

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: P300687

Luminaire Tested: **GLNA-AF-05-LED-E1-AFL-800-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P300687  
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-05-LED-E1-AFL-800-HSS  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive  
Frontline WITH HOUSESIDE SHIELD OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 17874.5 lumens  
Efficiency: N/A  
Efficacy: 85.1 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 210  
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

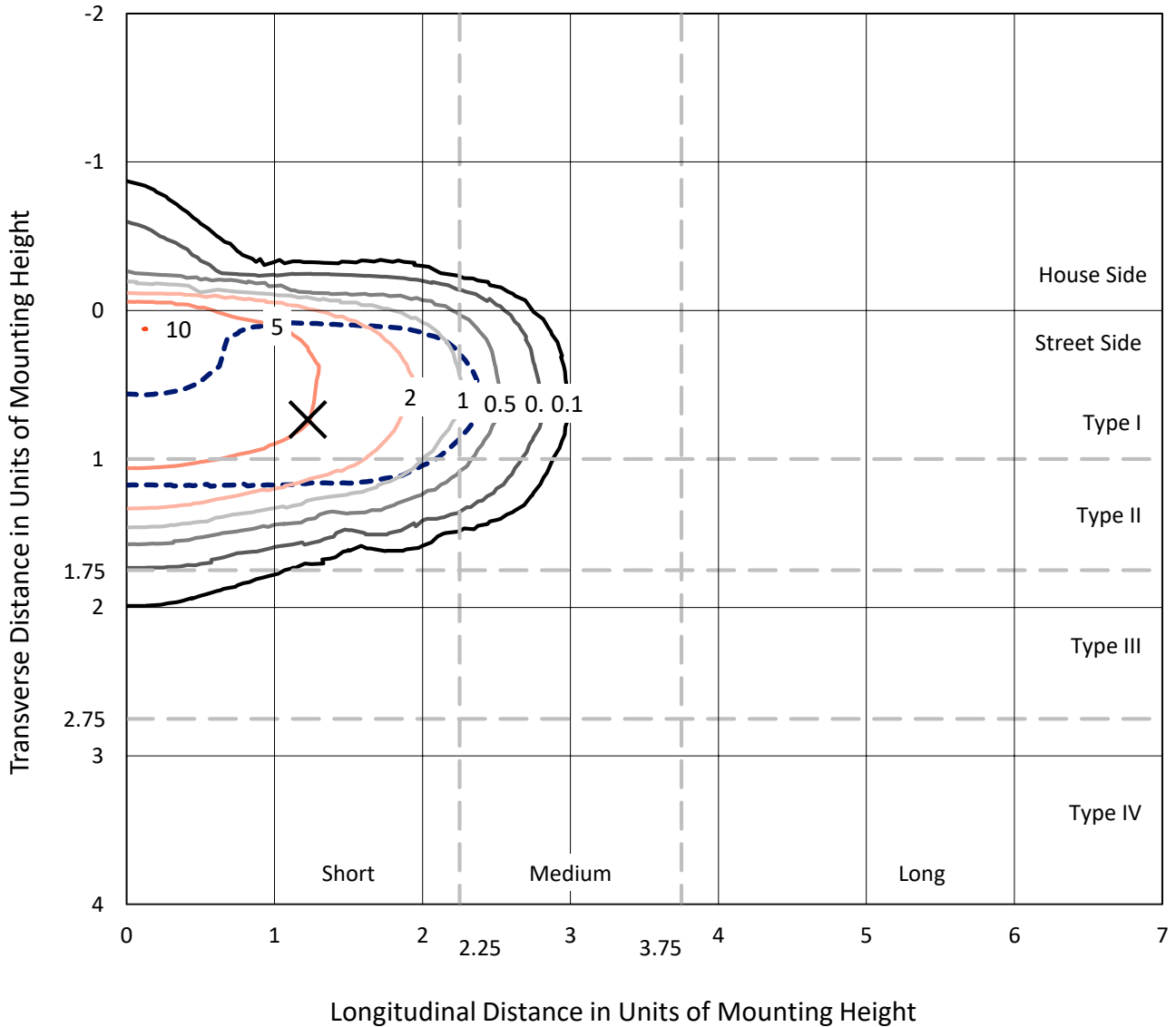


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### Iso-Footcandle Lines of Horizontal Illumination

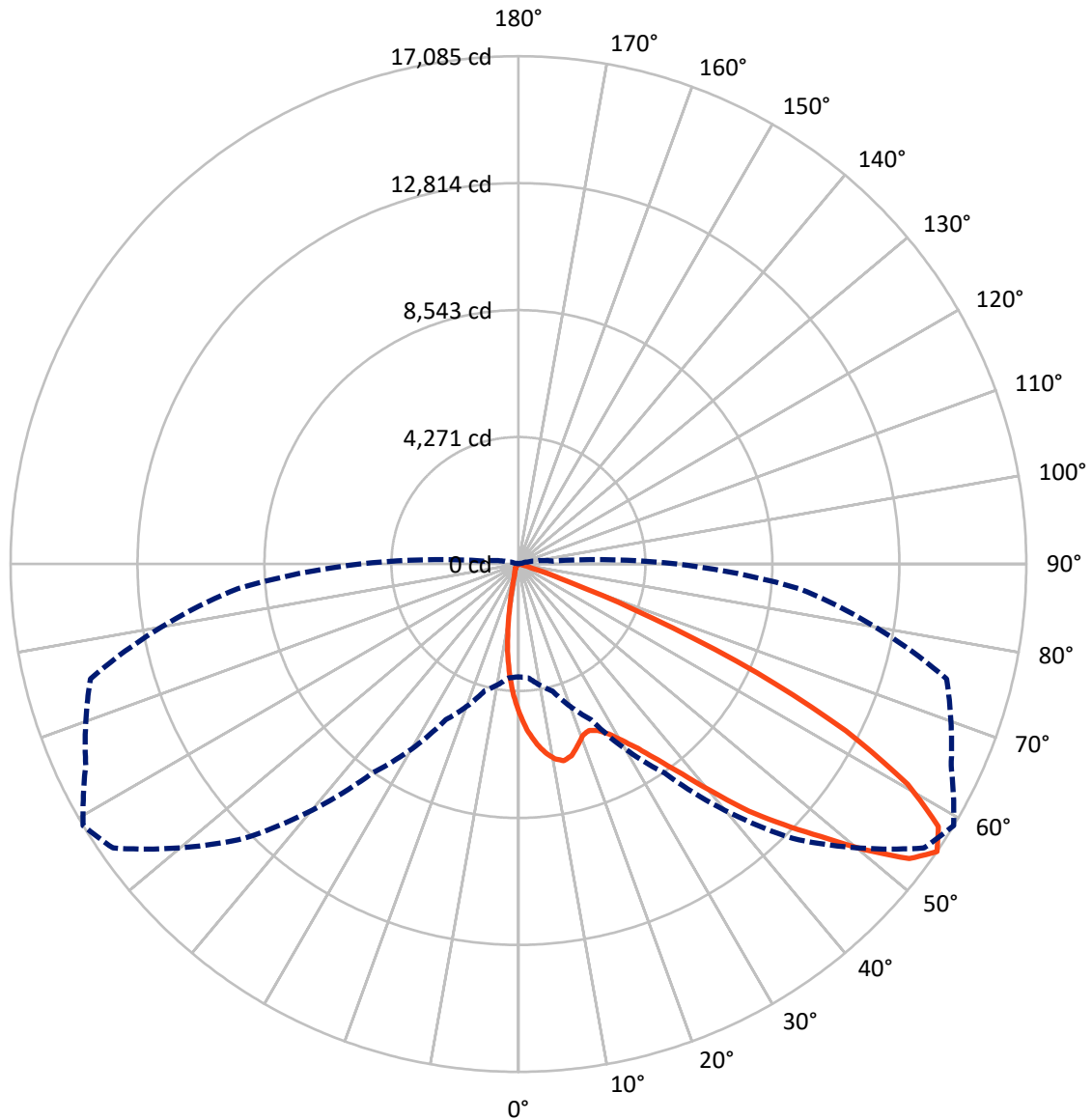
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10 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
<b>House Side</b>	Lumens	998.4	0.0	998.4
	% Fixture	5.6	0.0	5.6
<b>Street Side</b>	Lumens	16876.1	0.0	16876.1
	% Fixture	94.4	0.0	94.4
<b>Total</b>	Lumens	17874.5	0.0	17874.5
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	421.4	2.4
10°-20°	1009.1	5.6
20°-30°	1717.1	9.6
30°-40°	2952.9	16.5
40°-50°	4559.0	25.5
50°-60°	4583.3	25.6
60°-70°	2350.3	13.1
70°-80°	254.7	1.4
80°-90°	26.6	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°	17874.5	100.0
0°-180°	17874.5	100.0

**Coefficient of Utilization**



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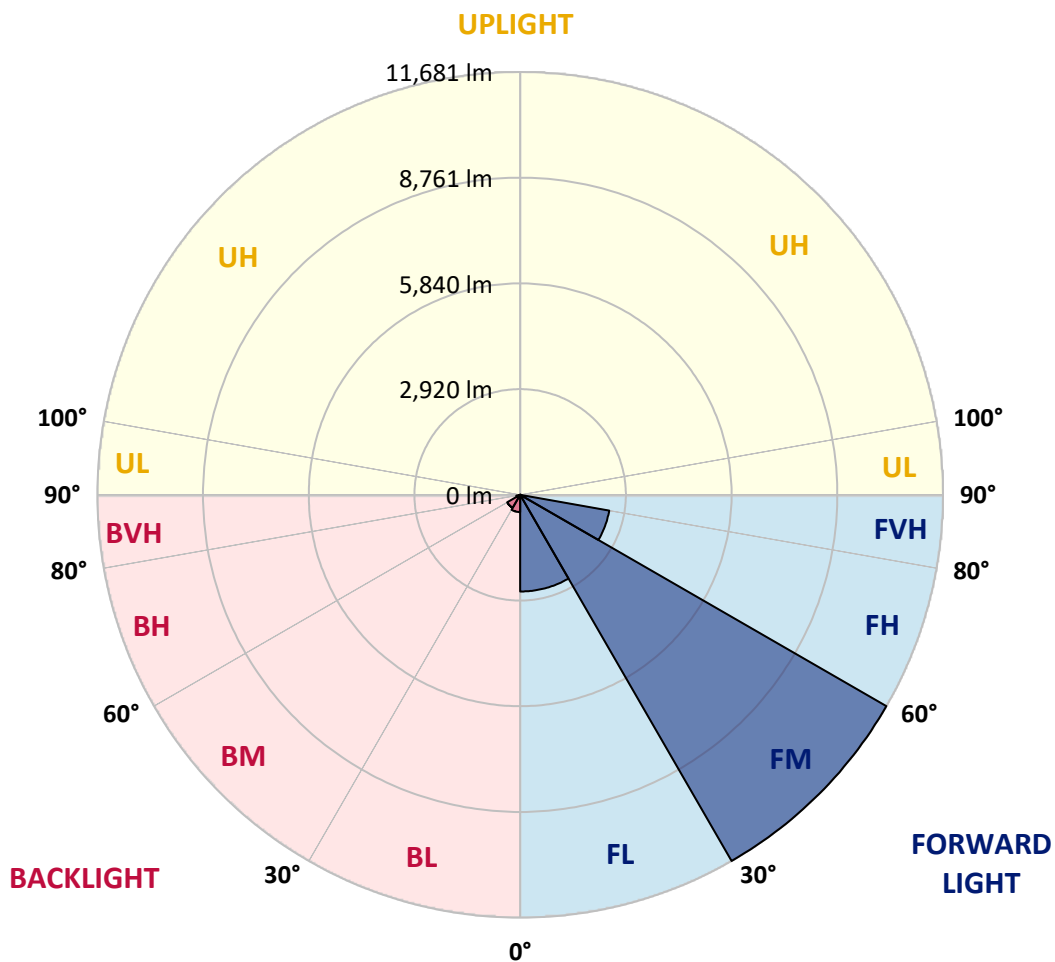
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2671.0	14.9			
FM (30°-60°)	11680.9	65.3			
FH (60°-80°)	2498.1	14.0			G2/5000
FVH (80°-90°)	26.1	0.1			G1/100
BL (0°-30°)	476.5	2.7	B1/500		
BM (30°-60°)	414.3	2.3	B1/1000		
BH (60°-80°)	107.0	0.6	B0/110		G0/110
BVH (80°-90°)	0.5	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°	59°	65°	75°	85°
0°	5031.6	5031.6	5031.6	5031.6	5031.6	5031.6	5031.6	5031.6	5031.6	5031.6	5031.6
2.5°	5953.5	5890.2	5871.3	5858.6	5800.6	5727.8	5628.6	5582.2	5487.3	5334.3	5146.6
5°	6498.9	6487.3	6445.1	6421.9	6359.7	6256.3	6098.0	6022.1	5871.3	5613.9	5277.4
7.5°	6260.5	6333.3	6391.3	6488.3	6610.7	6606.5	6473.6	6394.5	6225.7	5886.0	5422.9
10°	5339.6	5398.7	5493.6	5714.1	6163.4	6560.1	6716.2	6659.2	6524.2	6136.0	5563.2
12.5°	5159.2	5152.9	5169.8	5234.1	5469.4	6034.8	6675.0	6790.0	6762.6	6364.9	5696.2
15°	5255.2	5247.8	5245.7	5267.9	5324.8	5563.2	6366.0	6696.1	6908.2	6576.9	5809.0
17.5°	5524.2	5492.6	5475.7	5457.8	5440.9	5500.0	5994.7	6433.5	6930.3	6762.6	5902.9
20°	5985.2	5932.4	5870.2	5768.9	5674.0	5644.5	5838.6	6163.4	6851.2	6903.9	5964.1
22.5°	6564.3	6496.8	6389.2	6204.6	6011.6	5899.7	5915.6	6078.0	6733.1	7058.0	5992.6
25°	7215.1	7128.6	6985.2	6728.8	6445.1	6246.8	6143.4	6200.4	6679.3	7238.3	6025.3
27.5°	7912.4	7816.4	7628.6	7279.5	6957.7	6689.8	6478.8	6471.5	6771.0	7474.6	6078.0
30°	8603.3	8588.5	8343.8	7974.6	7548.5	7222.5	6918.7	6879.7	7027.4	7801.6	6182.4
32.5°	9525.2	9414.5	9114.9	8735.2	8243.6	7852.3	7492.6	7401.8	7420.8	8182.4	6343.8
35°	10687.7	10566.4	10144.4	9620.2	9070.6	8608.6	8210.9	8087.5	8041.1	8805.8	6616.0
37.5°	11438.7	11436.6	11171.8	10638.1	10048.4	9538.9	9106.5	8961.9	8868.1	9559.0	7037.9
40°	11458.8	11508.3	11543.1	11537.9	11118.0	10648.6	10264.7	10086.4	9868.1	10565.3	7583.3
42.5°	10843.8	10971.4	11278.4	11799.5	12048.4	11861.7	11537.9	11362.8	11037.9	11642.3	8247.8
45°	10012.6	10101.2	10638.1	11598.0	12552.6	13064.2	12817.4	12504.1	12075.8	12765.7	8843.8
47.5°	9640.2	9656.0	10003.1	11056.9	12590.6	14049.5	14199.2	13689.8	13018.9	13670.8	9310.0
50°	8527.4	8555.8	9034.7	10119.1	12145.5	14514.6	15587.4	15104.3	14047.3	14368.0	9479.9
52.5°	6427.2	6467.2	7074.8	8578.0	10921.8	14316.3	16581.1	16464.0	15173.9	14708.7	9489.4
55°	3792.2	3844.9	4425.1	5774.2	8590.6	13054.7	16654.9	17085.3	16063.2	14910.2	9474.6
57.5°	1771.1	1808.0	2140.3	2974.7	5342.8	10317.4	15543.1	16659.1	16553.7	15016.7	9579.0
60°	940.9	951.5	1031.6	1288.0	2414.5	6542.1	13373.3	15043.1	16106.4	15164.4	9706.7
62.5°	719.4	722.6	718.3	748.9	1014.8	2904.0	10108.6	12367.0	14305.8	15053.7	9565.3
65°	623.4	628.7	599.2	591.8	650.8	1035.9	6005.2	8815.3	11241.5	13559.0	8602.2
67.5°	559.1	561.2	525.3	494.7	505.3	560.1	2369.2	4825.9	7440.9	9938.7	6235.2
70°	514.8	512.7	473.6	425.1	411.4	382.9	753.2	1769.0	3555.9	5040.0	2899.8
72.5°	455.7	456.7	437.8	374.5	341.8	267.9	349.2	515.8	1061.2	1373.4	679.3
75°	404.0	398.7	375.5	335.4	281.6	176.2	173.0	230.0	327.0	324.9	146.6
77.5°	292.2	286.9	294.3	275.3	216.2	113.9	86.5	110.8	132.9	128.7	41.1
80°	214.1	211.0	189.9	228.9	190.9	78.1	53.8	59.1	68.6	58.0	12.7
82.5°	146.6	145.6	134.0	126.6	108.6	47.5	33.8	36.9	44.3	32.7	6.3
85°	23.2	26.4	97.0	77.0	64.3	21.1	23.2	25.3	29.5	17.9	2.1
87.5°	0.0	0.0	45.4	40.1	12.7	8.4	13.7	14.8	14.8	9.5	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°	5031.6	5031.6	5031.6	5031.6	5031.6	5031.6	5031.6	5031.6	5031.6	5031.6	5031.6
2.5°	5050.6	4945.1	4750.0	4548.5	4361.8	4139.2	3986.3	3871.3	3738.4	3702.5	3780.6
5°	5085.4	4886.0	4466.2	4009.5	3580.1	3104.4	2740.5	2452.5	2192.0	2103.4	2183.5
7.5°	5140.3	4843.8	4159.2	3407.1	2660.3	1917.7	1409.3	1074.9	861.8	798.5	832.3
10°	5195.1	4782.7	3803.8	2694.1	1673.0	933.5	607.6	485.2	439.9	430.4	435.7
12.5°	5240.5	4700.4	3370.2	1915.6	894.5	500.0	397.7	377.6	371.3	371.3	373.4
15°	5267.9	4575.9	2856.5	1218.3	514.8	377.6	347.0	340.7	340.7	341.8	343.9
17.5°	5264.7	4417.7	2294.3	737.3	385.0	334.4	316.5	311.2	310.1	312.2	313.3
20°	5225.7	4210.9	1729.9	486.3	335.4	304.8	286.9	277.4	276.4	278.5	280.6
22.5°	5151.9	3955.7	1237.3	374.5	302.7	276.4	254.2	245.8	245.8	247.9	250.0
25°	5062.2	3643.4	846.0	317.5	273.2	245.8	224.7	217.3	219.4	224.7	225.7
27.5°	4950.4	3292.2	574.9	272.1	237.3	215.2	199.4	194.1	199.4	206.7	208.9
30°	4854.4	2926.1	410.3	235.2	201.5	185.7	176.2	176.2	183.5	197.3	200.4
32.5°	4780.5	2571.7	316.5	207.8	175.1	161.4	156.1	161.4	173.0	186.7	189.9
35°	4771.1	2279.5	267.9	185.7	156.1	142.4	140.3	149.8	161.4	171.9	174.0
37.5°	4843.8	2009.5	241.6	167.7	139.2	126.6	124.5	136.1	147.7	160.3	163.5
40°	4982.0	1797.5	222.6	150.8	125.5	111.8	107.6	116.0	131.9	148.7	153.0
42.5°	5161.3	1622.3	201.5	134.0	111.8	92.8	87.6	97.0	113.9	131.9	137.1
45°	5332.2	1471.5	178.3	115.0	93.9	71.7	69.6	82.3	90.7	108.6	112.9
47.5°	5426.1	1338.6	158.2	93.9	72.8	58.0	58.0	61.2	69.6	90.7	94.9
50°	5394.5	1232.1	137.1	69.6	50.6	44.3	44.3	43.2	55.9	72.8	75.9
52.5°	5331.2	1170.9	118.1	53.8	34.8	31.6	28.5	31.6	39.0	46.4	47.5
55°	5321.7	1160.3	99.2	43.2	24.3	21.1	15.8	15.8	15.8	14.8	12.7
57.5°	5395.5	1177.2	83.3	34.8	17.9	13.7	8.4	0.0	0.0	0.0	0.0
60°	5471.5	1195.1	71.7	24.3	12.7	7.4	1.1	0.0	0.0	0.0	0.0
62.5°	5344.9	1155.1	60.1	14.8	9.5	3.2	0.0	0.0	0.0	0.0	0.0
65°	4695.1	983.1	47.5	10.5	6.3	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	3339.6	658.2	31.6	6.3	1.1	0.0	0.0	0.0	0.0	0.0	0.0
70°	1524.2	275.3	20.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	325.9	85.4	13.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	66.5	62.2	5.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	21.1	98.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	12.7	70.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	2.1	10.5	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)