

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: P300651

Luminaire Tested: **GLNA-AF-09-LED-E1-AFL-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300651
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24297)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-09-LED-E1-AFL-HSS
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive Frontline WITH HOUSESIDE SHIELD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 39575.2 lumens
Efficiency: N/A
Efficacy: 79.0 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B3 - U0 - G3

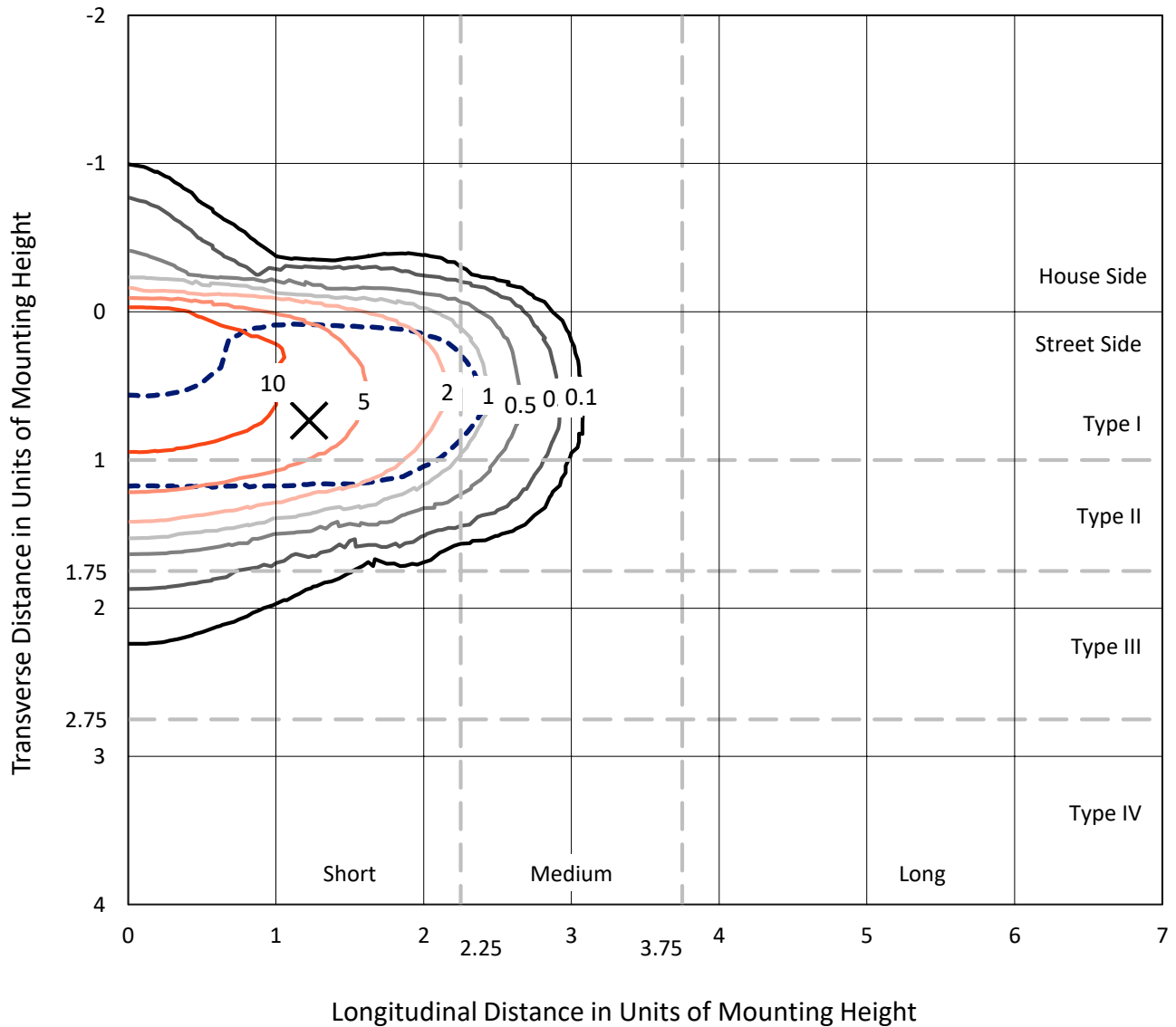
Input Watts (W): 501
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

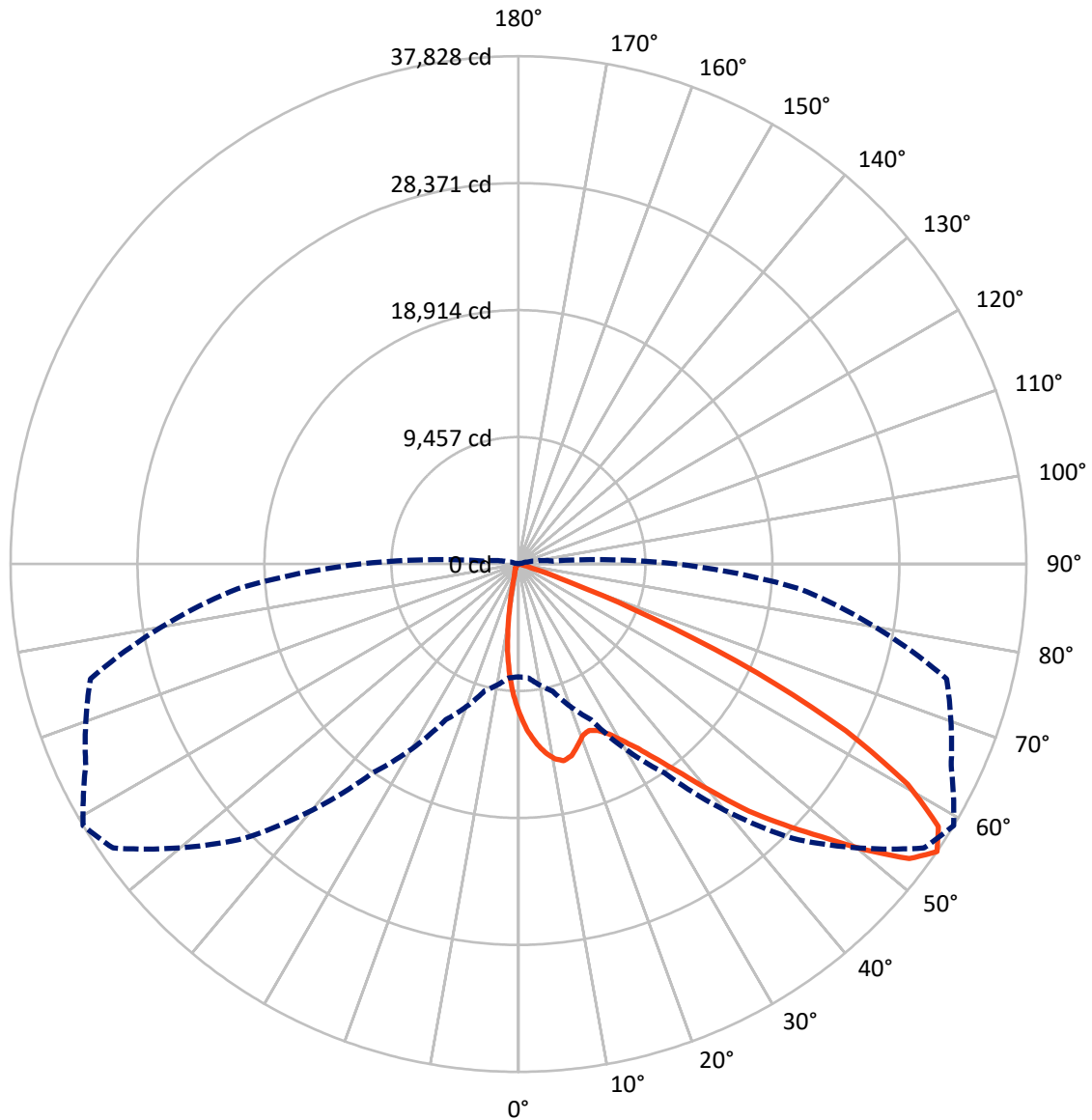
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 15.4 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 55-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2210.5	0.0	2210.5
	% Fixture	5.6	0.0	5.6
Street Side	Lumens	37364.7	0.0	37364.7
	% Fixture	94.4	0.0	94.4
Total	Lumens	39575.2	0.0	39575.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	933.1	2.4
10°-20°	2234.1	5.6
20°-30°	3801.7	9.6
30°-40°	6538.0	16.5
40°-50°	10094.0	25.5
50°-60°	10147.6	25.6
60°-70°	5203.8	13.1
70°-80°	563.9	1.4
80°-90°	59.0	0.1
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°	39575.2	100.0
0°-180°	39575.2	100.0



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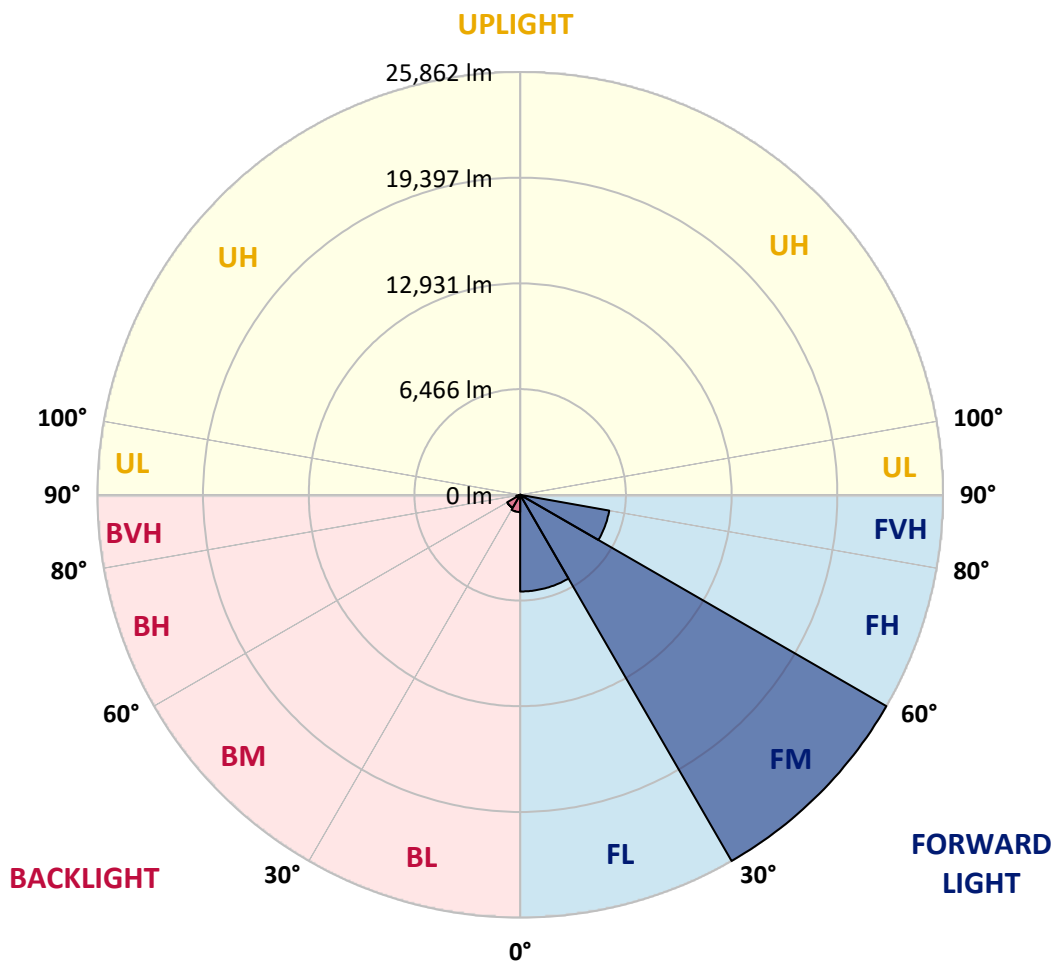
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	5913.8	14.9			
FM (30°-60°)	25862.2	65.3			
FH (60°-80°)	5530.9	14.0			G3/7500
FVH (80°-90°)	57.7	0.1			G1/100
BL (0°-30°)	1055.1	2.7	B3/2500		
BM (30°-60°)	917.4	2.3	B1/1000		
BH (60°-80°)	236.8	0.6	B1/500		G1/500
BVH (80°-90°)	1.2	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	11140.3	11140.3	11140.3	11140.3	11140.3	11140.3	11140.3	11140.3	11140.3	11140.3	11140.3
2.5°	13181.5	13041.4	12999.3	12971.3	12842.8	12681.7	12462.2	12359.4	12149.2	11810.6	11394.8
5°	14388.9	14363.2	14269.8	14218.4	14080.6	13851.8	13501.4	13333.3	12999.3	12429.5	11684.4
7.5°	13861.1	14022.3	14150.7	14365.6	14636.5	14627.1	14332.9	14157.7	13784.0	13032.0	12006.7
10°	11822.2	11953.0	12163.2	12651.3	13646.2	14524.4	14870.0	14743.9	14445.0	13585.5	12317.4
12.5°	11422.9	11408.8	11446.2	11588.7	12109.5	13361.3	14779.0	15033.5	14972.8	14092.3	12611.6
15°	11635.4	11619.0	11614.4	11663.4	11789.5	12317.4	14094.7	14825.7	15295.1	14561.8	12861.5
17.5°	12230.9	12160.9	12123.5	12083.8	12046.4	12177.2	13272.6	14244.1	15344.1	14972.8	13069.4
20°	13251.5	13134.8	12997.0	12772.8	12562.6	12497.2	12926.9	13646.2	15169.0	15285.8	13204.8
22.5°	14533.7	14384.3	14146.0	13737.3	13309.9	13062.4	13097.4	13457.1	14907.4	15626.7	13267.9
25°	15974.7	15783.2	15465.6	14898.1	14269.8	13830.7	13601.9	13728.0	14788.3	16026.1	13340.3
27.5°	17518.5	17306.0	16890.2	16117.2	15404.9	14811.7	14344.6	14328.2	14991.5	16549.3	13457.1
30°	19048.2	19015.5	18473.7	17656.3	16712.7	15991.1	15318.5	15232.0	15559.0	17273.3	13688.3
32.5°	21089.4	20844.2	20180.9	19340.2	18251.8	17385.4	16589.0	16388.1	16430.1	18116.4	14045.6
35°	23663.1	23394.6	22460.4	21299.6	20082.8	19059.9	18179.4	17906.2	17803.4	19496.6	14648.2
37.5°	25326.0	25321.3	24735.1	23553.4	22247.8	21119.8	20162.3	19842.3	19634.4	21164.2	15582.4
40°	25370.4	25480.2	25557.2	25545.5	24616.0	23576.7	22726.6	22331.9	21848.5	23392.2	16789.8
42.5°	24008.8	24291.4	24971.0	26124.7	26675.9	26262.5	25545.5	25157.9	24438.5	25776.8	18261.2
45°	22168.4	22364.6	23553.4	25678.7	27792.3	28925.0	28378.5	27684.9	26736.6	28264.1	19580.7
47.5°	21344.0	21379.0	22147.4	24480.6	27876.4	31106.3	31438.0	30309.9	28824.6	30267.9	20613.0
50°	18880.1	18943.1	20003.4	22404.3	26890.8	32136.3	34511.5	33441.8	31101.7	31811.7	20989.0
52.5°	14230.1	14318.9	15664.1	18992.2	24181.6	31697.2	36711.5	36452.3	33596.0	32566.0	21010.0
55°	8396.1	8512.8	9797.4	12784.5	19020.2	28904.0	36875.0	37827.9	35564.8	33012.1	20977.3
57.5°	3921.3	4003.0	4738.7	6586.1	11829.2	22843.4	34413.4	36884.3	36650.8	33248.0	21208.5
60°	2083.3	2106.6	2284.1	2851.6	5345.9	14484.7	29609.3	33306.4	35660.5	33574.9	21491.1
62.5°	1592.8	1599.8	1590.5	1658.2	2246.7	6429.6	22381.0	27381.2	31673.9	33329.7	21178.2
65°	1380.3	1391.9	1326.6	1310.2	1441.0	2293.4	13295.9	19517.7	24889.3	30020.3	19045.9
67.5°	1237.8	1242.5	1163.1	1095.3	1118.7	1240.1	5245.5	10684.8	16474.5	22004.9	13805.1
70°	1139.7	1135.0	1048.6	941.2	910.8	847.8	1667.5	3916.6	7872.9	11159.0	6420.3
72.5°	1008.9	1011.3	969.2	829.1	756.7	593.2	773.0	1142.1	2349.5	3040.8	1504.1
75°	894.5	882.8	831.4	742.7	623.6	390.0	383.0	509.1	724.0	719.3	324.6
77.5°	646.9	635.3	651.6	609.6	478.8	252.2	191.5	245.2	294.3	284.9	91.1
80°	474.1	467.1	420.4	506.8	422.7	172.8	119.1	130.8	151.8	128.5	28.0
82.5°	324.6	322.3	296.6	280.3	240.6	105.1	74.7	81.7	98.1	72.4	14.0
85°	51.4	58.4	214.9	170.5	142.5	46.7	51.4	56.1	65.4	39.7	4.7
87.5°	0.0	0.0	100.4	88.7	28.0	18.7	30.4	32.7	32.7	21.0	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



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	11140.3	11140.3	11140.3	11140.3	11140.3	11140.3	11140.3	11140.3	11140.3	11140.3	11140.3
2.5°	11182.3	10948.8	10516.7	10070.6	9657.2	9164.4	8825.8	8571.2	8277.0	8197.6	8370.4
5°	11259.4	10818.0	9888.4	8877.2	7926.6	6873.3	6067.6	5430.0	4853.1	4657.0	4834.5
7.5°	11380.8	10724.6	9208.8	7543.6	5890.1	4245.9	3120.2	2379.9	1908.1	1768.0	1842.7
10°	11502.3	10589.1	8421.8	5964.8	3704.1	2066.9	1345.2	1074.3	973.9	952.9	964.6
12.5°	11602.7	10406.9	7461.9	4241.2	1980.5	1107.0	880.5	836.1	822.1	822.1	826.8
15°	11663.4	10131.3	6324.5	2697.5	1139.7	836.1	768.4	754.4	754.4	756.7	761.4
17.5°	11656.4	9781.0	5079.7	1632.5	852.5	740.3	700.6	689.0	686.6	691.3	693.6
20°	11570.0	9323.3	3830.2	1076.7	742.7	675.0	635.3	614.2	611.9	616.6	621.2
22.5°	11406.5	8758.1	2739.5	829.1	670.3	611.9	562.9	544.2	544.2	548.8	553.5
25°	11208.0	8066.8	1873.1	703.0	604.9	544.2	497.5	481.1	485.8	497.5	499.8
27.5°	10960.4	7289.1	1272.8	602.6	525.5	476.4	441.4	429.7	441.4	457.8	462.4
30°	10747.9	6478.6	908.5	520.8	446.1	411.0	390.0	390.0	406.4	436.7	443.7
32.5°	10584.4	5693.9	700.6	460.1	387.7	357.3	345.7	357.3	383.0	413.4	420.4
35°	10563.4	5047.0	593.2	411.0	345.7	315.3	310.6	331.6	357.3	380.7	385.4
37.5°	10724.6	4449.1	534.8	371.3	308.3	280.3	275.6	301.3	327.0	355.0	362.0
40°	11030.5	3979.7	492.8	334.0	277.9	247.6	238.2	256.9	291.9	329.3	338.6
42.5°	11427.5	3592.0	446.1	296.6	247.6	205.5	193.8	214.9	252.2	291.9	303.6
45°	11805.9	3258.0	394.7	254.6	207.9	158.8	154.1	182.2	200.9	240.6	249.9
47.5°	12013.7	2963.7	350.3	207.9	161.1	128.5	128.5	135.5	154.1	200.9	210.2
50°	11943.7	2727.8	303.6	154.1	112.1	98.1	98.1	95.8	123.8	161.1	168.2
52.5°	11803.5	2592.4	261.6	119.1	77.1	70.1	63.1	70.1	86.4	102.8	105.1
55°	11782.5	2569.0	219.5	95.8	53.7	46.7	35.0	35.0	35.0	32.7	28.0
57.5°	11946.0	2606.4	184.5	77.1	39.7	30.4	18.7	0.0	0.0	0.0	0.0
60°	12114.2	2646.1	158.8	53.7	28.0	16.3	2.3	0.0	0.0	0.0	0.0
62.5°	11833.9	2557.4	133.1	32.7	21.0	7.0	0.0	0.0	0.0	0.0	0.0
65°	10395.2	2176.7	105.1	23.4	14.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	7394.1	1457.3	70.1	14.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0
70°	3374.8	609.6	44.4	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	721.7	189.2	30.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	147.1	137.8	11.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	46.7	217.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	28.0	156.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	4.7	23.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	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)