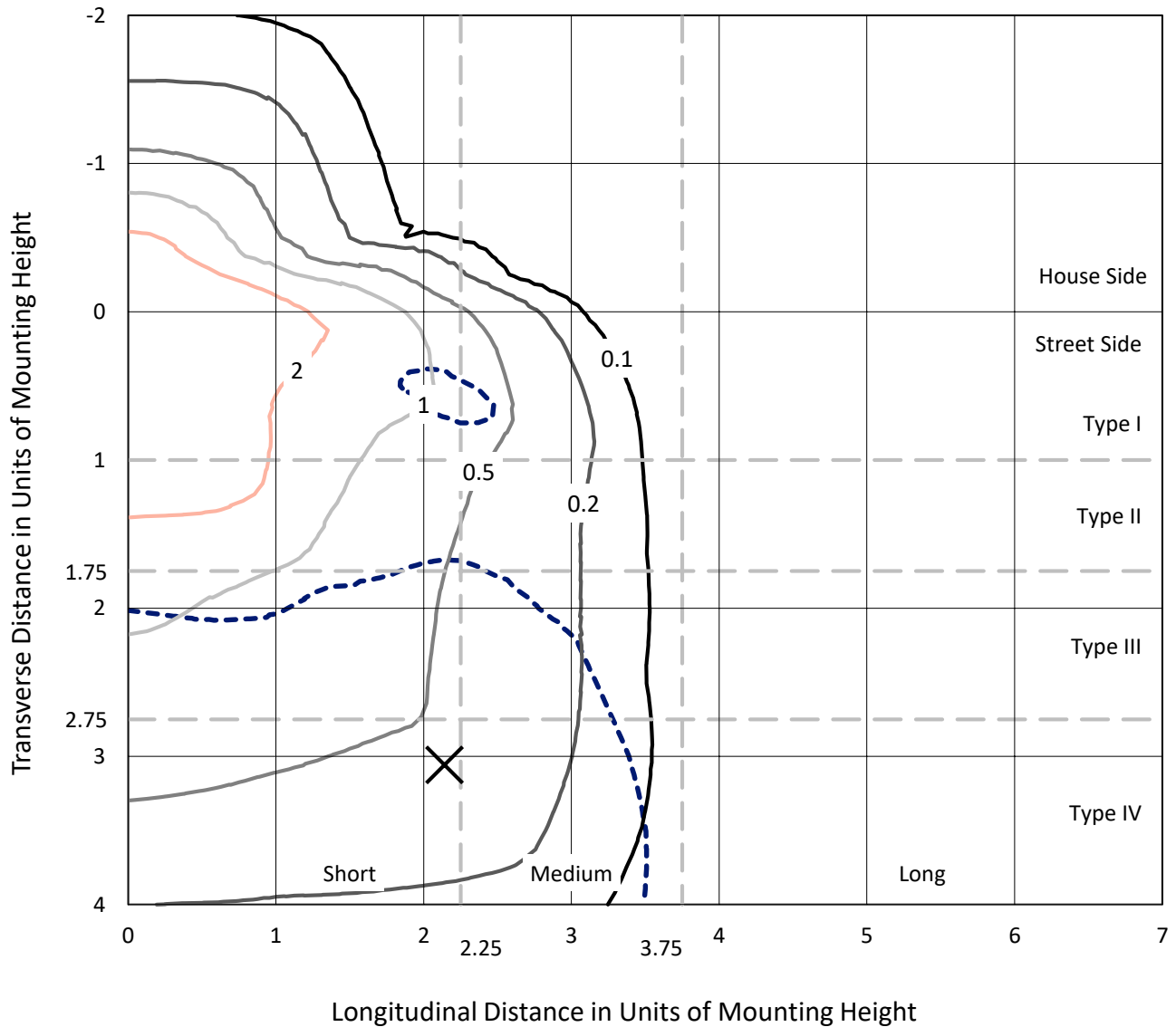
Input Watts (W): 25.31
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

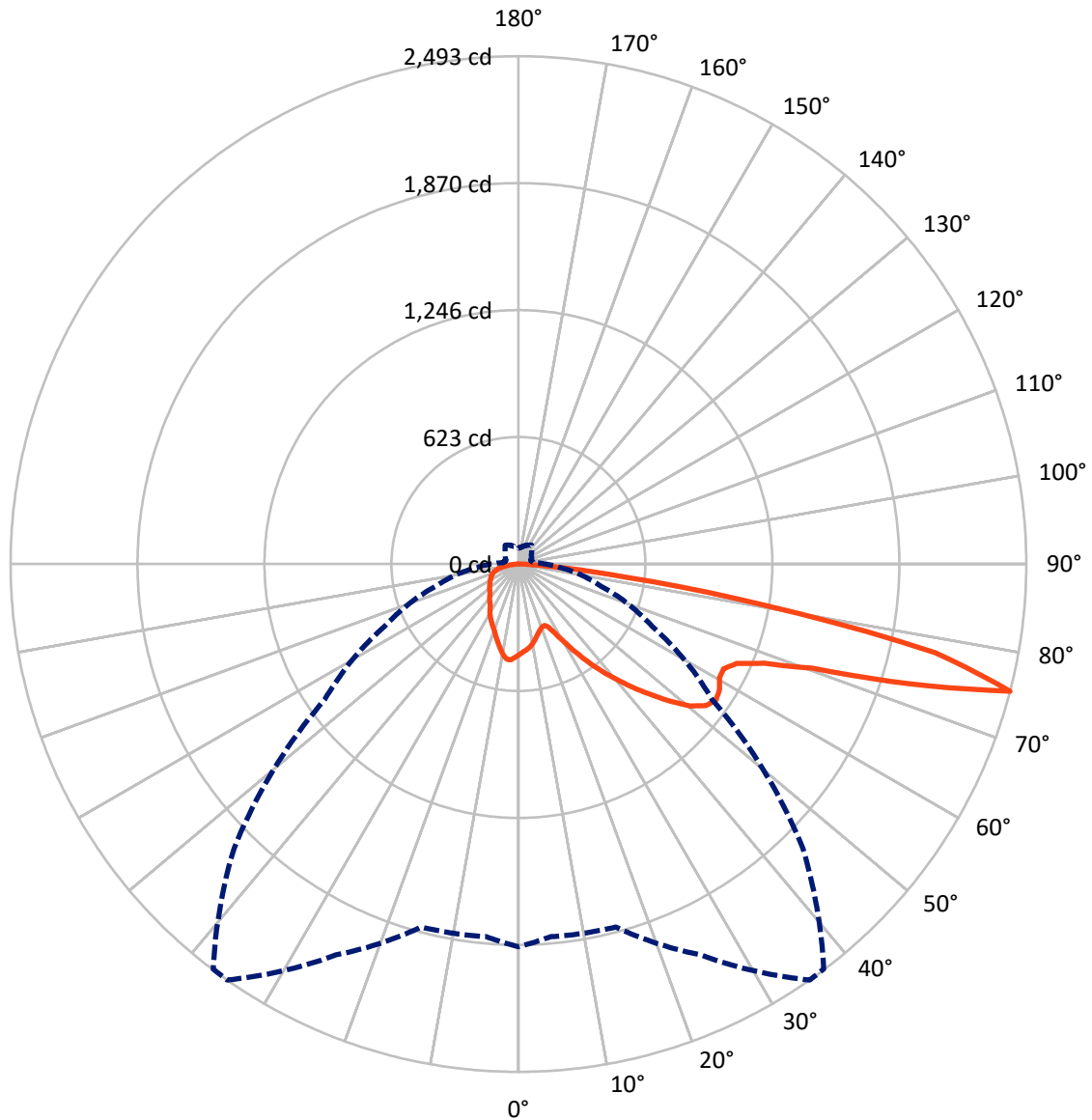
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.5 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
House Side	Lumens	594.7	0.0	594.7
	% Fixture	20.1	0.0	20.1
Street Side	Lumens	2368.3	0.0	2368.3
	% Fixture	79.9	0.0	79.9
Total	Lumens	2963.0	0.0	2963.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.8	1.4
10°-20°	110.3	3.7
20°-30°	174.4	5.9
30°-40°	281.5	9.5
40°-50°	416.6	14.1
50°-60°	535.6	18.1
60°-70°	663.2	22.4
70°-80°	668.3	22.6
80°-90°	71.4	2.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	2963.0	100.0
0°-180°	2963.0	100.0



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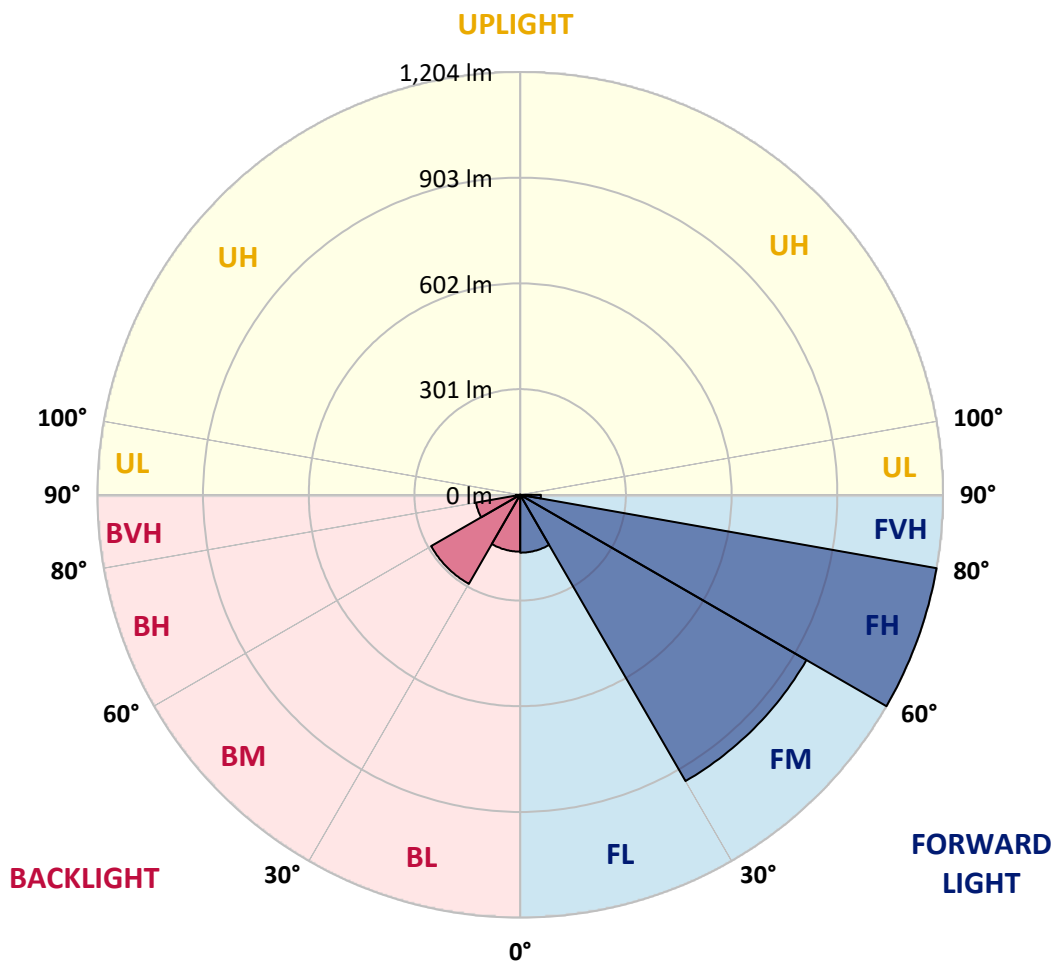
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	164.8	5.6			
FM	(30°-60°)	940.9	31.8			
FH	(60°-80°)	1203.7	40.6			G1/1800
FVH	(80°-90°)	59.0	2.0			G1/100
BL	(0°-30°)	161.7	5.5	B1/500		
BM	(30°-60°)	292.8	9.9	B1/1000		
BH	(60°-80°)	127.8	4.3	B1/500		G1/500
BVH	(80°-90°)	12.3	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	37°	45°	55°	65°	75°	85°
0°	445.1	445.1	445.1	445.1	445.1	445.1	445.1	445.1	445.1	445.1	445.1
2.5°	432.3	431.3	430.3	430.3	432.3	432.3	433.2	434.2	435.2	438.2	442.1
5°	420.4	419.4	418.4	419.4	422.4	422.4	425.3	427.3	429.3	434.2	439.2
7.5°	404.6	404.6	403.6	407.5	410.5	409.5	413.5	415.4	420.4	425.3	433.2
10°	383.8	383.8	383.8	388.7	393.7	393.7	396.6	401.6	405.6	412.5	422.4
12.5°	366.0	365.0	365.0	369.0	374.9	375.9	380.8	387.7	392.7	401.6	412.5
15°	360.1	358.1	353.1	353.1	356.1	356.1	364.0	373.9	381.8	390.7	403.6
17.5°	361.0	358.1	345.2	341.3	341.3	342.2	350.2	361.0	370.9	381.8	398.6
20°	369.9	365.0	341.3	332.4	330.4	331.4	338.3	349.2	361.0	375.9	394.7
22.5°	408.5	400.6	356.1	336.3	327.4	327.4	331.4	343.2	358.1	377.9	401.6
25°	497.5	484.7	405.6	369.9	343.2	340.3	333.3	345.2	363.0	386.8	421.4
27.5°	588.5	575.7	466.9	428.3	386.8	377.9	352.1	355.1	374.9	406.5	451.1
30°	664.7	653.8	544.0	499.5	444.1	434.2	394.7	375.9	395.7	434.2	495.6
32.5°	670.6	665.7	627.1	581.6	514.4	500.5	448.1	418.4	428.3	471.8	544.0
35°	726.0	722.1	701.3	657.8	590.5	574.7	519.3	473.8	470.8	513.4	599.4
37.5°	780.4	775.5	761.6	732.0	669.7	656.8	613.3	540.1	519.3	561.8	653.8
40°	831.9	825.0	807.1	790.3	744.8	744.8	698.3	603.4	565.8	604.4	699.3
42.5°	926.8	905.1	857.6	844.7	831.9	831.9	763.6	646.9	603.4	650.9	742.9
45°	1017.8	997.1	932.8	907.1	914.0	910.0	816.0	671.6	637.0	694.4	784.4
47.5°	1090.0	1071.2	1006.0	988.2	1007.9	992.1	859.6	691.4	679.5	740.9	819.0
50°	1154.3	1109.8	1046.5	1070.3	1095.0	1068.3	898.1	721.1	722.1	790.3	869.5
52.5°	1066.3	1061.4	1075.2	1130.6	1154.3	1124.7	932.8	758.7	767.6	853.6	926.8
55°	960.5	959.5	1040.6	1148.4	1177.1	1149.4	955.5	804.2	815.1	931.8	999.0
57.5°	939.7	929.8	985.2	1110.8	1163.2	1143.5	967.4	846.7	860.6	1030.7	1070.3
60°	1007.0	988.2	979.3	1070.3	1133.6	1123.7	982.2	897.2	916.0	1143.5	1136.5
62.5°	1153.3	1127.6	1064.3	1073.2	1130.6	1122.7	1017.8	956.5	978.3	1256.2	1174.1
65°	1347.2	1328.4	1227.5	1155.3	1177.1	1166.2	1082.1	1031.7	1043.6	1337.3	1131.6
67.5°	1559.9	1534.2	1424.4	1325.5	1297.8	1277.0	1184.0	1120.7	1078.2	1325.5	1017.8
70°	1800.3	1772.6	1677.6	1575.7	1528.2	1505.5	1362.1	1197.9	1065.3	1194.9	803.2
72.5°	2096.0	2058.4	2006.0	2016.9	2009.0	1945.7	1645.9	1223.6	971.3	889.2	479.7
75°	1878.4	1835.9	1844.8	2116.8	2492.7	2489.7	1974.3	1160.3	724.1	419.4	207.7
77.5°	673.6	744.8	1098.9	1585.6	2090.1	2087.1	1528.2	726.0	310.6	179.0	125.6
80°	169.1	172.1	273.0	650.9	1220.6	1210.7	866.5	274.0	129.6	108.8	86.1
82.5°	54.4	58.4	99.9	224.5	522.3	510.4	269.0	90.0	81.1	70.2	52.4
85°	17.8	17.8	35.6	77.2	172.1	165.2	54.4	32.6	44.5	36.6	23.7
87.5°	0.0	0.0	1.0	2.0	4.0	2.0	0.0	2.0	5.9	6.9	4.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	445.1	445.1	445.1	445.1	445.1	445.1	445.1	445.1	445.1	445.1	445.1
2.5°	445.1	444.1	448.1	451.1	452.0	455.0	458.0	460.0	459.0	458.0	458.0
5°	444.1	445.1	452.0	458.0	462.9	467.9	471.8	473.8	472.8	472.8	472.8
7.5°	438.2	442.1	450.1	460.0	466.9	469.8	470.8	467.9	465.9	462.9	462.9
10°	428.3	434.2	447.1	458.0	460.9	457.0	451.1	445.1	437.2	432.3	432.3
12.5°	420.4	427.3	443.1	452.0	448.1	438.2	425.3	415.4	407.5	401.6	400.6
15°	413.5	422.4	439.2	441.2	432.3	415.4	398.6	387.7	378.8	374.9	374.9
17.5°	408.5	420.4	435.2	429.3	411.5	389.7	373.9	365.0	358.1	354.1	353.1
20°	409.5	424.3	431.3	414.5	388.7	366.0	351.1	346.2	341.3	339.3	339.3
22.5°	420.4	434.2	430.3	401.6	368.0	342.2	332.4	331.4	329.4	327.4	326.4
25°	444.1	454.0	433.2	388.7	346.2	320.5	315.5	318.5	317.5	315.5	315.5
27.5°	476.8	478.7	438.2	375.9	322.5	299.7	299.7	304.7	302.7	299.7	301.7
30°	516.3	505.5	440.2	355.1	294.8	279.9	282.9	285.9	283.9	279.9	279.9
32.5°	558.9	533.2	440.2	328.4	268.1	262.1	263.1	264.1	260.1	255.2	255.2
35°	600.4	559.9	435.2	296.7	247.3	244.3	243.3	247.3	244.3	237.4	237.4
37.5°	640.0	580.6	422.4	264.1	231.5	230.5	233.4	231.5	227.5	217.6	215.6
40°	667.7	594.5	396.6	237.4	218.6	224.5	222.6	211.7	205.7	198.8	198.8
42.5°	692.4	601.4	365.0	216.6	209.7	217.6	209.7	195.9	187.9	186.9	187.9
45°	715.2	607.3	334.3	199.8	198.8	209.7	199.8	185.0	176.1	176.1	177.1
47.5°	736.9	613.3	303.7	184.0	186.0	197.8	191.9	177.1	168.2	162.2	162.2
50°	771.5	627.1	259.2	167.2	171.1	187.9	186.0	169.1	159.3	150.4	148.4
52.5°	813.1	650.9	210.7	149.4	160.2	179.0	179.0	162.2	151.3	139.5	137.5
55°	868.5	676.6	169.1	136.5	149.4	169.1	172.1	159.3	143.4	132.5	130.6
57.5°	923.9	685.5	136.5	123.6	135.5	159.3	167.2	153.3	134.5	126.6	125.6
60°	962.4	656.8	114.7	112.8	125.6	147.4	160.2	146.4	128.6	120.7	120.7
62.5°	956.5	569.8	102.9	105.8	117.7	138.5	154.3	140.5	124.6	119.7	118.7
65°	872.4	430.3	93.0	99.9	110.8	129.6	148.4	137.5	122.7	117.7	115.7
67.5°	734.9	285.9	86.1	94.0	103.9	122.7	143.4	133.5	116.7	113.8	111.8
70°	532.2	167.2	79.1	88.0	96.9	114.7	136.5	125.6	109.8	107.8	102.9
72.5°	287.8	104.8	71.2	80.1	88.0	104.8	125.6	115.7	100.9	93.0	90.0
75°	131.6	76.2	63.3	71.2	77.2	92.0	112.8	101.9	90.0	80.1	78.1
77.5°	88.0	57.4	53.4	61.3	64.3	77.2	99.9	81.1	70.2	63.3	61.3
80°	60.3	42.5	43.5	50.4	49.5	61.3	75.2	65.3	55.4	57.4	52.4
82.5°	38.6	29.7	33.6	35.6	34.6	46.5	58.4	49.5	41.5	34.6	29.7
85°	16.8	15.8	19.8	20.8	20.8	25.7	30.7	24.7	18.8	13.8	13.8
87.5°	1.0	2.0	2.0	3.0	2.0	1.0	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

(END OF REPORT)