

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: P300618

Luminaire Tested: **GLNA-AF-04-LED-E1-AFL-7027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P300618  
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-04-LED-E1-AFL-7027-HSS  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 2700K 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: 15514.9 lumens  
Efficiency: N/A  
Efficacy: 69.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B1 - U0 - G2

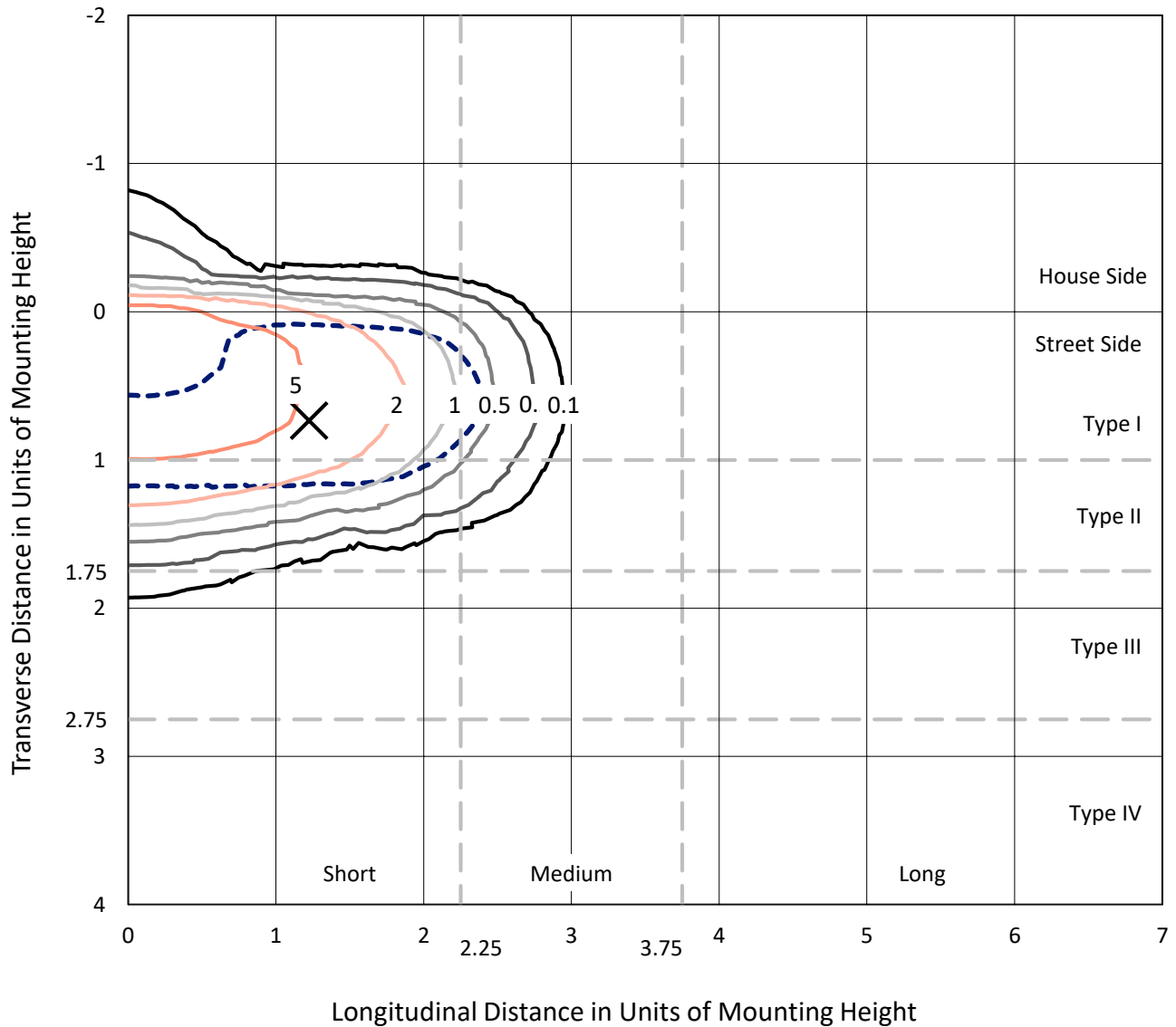
Input Watts (W): 225  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P300618  
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### Iso-Footcandle Lines of Horizontal Illumination

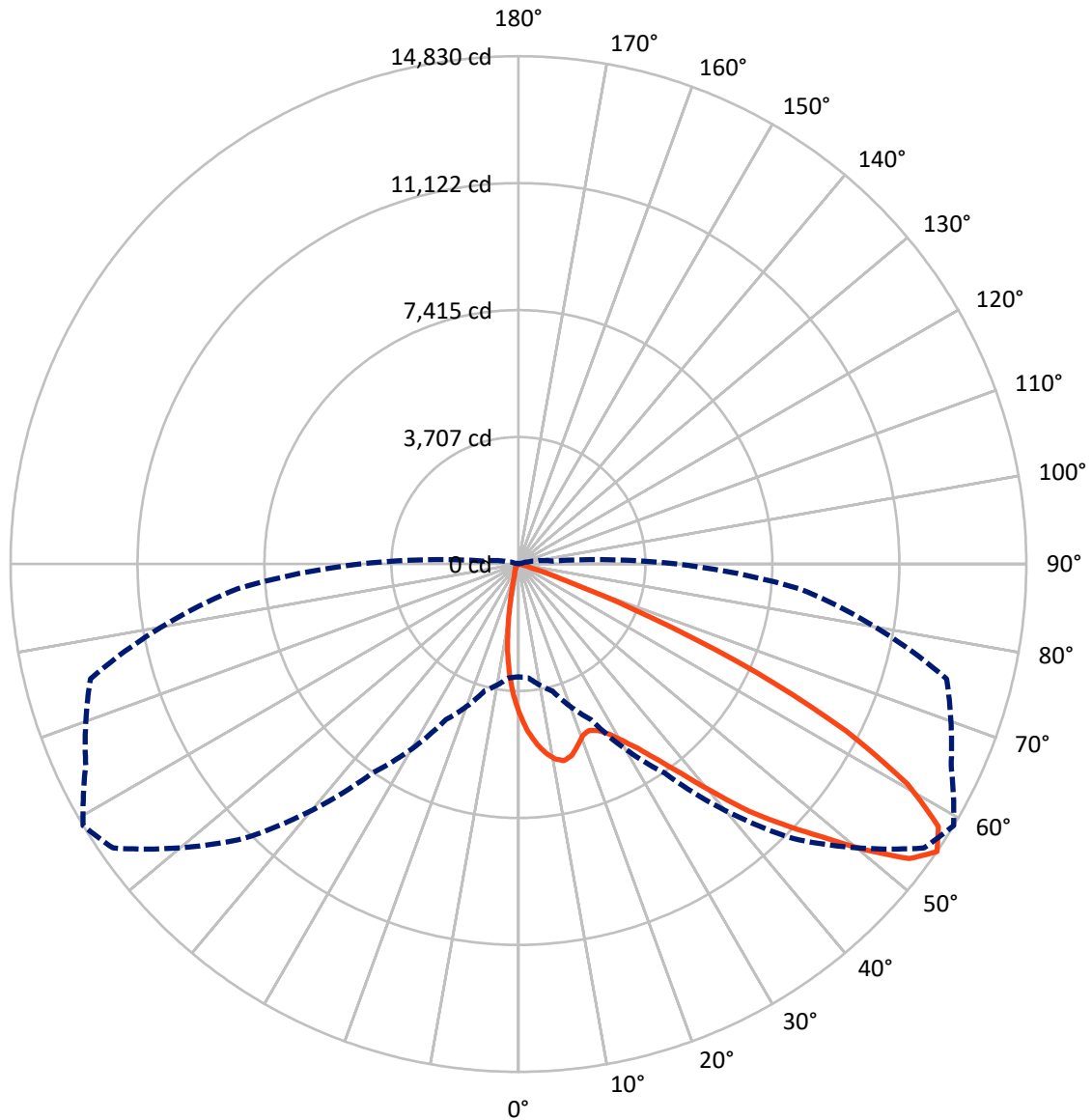
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.7 fc  
 Type II - Short - Full Cutoff

REPORT NUMBER: P300618  
CATALOG NUMBER: GLNA-AF-04-LED-E1-AFL-7027-HSS

### 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	866.6	0.0	866.6
	% Fixture	5.6	0.0	5.6
<b>Street Side</b>	Lumens	14648.3	0.0	14648.3
	% Fixture	94.4	0.0	94.4
<b>Total</b>	Lumens	15514.9	0.0	15514.9
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	365.8	2.4
10°-20°	875.9	5.6
20°-30°	1490.4	9.6
30°-40°	2563.1	16.5
40°-50°	3957.2	25.5
50°-60°	3978.2	25.6
60°-70°	2040.1	13.1
70°-80°	221.1	1.4
80°-90°	23.1	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°	15514.9	100.0
0°-180°	15514.9	100.0

**Coefficient of Utilization**



REPORT NUMBER: P300618

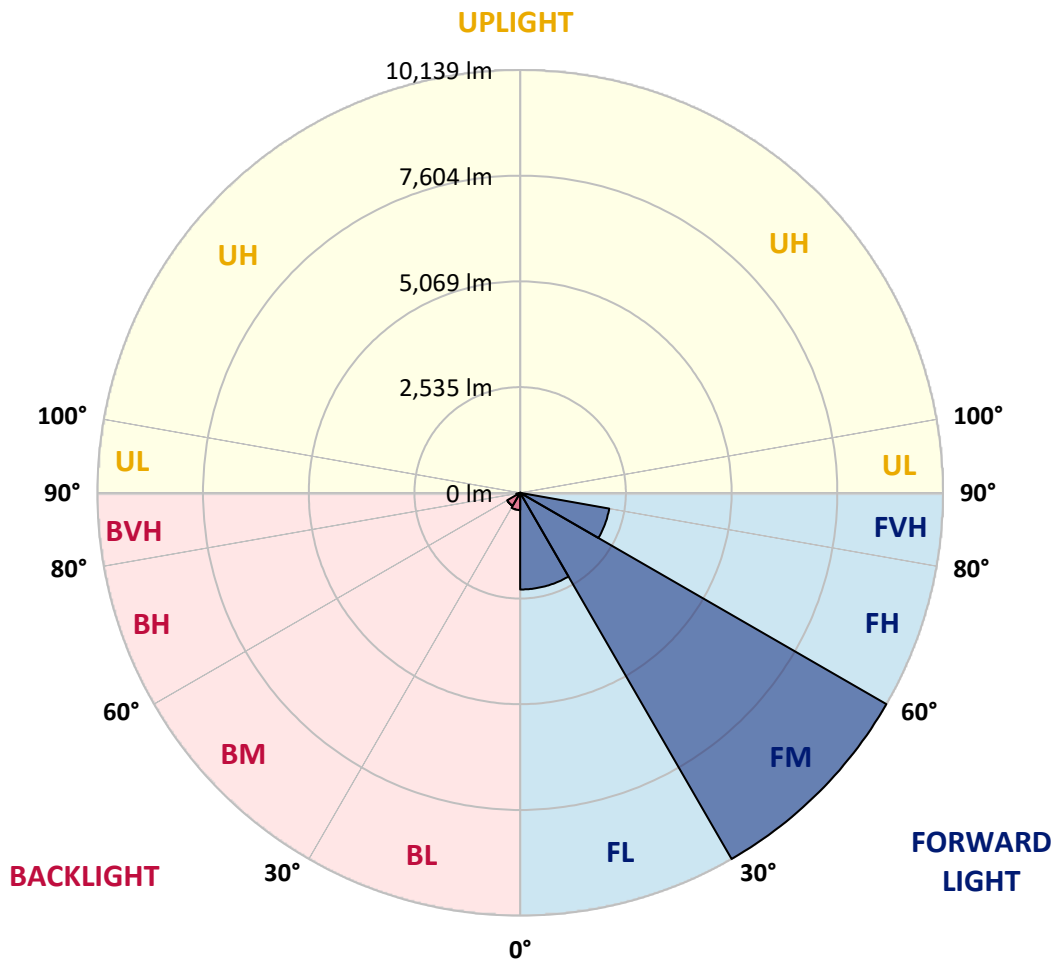
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2318.4	14.9			
FM	(30°-60°)	10138.9	65.3			
FH	(60°-80°)	2168.3	14.0			G2/5000
FVH	(80°-90°)	22.6	0.1			G1/100
BL	(0°-30°)	413.6	2.7	B1/500		
BM	(30°-60°)	359.7	2.3	B1/1000		
BH	(60°-80°)	92.8	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





REPORT NUMBER: P300618

CATALOG NUMBER: GLNA-AF-04-LED-E1-AFL-7027-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	4367.4	4367.4	4367.4	4367.4	4367.4	4367.4	4367.4	4367.4	4367.4	4367.4	4367.4
2.5°	5167.6	5112.7	5096.2	5085.2	5034.8	4971.7	4885.6	4845.3	4762.9	4630.1	4467.2
5°	5641.0	5630.9	5594.3	5574.1	5520.1	5430.4	5293.0	5227.1	5096.2	4872.8	4580.7
7.5°	5434.0	5497.2	5547.6	5631.8	5738.0	5734.4	5619.0	5550.3	5403.8	5109.0	4707.1
10°	4634.7	4686.0	4768.4	4959.8	5349.8	5694.1	5829.6	5780.1	5662.9	5326.0	4828.8
12.5°	4478.2	4472.7	4487.3	4543.2	4747.3	5238.1	5793.9	5893.7	5869.9	5524.7	4944.2
15°	4561.5	4555.1	4553.2	4572.5	4621.9	4828.8	5525.6	5812.2	5996.2	5708.7	5042.2
17.5°	4795.0	4767.5	4752.8	4737.3	4722.6	4773.9	5203.3	5584.2	6015.4	5869.9	5123.7
20°	5195.1	5149.3	5095.3	5007.4	4925.0	4899.3	5067.8	5349.8	5946.8	5992.5	5176.8
22.5°	5697.7	5639.1	5545.7	5385.5	5218.0	5120.9	5134.6	5275.6	5844.2	6126.2	5201.5
25°	6262.6	6187.6	6063.0	5840.6	5594.3	5422.1	5332.4	5381.8	5797.5	6282.8	5229.9
27.5°	6867.9	6784.5	6621.6	6318.5	6039.2	5806.7	5623.6	5617.2	5877.2	6487.9	5275.6
30°	7467.6	7454.7	7242.3	6921.9	6552.0	6269.1	6005.4	5971.5	6099.7	6771.7	5366.3
32.5°	8267.8	8171.7	7911.6	7582.0	7155.3	6815.7	6503.4	6424.7	6441.2	7102.2	5506.4
35°	9276.8	9171.5	8805.2	8350.2	7873.2	7472.1	7127.0	7019.8	6979.6	7643.4	5742.6
37.5°	9928.7	9926.8	9697.0	9233.7	8721.9	8279.7	7904.3	7778.9	7697.4	8297.1	6108.8
40°	9946.1	9989.1	10019.3	10014.7	9650.3	9242.9	8909.6	8754.9	8565.4	9170.6	6582.2
42.5°	9412.3	9523.1	9789.5	10241.8	10457.9	10295.8	10014.7	9862.8	9580.8	10105.4	7159.0
45°	8690.8	8767.7	9233.7	10066.9	10895.5	11339.6	11125.4	10853.4	10481.7	11080.5	7676.3
47.5°	8367.6	8381.3	8682.6	9597.2	10928.5	12194.8	12324.8	11882.5	11300.2	11866.1	8081.0
50°	7401.6	7426.4	7842.0	8783.3	10542.1	12598.5	13529.7	13110.4	12192.9	12471.3	8228.4
52.5°	5578.7	5613.5	6140.9	7445.6	9480.0	12426.4	14392.2	14290.6	13170.8	12767.0	8236.7
55°	3291.6	3337.3	3840.9	5011.9	7456.6	11331.4	14456.3	14829.8	13942.6	12941.9	8223.8
57.5°	1537.3	1569.3	1857.7	2582.0	4637.5	8955.4	13491.2	14459.9	14368.4	13034.4	8314.5
60°	816.7	825.9	895.4	1117.9	2095.8	5678.5	11607.9	13057.3	13980.2	13162.5	8425.3
62.5°	624.4	627.2	623.5	650.1	880.8	2520.6	8774.1	10734.4	12417.3	13066.4	8302.6
65°	541.1	545.7	520.1	513.6	564.9	899.1	5212.5	7651.6	9757.5	11769.0	7466.7
67.5°	485.3	487.1	456.0	429.4	438.6	486.2	2056.4	4188.8	6458.6	8626.7	5412.1
70°	446.8	445.0	411.1	369.0	357.1	332.4	653.7	1535.4	3086.5	4374.7	2517.0
72.5°	395.5	396.5	380.0	325.0	296.7	232.6	303.1	447.7	921.1	1192.1	589.6
75°	350.7	346.1	326.0	291.2	244.5	152.9	150.2	199.6	283.8	282.0	127.3
77.5°	253.6	249.0	255.5	239.0	187.7	98.9	75.1	96.1	115.4	111.7	35.7
80°	185.9	183.1	164.8	198.7	165.7	67.8	46.7	51.3	59.5	50.4	11.0
82.5°	127.3	126.4	116.3	109.9	94.3	41.2	29.3	32.0	38.5	28.4	5.5
85°	20.1	22.9	84.2	66.8	55.9	18.3	20.1	22.0	25.6	15.6	1.8
87.5°	0.0	0.0	39.4	34.8	11.0	7.3	11.9	12.8	12.8	8.2	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: P300618

CATALOG NUMBER: GLNA-AF-04-LED-E1-AFL-7027-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4367.4	4367.4	4367.4	4367.4	4367.4	4367.4	4367.4	4367.4	4367.4	4367.4	4367.4
2.5°	4383.9	4292.3	4122.9	3948.0	3786.0	3592.8	3460.0	3360.2	3244.9	3213.7	3281.5
5°	4414.1	4241.0	3876.6	3480.2	3107.5	2694.6	2378.7	2128.8	1902.6	1825.7	1895.3
7.5°	4461.7	4204.4	3610.2	2957.4	2309.1	1664.5	1223.2	933.0	748.0	693.1	722.4
10°	4509.3	4151.3	3301.6	2338.4	1452.1	810.3	527.4	421.2	381.8	373.6	378.1
12.5°	4548.7	4079.9	2925.3	1662.7	776.4	434.0	345.2	327.8	322.3	322.3	324.1
15°	4572.5	3971.8	2479.4	1057.5	446.8	327.8	301.2	295.7	295.7	296.7	298.5
17.5°	4569.7	3834.5	1991.4	640.0	334.2	290.2	274.7	270.1	269.2	271.0	271.9
20°	4535.8	3655.0	1501.6	422.1	291.2	264.6	249.0	240.8	239.9	241.7	243.5
22.5°	4471.7	3433.5	1074.0	325.0	262.8	239.9	220.7	213.3	213.3	215.2	217.0
25°	4393.9	3162.5	734.3	275.6	237.1	213.3	195.0	188.6	190.4	195.0	195.9
27.5°	4296.9	2857.6	499.0	236.2	206.0	186.8	173.0	168.5	173.0	179.5	181.3
30°	4213.6	2539.9	356.2	204.2	174.9	161.1	152.9	152.9	159.3	171.2	174.0
32.5°	4149.5	2232.2	274.7	180.4	152.0	140.1	135.5	140.1	150.2	162.1	164.8
35°	4141.2	1978.6	232.6	161.1	135.5	123.6	121.8	130.0	140.1	149.2	151.1
37.5°	4204.4	1744.2	209.7	145.6	120.9	109.9	108.0	118.1	128.2	139.2	141.9
40°	4324.3	1560.2	193.2	130.9	109.0	97.1	93.4	100.7	114.4	129.1	132.8
42.5°	4480.0	1408.2	174.9	116.3	97.1	80.6	76.0	84.2	98.9	114.4	119.0
45°	4628.3	1277.3	154.7	99.8	81.5	62.3	60.4	71.4	78.7	94.3	98.0
47.5°	4709.8	1161.9	137.3	81.5	63.2	50.4	50.4	53.1	60.4	78.7	82.4
50°	4682.3	1069.4	119.0	60.4	43.9	38.5	38.5	37.5	48.5	63.2	65.9
52.5°	4627.4	1016.3	102.5	46.7	30.2	27.5	24.7	27.5	33.9	40.3	41.2
55°	4619.2	1007.2	86.1	37.5	21.1	18.3	13.7	13.7	13.7	12.8	11.0
57.5°	4683.3	1021.8	72.3	30.2	15.6	11.9	7.3	0.0	0.0	0.0	0.0
60°	4749.2	1037.4	62.3	21.1	11.0	6.4	0.9	0.0	0.0	0.0	0.0
62.5°	4639.3	1002.6	52.2	12.8	8.2	2.7	0.0	0.0	0.0	0.0	0.0
65°	4075.3	853.3	41.2	9.2	5.5	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	2898.8	571.3	27.5	5.5	0.9	0.0	0.0	0.0	0.0	0.0	0.0
70°	1323.0	239.0	17.4	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	282.9	74.2	11.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	57.7	54.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	18.3	85.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	11.0	61.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	1.8	9.2	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)