

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: P453702

Luminaire Tested: **GALN-SA4D-730-U-AFL-HSS**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453702
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-25)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4D-730-U-AFL-HSS
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22834 lumens
Efficiency: N/A
Efficacy: 93.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G2

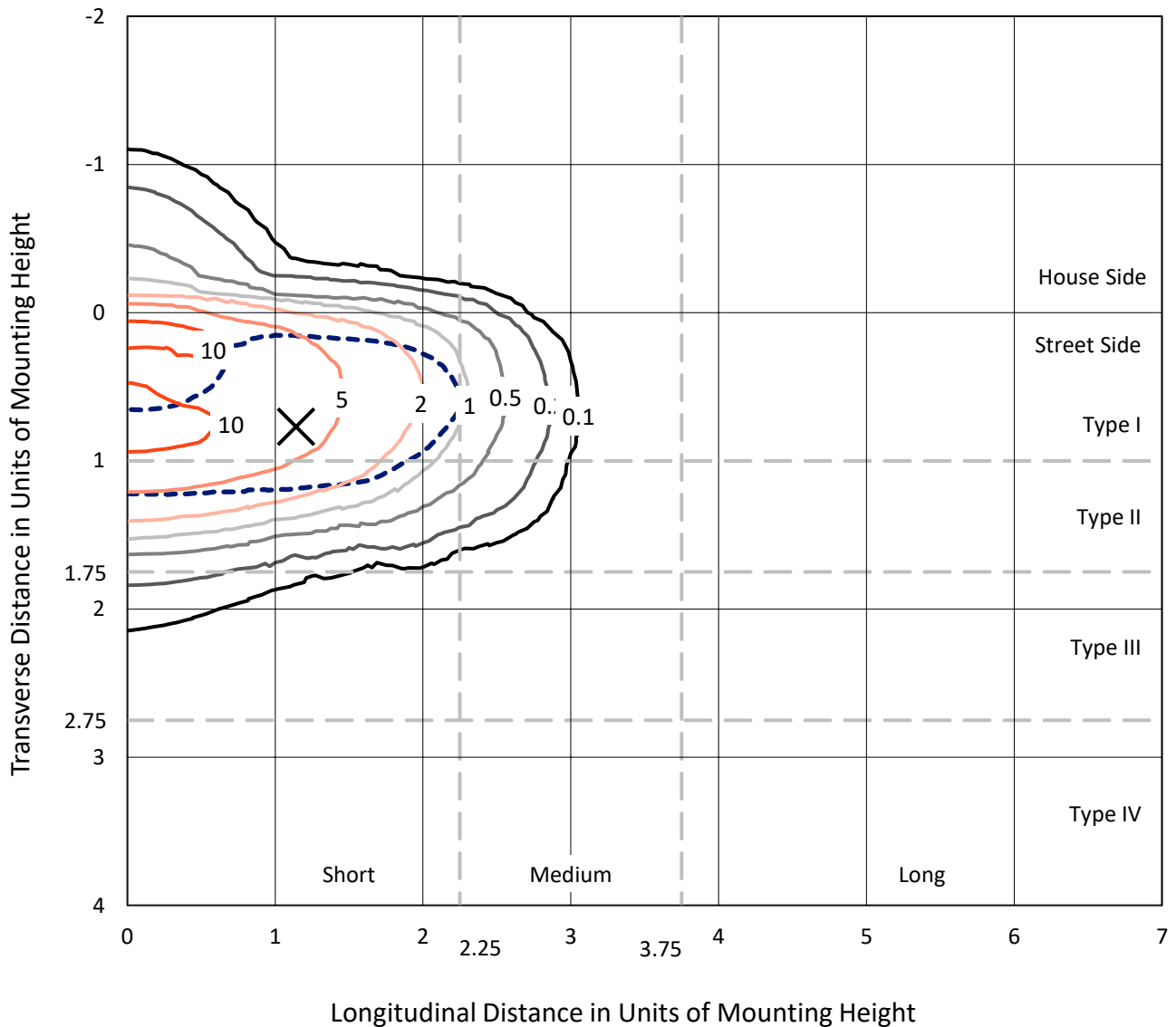
Input Watts (W): 245
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

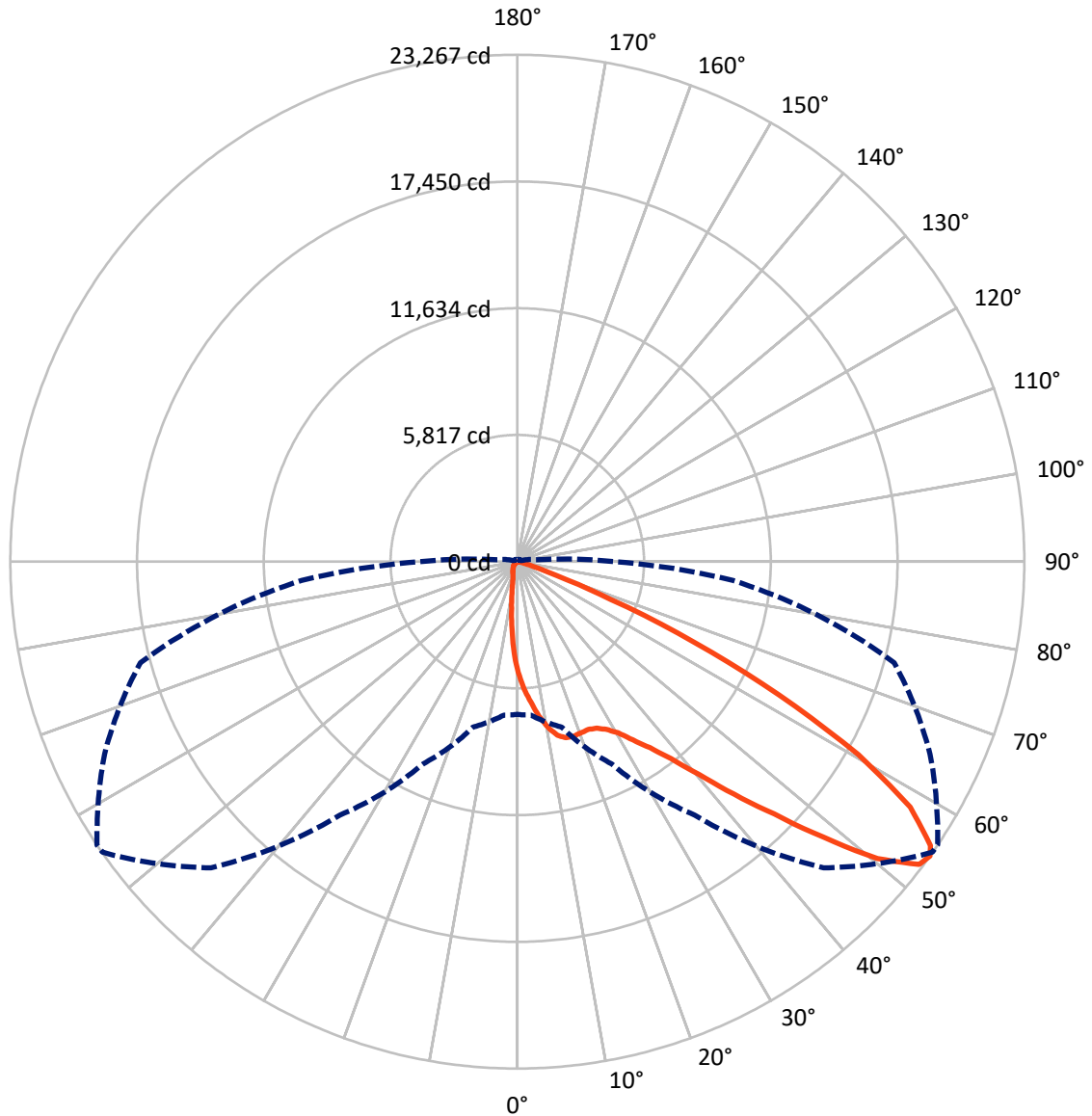
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.2 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 56-Deg Lateral - - - Horizontal Cone Through 54-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1079.8	0.0	1079.8
	% Fixture	4.7	0.0	4.7
Street Side	Lumens	21754.2	0.0	21754.2
	% Fixture	95.3	0.0	95.3
Total	Lumens	22834.0	0.0	22834.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	448.3	2.0
10°-20°	1211.9	5.3
20°-30°	2098.8	9.2
30°-40°	3622.9	15.9
40°-50°	6166.4	27.0
50°-60°	6102.4	26.7
60°-70°	2785.3	12.2
70°-80°	357.7	1.6
80°-90°	40.3	0.2
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°	22834.0	100.0
0°-180°	22834.0	100.0

Coefficient of Utilization



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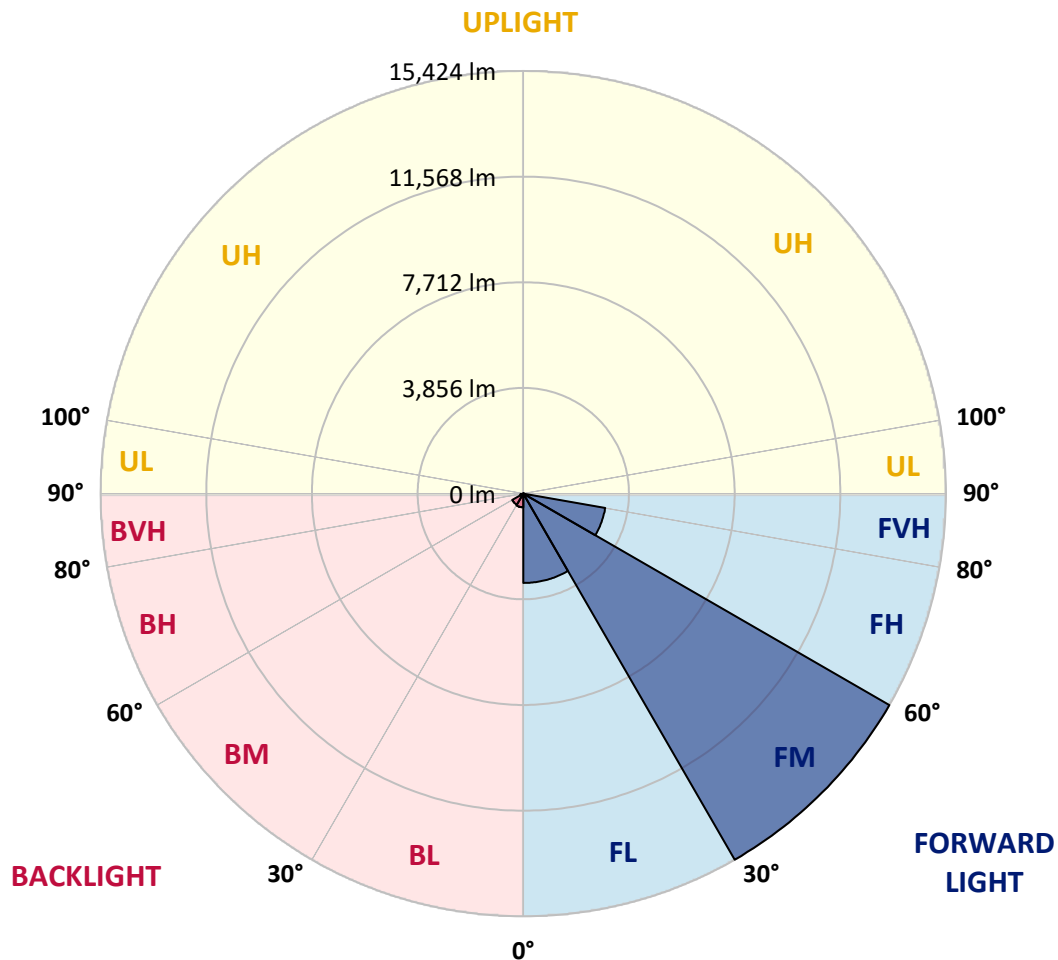
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3259.6	14.3			
FM	(30°-60°)	15423.8	67.5			
FH	(60°-80°)	3034.8	13.3			G2/5000
FVH	(80°-90°)	36.0	0.2			G1/100
BL	(0°-30°)	499.4	2.2	B1/500		
BM	(30°-60°)	468.0	2.0	B1/1000		
BH	(60°-80°)	108.1	0.5	B0/110		G0/110
BVH	(80°-90°)	4.3	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	65°	75°	85°
0°	5073.1	5073.1	5073.1	5073.1	5073.1	5073.1	5073.1	5073.1	5073.1	5073.1	5073.1
2.5°	6447.2	6402.6	6340.9	6293.2	6180.7	6019.0	5848.0	5848.0	5683.1	5453.6	5219.4
5°	7436.3	7407.0	7346.9	7223.7	7097.4	6870.9	6527.3	6467.3	6173.0	5757.1	5319.5
7.5°	7838.4	7852.2	7855.3	7823.0	7762.9	7539.5	7199.0	7157.4	6687.6	6129.9	5450.5
10°	7453.2	7521.0	7587.2	7721.3	7910.8	7964.7	7772.1	7729.0	7266.8	6507.3	5592.2
12.5°	6880.1	6917.1	6954.1	7165.1	7545.7	7981.6	8183.4	8181.9	7790.6	6883.2	5772.5
15°	6613.6	6646.0	6649.0	6743.0	7072.7	7707.4	8359.1	8382.2	8302.1	7346.9	5966.6
17.5°	6669.1	6695.3	6673.7	6696.8	6869.3	7405.5	8339.0	8416.1	8716.5	7792.1	6142.2
20°	7031.1	7081.9	6998.8	6934.1	6986.4	7325.4	8271.3	8379.1	9009.2	8226.6	6302.4
22.5°	7681.2	7709.0	7604.2	7427.0	7334.6	7493.3	8252.8	8359.1	9258.8	8582.5	6394.9
25°	8403.7	8394.5	8279.0	8080.2	7886.1	7832.2	8374.5	8470.0	9465.2	8902.9	6422.6
27.5°	9126.3	9154.0	8959.9	8713.4	8480.8	8340.6	8647.2	8718.0	9697.8	9268.0	6456.5
30°	9965.9	9921.2	9730.2	9448.2	9181.7	8986.1	9086.2	9106.2	10018.3	9751.7	6545.8
32.5°	11058.1	10934.9	10720.7	10227.8	10036.7	9705.5	9730.2	9754.8	10408.0	10230.8	6653.7
35°	12540.1	12534.0	12115.0	11451.0	10985.7	10574.4	10466.6	10486.6	10998.0	10942.6	6892.5
37.5°	14324.1	14348.8	13871.2	13202.6	12346.0	11692.8	11471.0	11474.1	11894.7	11925.5	7256.0
40°	15776.9	15841.6	15556.6	15105.2	14259.4	13238.0	12865.2	12831.3	13154.8	13116.3	7775.2
42.5°	16402.3	16462.4	16568.7	16725.8	16260.6	15417.9	14538.2	14584.5	14683.1	14413.5	8357.5
45°	16095.8	16191.3	16608.8	17579.3	18016.8	17733.4	16684.2	16522.5	16105.0	15823.1	8942.9
47.5°	14818.6	15051.3	15749.1	17365.2	18896.5	19854.7	19106.0	18891.9	17528.5	16852.2	9315.8
50°	12718.8	12732.7	13704.8	15770.7	18440.5	21193.5	21578.6	21418.4	18854.9	17429.9	9503.7
52.5°	9220.2	9523.7	10414.2	12806.7	16465.5	20990.1	23154.6	23088.3	20222.9	17725.7	9774.8
54°	7009.5	7068.1	7859.9	10233.9	14196.2	19873.2	23251.6	23267.1	20902.3	17904.4	9935.1
55°	5746.3	5606.1	6438.0	8718.0	12648.0	18885.7	22934.3	23008.2	21207.3	17996.8	10053.7
57.5°	2723.7	2725.2	3361.5	4598.6	7921.6	14664.6	20994.7	21256.6	21241.2	18155.5	10418.8
60°	1378.8	1388.0	1528.2	2122.9	3913.0	9748.7	17359.0	17982.9	19606.7	18178.6	10539.0
62.5°	964.4	953.6	930.5	1021.4	1646.9	4954.4	12923.7	13466.0	16658.1	17298.9	10156.9
65°	825.7	802.6	737.9	724.1	831.9	1973.5	8049.4	8933.7	12718.8	14978.8	9069.3
67.5°	705.6	696.3	637.8	602.4	588.5	859.6	4153.3	4618.6	8693.4	10767.0	6869.3
70°	599.3	594.7	559.2	514.5	476.0	514.5	1540.6	1908.8	4845.1	5797.1	3241.3
72.5°	486.8	491.4	497.6	440.6	400.5	365.1	657.8	765.7	2027.4	2072.1	1133.9
75°	426.7	422.1	422.1	383.6	334.3	271.1	362.0	389.8	620.8	576.2	263.4
77.5°	300.4	289.6	338.9	315.8	278.8	192.6	206.4	218.8	257.3	220.3	123.2
80°	208.0	208.0	217.2	283.5	251.1	140.2	126.3	135.6	152.5	130.9	70.9
82.5°	117.1	120.2	141.7	151.0	146.4	94.0	83.2	84.7	101.7	89.4	44.7
85°	13.9	23.1	81.6	80.1	60.1	41.6	46.2	47.8	63.2	55.5	26.2
87.5°	1.5	3.1	16.9	21.6	15.4	16.9	16.9	16.9	21.6	24.6	18.5
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°	5073.1	5073.1	5073.1	5073.1	5073.1	5073.1	5073.1	5073.1	5073.1	5073.1	5073.1
2.5°	5093.1	4976.0	4697.2	4373.6	4167.2	3831.4	3547.9	3343.0	3292.2	3193.6	3222.8
5°	5086.9	4843.5	4275.0	3674.2	3033.4	2555.8	2199.9	1919.5	1796.3	1714.6	1657.6
7.5°	5090.0	4709.5	3797.5	2840.8	2075.1	1606.8	1277.1	1106.1	992.1	944.4	950.5
10°	5099.2	4558.5	3242.9	2104.4	1400.4	1038.3	836.5	754.9	716.4	710.2	708.7
12.5°	5120.8	4393.7	2712.9	1562.1	979.8	754.9	677.8	650.1	637.8	637.8	633.2
15°	5143.9	4211.9	2272.3	1161.6	754.9	648.6	613.1	599.3	591.6	591.6	590.0
17.5°	5143.9	4002.4	1861.0	901.2	650.1	596.2	568.5	550.0	543.8	543.8	542.3
20°	5111.6	3759.0	1495.9	725.6	590.0	546.9	519.2	499.1	491.4	488.4	486.8
22.5°	4999.1	3433.9	1190.9	623.9	540.7	503.8	468.3	445.2	439.1	436.0	437.5
25°	4798.8	3067.3	942.8	548.4	496.1	451.4	420.6	403.6	397.5	397.5	399.0
27.5°	4592.4	2683.7	747.2	491.4	442.1	402.1	377.4	366.7	365.1	369.7	371.3
30°	4401.4	2298.5	605.4	445.2	394.4	360.5	343.5	340.5	340.5	342.0	343.5
32.5°	4188.8	1961.1	506.8	405.2	355.9	326.6	317.4	317.4	320.4	320.4	323.5
35°	4054.7	1671.5	445.2	366.7	326.6	301.9	295.8	297.3	301.9	308.1	311.2
37.5°	3982.3	1440.4	405.2	335.8	298.9	281.9	275.8	278.8	289.6	300.4	301.9
40°	3988.5	1266.3	372.8	309.7	277.3	258.8	254.2	263.4	274.2	285.0	286.5
42.5°	4056.3	1136.9	342.0	278.8	258.8	232.6	231.1	240.3	244.9	255.7	257.3
45°	4136.4	1043.0	309.7	246.5	224.9	201.8	203.4	211.1	217.2	234.2	237.2
47.5°	4161.0	978.3	272.7	209.5	184.9	177.2	178.7	183.3	195.7	211.1	212.6
50°	4188.8	938.2	237.2	177.2	157.1	155.6	157.1	160.2	167.9	174.1	172.5
52.5°	4307.4	936.7	208.0	154.1	134.0	137.1	138.7	137.1	130.9	121.7	118.6
54°	4418.3	941.3	194.1	143.3	123.2	127.9	126.3	118.6	103.2	94.0	89.4
55°	4507.7	945.9	186.4	135.6	117.1	118.6	120.2	104.8	84.7	75.5	72.4
57.5°	4683.3	935.1	167.9	118.6	103.2	97.1	95.5	69.3	46.2	40.1	37.0
60°	4595.5	844.2	152.5	101.7	87.8	78.6	64.7	38.5	23.1	16.9	16.9
62.5°	4250.4	716.4	135.6	83.2	72.4	60.1	33.9	21.6	10.8	6.2	4.6
65°	3802.1	602.4	121.7	66.2	57.0	38.5	18.5	13.9	4.6	0.0	0.0
67.5°	2826.9	446.8	103.2	52.4	43.1	24.6	12.3	7.7	1.5	0.0	0.0
70°	1309.5	272.7	87.8	40.1	30.8	18.5	9.2	4.6	0.0	0.0	0.0
72.5°	375.9	171.0	72.4	29.3	21.6	15.4	7.7	3.1	1.5	0.0	0.0
75°	130.9	137.1	53.9	21.6	16.9	10.8	6.2	3.1	1.5	0.0	0.0
77.5°	78.6	110.9	33.9	18.5	13.9	9.2	6.2	3.1	1.5	1.5	0.0
80°	44.7	73.9	21.6	15.4	12.3	7.7	4.6	3.1	1.5	1.5	0.0
82.5°	24.6	35.4	16.9	13.9	10.8	7.7	4.6	3.1	1.5	1.5	1.5
85°	20.0	18.5	13.9	12.3	9.2	6.2	4.6	1.5	0.0	0.0	0.0
87.5°	15.4	12.3	12.3	12.3	9.2	6.2	4.6	1.5	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)