

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: P300744

Luminaire Tested: **GLNA-AF-05-LED-E1-AFL-7027-600-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P300744  
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-7027-600-HSS  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive  
Frontline WITH HOUSESIDE SHIELD OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12663.5 lumens  
Efficiency: N/A  
Efficacy: 78.2 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 - G1  
  
Input Watts (W): 162  
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

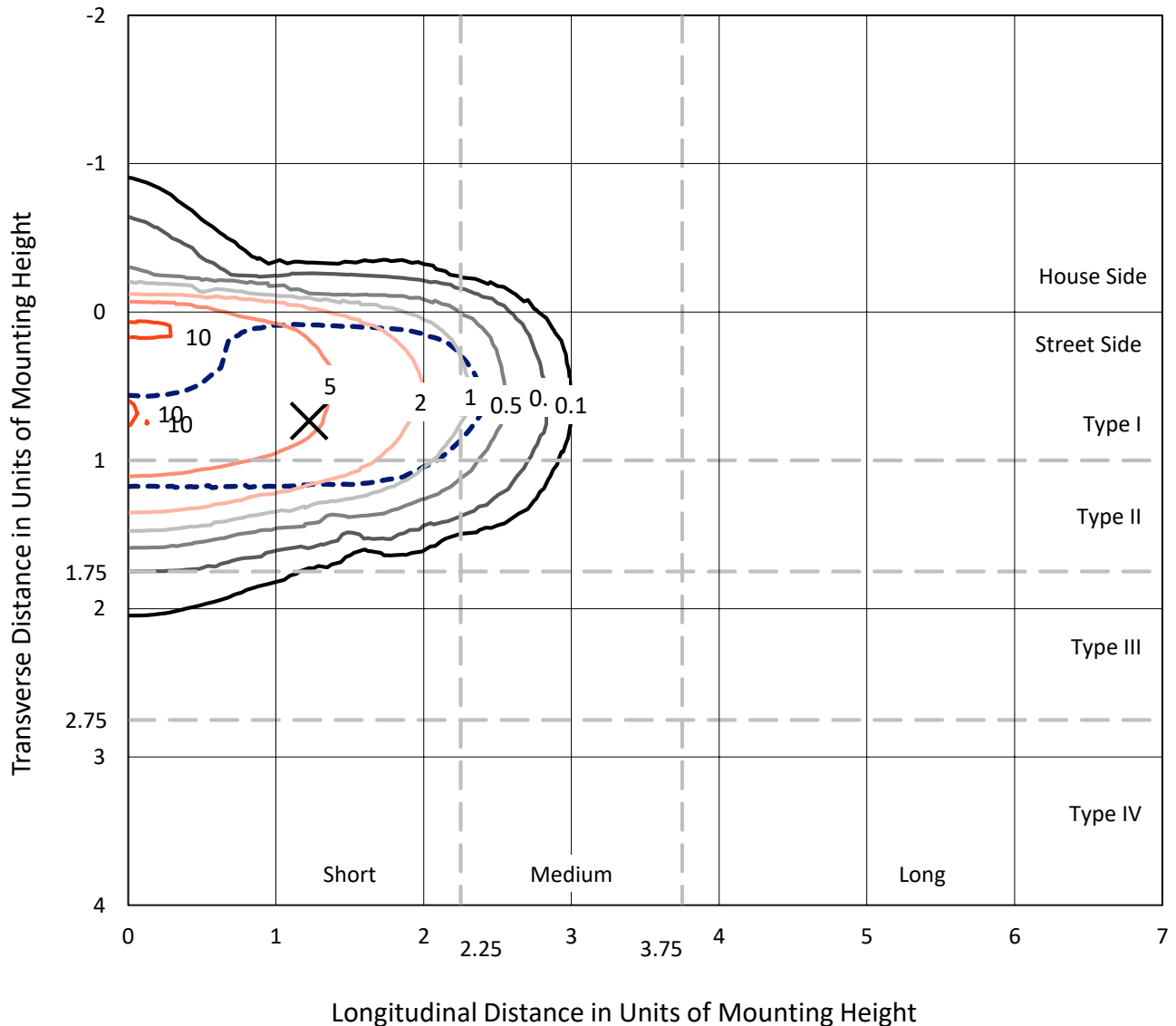


REPORT NUMBER: P300744

CATALOG NUMBER: GLNA-AF-05-LED-E1-AFL-7027-600-HSS

### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

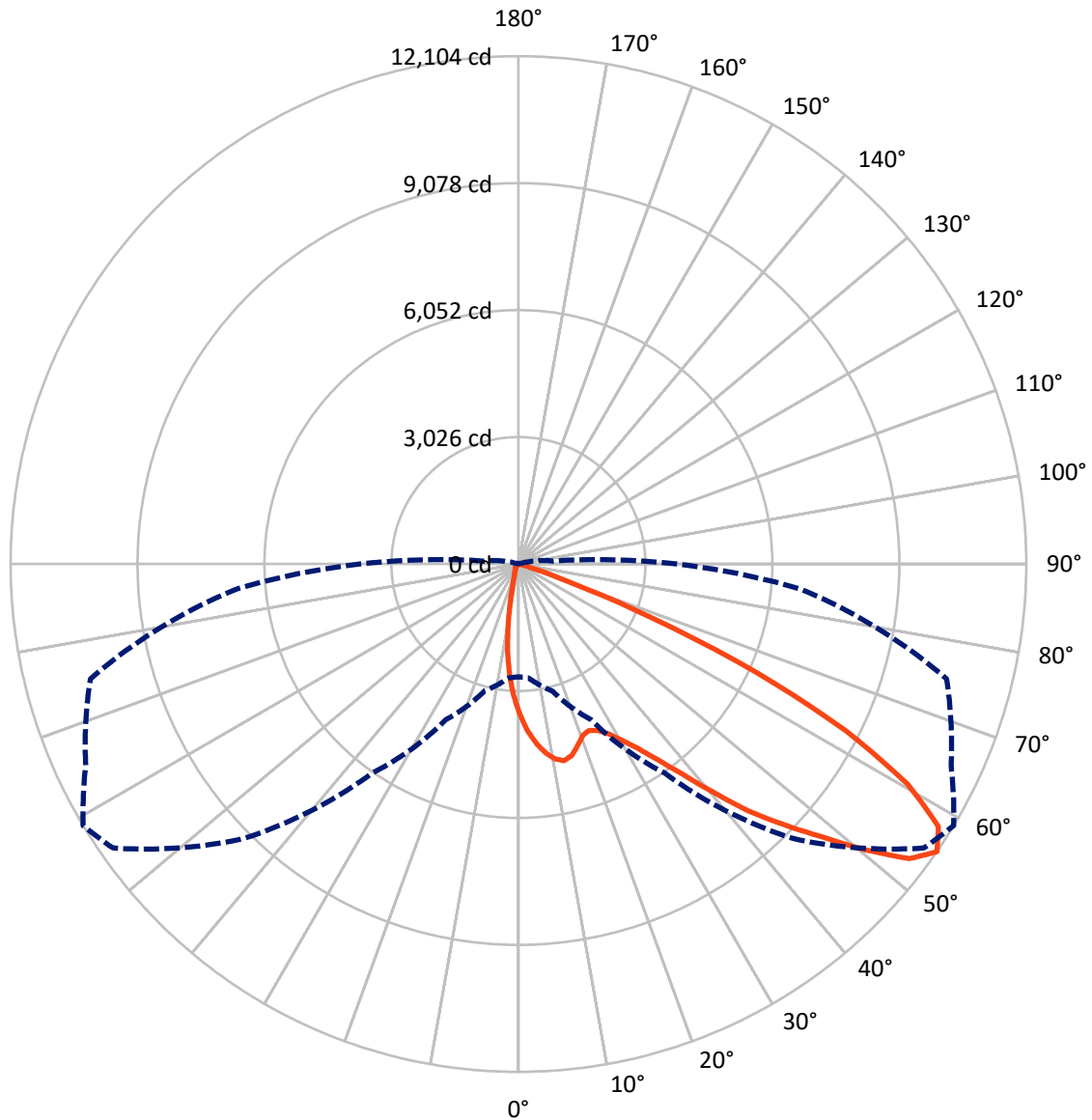


Based on 20 foot mounting height. Maximum calculated value = 11.1 fc  
 Type II - Short - Full Cutoff

REPORT NUMBER: P300744

CATALOG NUMBER: GLNA-AF-05-LED-E1-AFL-7027-600-HSS

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P300744

CATALOG NUMBER: GLNA-AF-05-LED-E1-AFL-7027-600-HSS

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	707.3	0.0	707.3
	% Fixture	5.6	0.0	5.6
<b>Street Side</b>	Lumens	11956.2	0.0	11956.2
	% Fixture	94.4	0.0	94.4
<b>Total</b>	Lumens	12663.5	0.0	12663.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	298.6	2.4
10°-20°	714.9	5.6
20°-30°	1216.5	9.6
30°-40°	2092.1	16.5
40°-50°	3229.9	25.5
50°-60°	3247.1	25.6
60°-70°	1665.1	13.1
70°-80°	180.5	1.4
80°-90°	18.9	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°	12663.5	100.0
0°-180°	12663.5	100.0



REPORT NUMBER: P300744

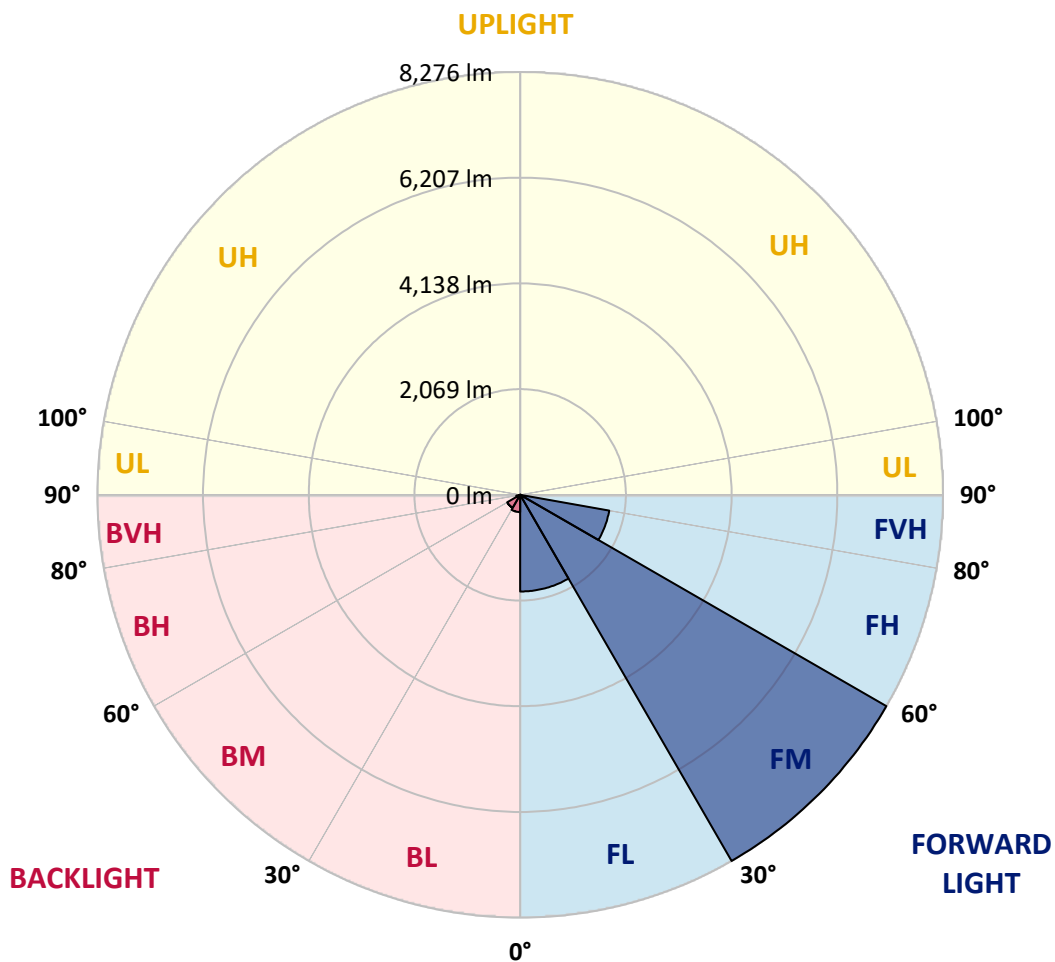
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1892.3	14.9			
FM	(30°-60°)	8275.6	65.3			
FH	(60°-80°)	1769.8	14.0			G1/1800
FVH	(80°-90°)	18.5	0.1			G1/100
BL	(0°-30°)	337.6	2.7	B1/500		
BM	(30°-60°)	293.6	2.3	B1/1000		
BH	(60°-80°)	75.8	0.6	B0/110		G0/110
BVH	(80°-90°)	0.4	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-G1**

Type II Short





REPORT NUMBER: P300744

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	3564.7	3564.7	3564.7	3564.7	3564.7	3564.7	3564.7	3564.7	3564.7	3564.7	3564.7
2.5°	4217.9	4173.1	4159.6	4150.6	4109.5	4058.0	3987.7	3954.8	3887.6	3779.2	3646.2
5°	4604.3	4596.0	4566.2	4549.7	4505.6	4432.4	4320.3	4266.5	4159.6	3977.3	3738.9
7.5°	4435.4	4486.9	4528.0	4596.8	4683.5	4680.5	4586.3	4530.3	4410.7	4170.1	3842.0
10°	3783.0	3824.8	3892.1	4048.3	4366.6	4647.6	4758.2	4717.9	4622.2	4347.2	3941.4
12.5°	3655.2	3650.7	3662.6	3708.2	3874.9	4275.4	4729.1	4810.5	4791.1	4509.4	4035.6
15°	3723.2	3717.9	3716.4	3732.1	3772.5	3941.4	4510.1	4744.0	4894.2	4659.6	4115.5
17.5°	3913.7	3891.3	3879.4	3866.7	3854.7	3896.6	4247.0	4557.9	4909.9	4791.1	4182.0
20°	4240.3	4203.0	4158.9	4087.1	4019.9	3998.9	4136.4	4366.6	4853.9	4891.2	4225.4
22.5°	4650.6	4602.8	4526.5	4395.8	4259.0	4179.8	4191.0	4306.1	4770.2	5000.4	4245.6
25°	5111.7	5050.4	4948.8	4767.2	4566.2	4425.7	4352.4	4392.8	4732.1	5128.1	4268.7
27.5°	5605.7	5537.7	5404.7	5157.3	4929.4	4739.5	4590.1	4584.8	4797.1	5295.5	4306.1
30°	6095.2	6084.7	5911.3	5649.8	5347.9	5116.9	4901.7	4874.1	4978.7	5527.2	4380.1
32.5°	6748.3	6669.9	6457.6	6188.6	5840.3	5563.1	5308.2	5244.0	5257.4	5797.0	4494.4
35°	7571.9	7486.0	7187.0	6815.6	6426.2	6098.9	5817.2	5729.7	5696.9	6238.7	4687.2
37.5°	8104.0	8102.5	7914.9	7536.8	7119.0	6758.1	6451.7	6349.3	6282.8	6772.3	4986.2
40°	8118.2	8153.3	8178.0	8174.2	7876.8	7544.2	7272.2	7145.9	6991.2	7485.2	5372.5
42.5°	7682.5	7772.9	7990.4	8359.6	8535.9	8403.7	8174.2	8050.2	7820.0	8248.2	5843.3
45°	7093.6	7156.4	7536.8	8216.8	8893.2	9255.6	9080.7	8858.8	8555.4	9044.1	6265.6
47.5°	6829.8	6841.0	7086.9	7833.5	8920.1	9953.6	10059.7	9698.8	9223.5	9685.3	6595.9
50°	6041.4	6061.6	6400.8	7169.1	8604.7	10283.2	11043.2	10700.9	9952.1	10179.3	6716.2
52.5°	4553.5	4581.8	5012.3	6077.2	7737.8	10142.7	11747.2	11664.2	10750.3	10420.7	6722.9
55°	2686.6	2724.0	3135.0	4090.9	6086.2	9248.9	11799.5	12104.4	11380.3	10563.4	6712.5
57.5°	1254.8	1280.9	1516.3	2107.5	3785.2	7309.6	11011.8	11802.5	11727.8	10638.9	6786.5
60°	666.6	674.1	730.9	912.5	1710.6	4634.9	9474.6	10657.6	11410.9	10743.5	6876.9
62.5°	509.7	511.9	508.9	530.6	718.9	2057.4	7161.6	8761.6	10135.2	10665.1	6776.7
65°	441.7	445.4	424.5	419.2	461.1	733.9	4254.5	6245.4	7964.2	9606.1	6094.4
67.5°	396.1	397.6	372.2	350.5	358.0	396.8	1678.5	3419.0	5271.6	7041.3	4417.4
70°	364.7	363.2	335.5	301.2	291.5	271.3	533.6	1253.3	2519.2	3570.7	2054.4
72.5°	322.8	323.6	310.1	265.3	242.1	189.8	247.4	365.4	751.8	973.0	481.3
75°	286.2	282.5	266.0	237.6	199.5	124.8	122.6	162.9	231.7	230.2	103.9
77.5°	207.0	203.3	208.5	195.1	153.2	80.7	61.3	78.5	94.2	91.2	29.1
80°	151.7	149.5	134.5	162.2	135.3	55.3	38.1	41.9	48.6	41.1	9.0
82.5°	103.9	103.1	94.9	89.7	77.0	33.6	23.9	26.2	31.4	23.2	4.5
85°	16.4	18.7	68.8	54.6	45.6	14.9	16.4	17.9	20.9	12.7	1.5
87.5°	0.0	0.0	32.1	28.4	9.0	6.0	9.7	10.5	10.5	6.7	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



REPORT NUMBER: P300744

CATALOG NUMBER: GLNA-AF-05-LED-E1-AFL-7027-600-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3564.7	3564.7	3564.7	3564.7	3564.7	3564.7	3564.7	3564.7	3564.7	3564.7	3564.7
2.5°	3578.2	3503.5	3365.2	3222.5	3090.2	2932.5	2824.1	2742.7	2648.5	2623.1	2678.4
5°	3602.9	3461.6	3164.2	2840.6	2536.4	2199.4	1941.6	1737.5	1552.9	1490.2	1547.0
7.5°	3641.7	3431.7	2946.7	2413.9	1884.8	1358.6	998.4	761.5	610.6	565.7	589.6
10°	3680.6	3388.4	2694.9	1908.7	1185.3	661.4	430.5	343.8	311.6	304.9	308.6
12.5°	3712.7	3330.1	2387.7	1357.1	633.7	354.2	281.7	267.5	263.1	263.1	264.6
15°	3732.1	3241.9	2023.8	863.2	364.7	267.5	245.9	241.4	241.4	242.1	243.6
17.5°	3729.9	3129.8	1625.4	522.4	272.8	236.9	224.2	220.5	219.7	221.2	222.0
20°	3702.2	2983.3	1225.6	344.5	237.6	216.0	203.3	196.5	195.8	197.3	198.8
22.5°	3649.9	2802.5	876.6	265.3	214.5	195.8	180.1	174.1	174.1	175.6	177.1
25°	3586.4	2581.3	599.4	224.9	193.6	174.1	159.2	153.9	155.4	159.2	159.9
27.5°	3507.2	2332.4	407.3	192.8	168.1	152.5	141.2	137.5	141.2	146.5	148.0
30°	3439.2	2073.1	290.7	166.7	142.7	131.5	124.8	124.8	130.0	139.7	142.0
32.5°	3386.9	1822.0	224.2	147.2	124.1	114.3	110.6	114.3	122.6	132.3	134.5
35°	3380.2	1615.0	189.8	131.5	110.6	100.9	99.4	106.1	114.3	121.8	123.3
37.5°	3431.7	1423.7	171.1	118.8	98.6	89.7	88.2	96.4	104.6	113.6	115.8
40°	3529.6	1273.4	157.7	106.9	88.9	79.2	76.2	82.2	93.4	105.4	108.4
42.5°	3656.7	1149.4	142.7	94.9	79.2	65.8	62.0	68.8	80.7	93.4	97.2
45°	3777.7	1042.5	126.3	81.5	66.5	50.8	49.3	58.3	64.3	77.0	80.0
47.5°	3844.2	948.4	112.1	66.5	51.6	41.1	41.1	43.3	49.3	64.3	67.3
50°	3821.8	872.9	97.2	49.3	35.9	31.4	31.4	30.6	39.6	51.6	53.8
52.5°	3777.0	829.5	83.7	38.1	24.7	22.4	20.2	22.4	27.7	32.9	33.6
55°	3770.3	822.1	70.2	30.6	17.2	14.9	11.2	11.2	11.2	10.5	9.0
57.5°	3822.6	834.0	59.0	24.7	12.7	9.7	6.0	0.0	0.0	0.0	0.0
60°	3876.4	846.7	50.8	17.2	9.0	5.2	0.7	0.0	0.0	0.0	0.0
62.5°	3786.7	818.3	42.6	10.5	6.7	2.2	0.0	0.0	0.0	0.0	0.0
65°	3326.3	696.5	33.6	7.5	4.5	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	2366.0	466.3	22.4	4.5	0.7	0.0	0.0	0.0	0.0	0.0	0.0
70°	1079.9	195.1	14.2	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	230.9	60.5	9.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	47.1	44.1	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	14.9	69.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	9.0	50.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	1.5	7.5	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)