

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: P299660

Luminaire Tested: **GLNA-AF-05-LED-E1-SL2-7030-800-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299660  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24287)  
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-SL2-7030-800-HSS  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 3000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II  
w/Spill Control WITH HOUSESIDE SHEILD OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 17491.7 lumens  
Efficiency: N/A  
Efficacy: 83.3 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type II - Short - Semi-Cutoff  
BUG Rating: B2 - U0 - G3  
  
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

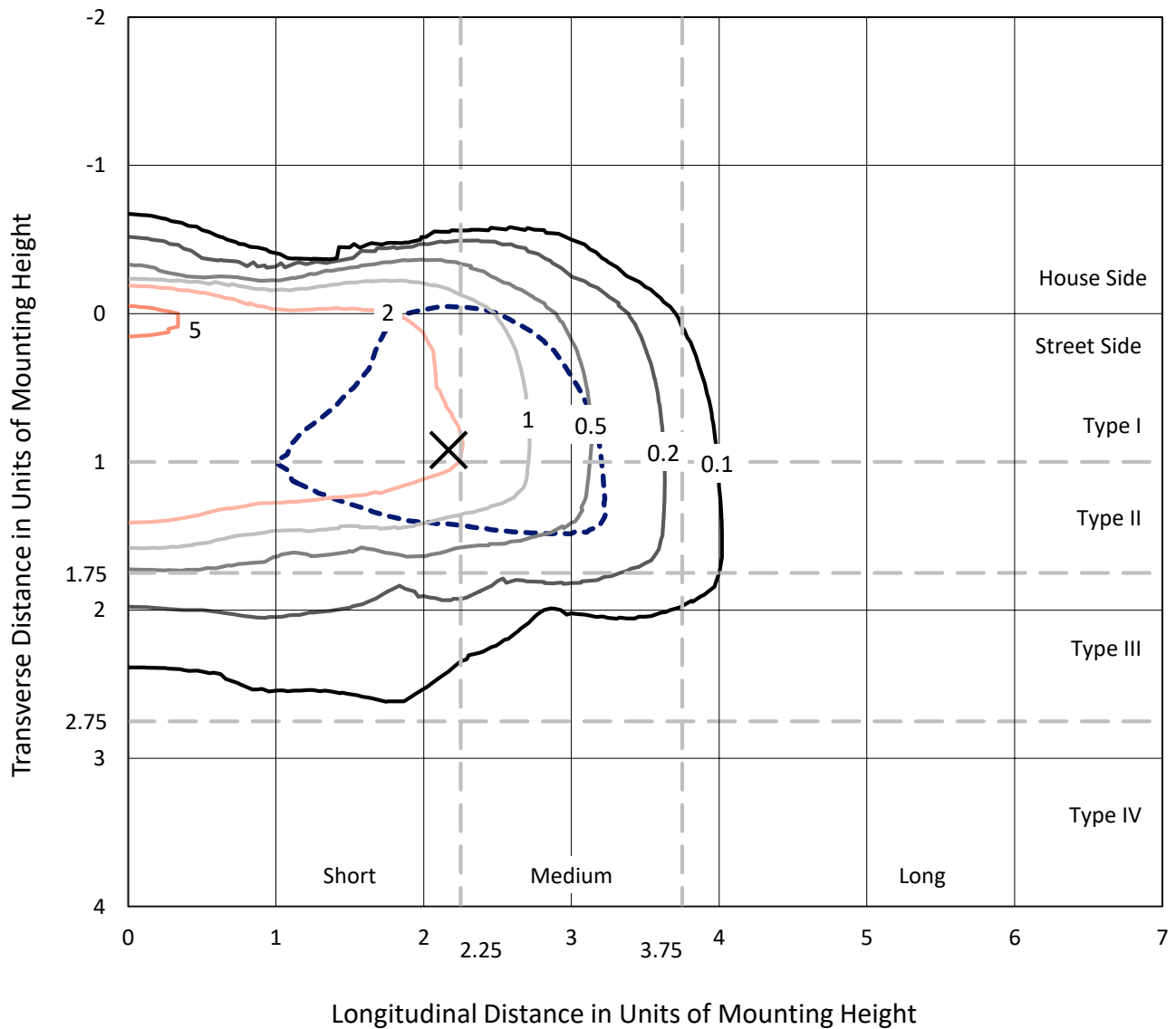


REPORT NUMBER: P299660

CATALOG NUMBER: GLNA-AF-05-LED-E1-SL2-7030-800-HSS

### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

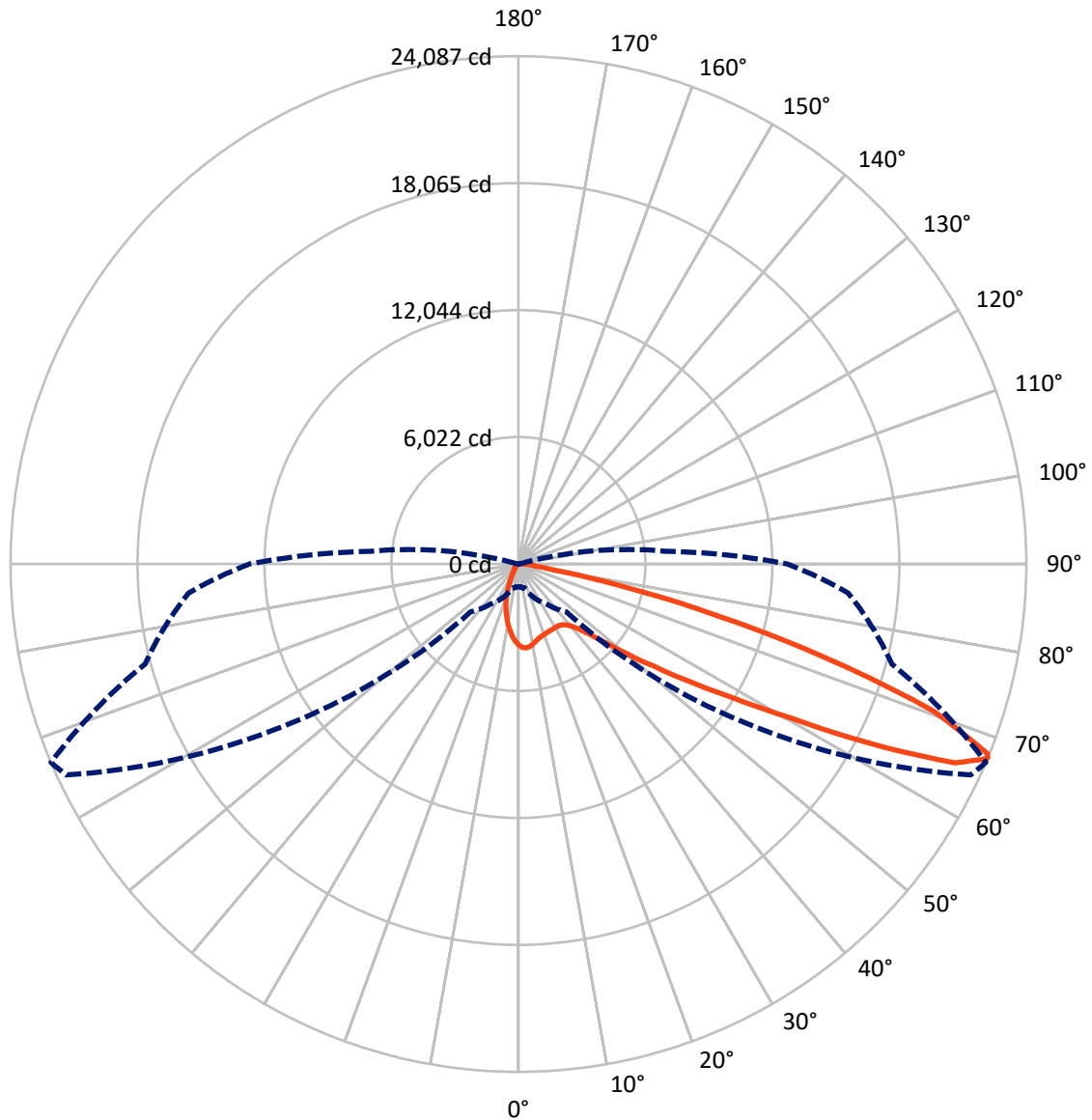


Based on 25 foot mounting height. Maximum calculated value = 6.2 fc  
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P299660

CATALOG NUMBER: GLNA-AF-05-LED-E1-SL2-7030-800-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral      - - - Horizontal Cone Through 67-Deg Vertical

REPORT NUMBER: P299660

CATALOG NUMBER: GLNA-AF-05-LED-E1-SL2-7030-800-HSS

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1816.2	0.0	1816.2
	% Fixture	10.4	0.0	10.4
<b>Street Side</b>	Lumens	15675.5	0.0	15675.5
	% Fixture	89.6	0.0	89.6
<b>Total</b>	Lumens	17491.7	0.0	17491.7
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	313.9	1.8
10°-20°	668.1	3.8
20°-30°	971.3	5.6
30°-40°	1515.3	8.7
40°-50°	2684.2	15.3
50°-60°	4247.5	24.3
60°-70°	4865.0	27.8
70°-80°	2018.0	11.5
80°-90°	208.4	1.2
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°	17491.7	100.0
0°-180°	17491.7	100.0

**Coefficient of Utilization**



REPORT NUMBER: P299660

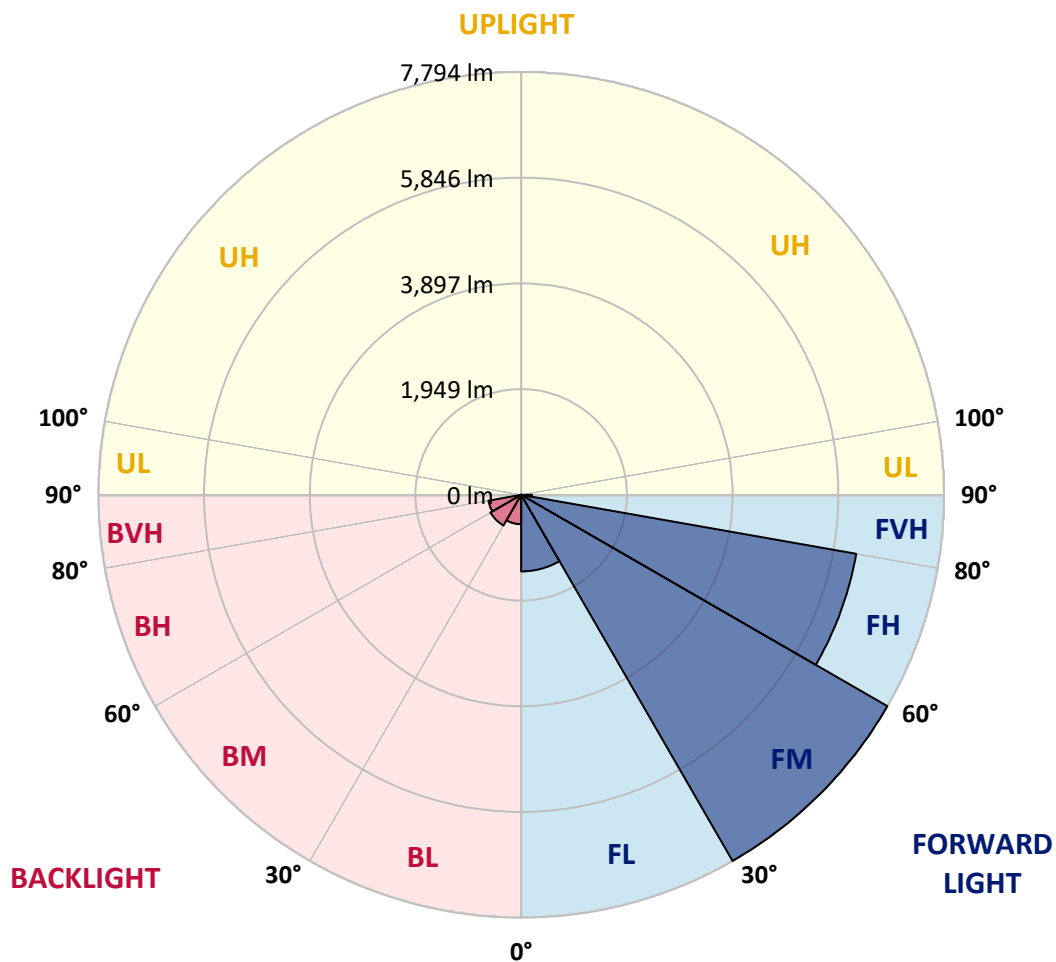
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1411.3	8.1			
FM (30°-60°)	7794.3	44.6			
FH (60°-80°)	6270.8	35.9			G3/7500
FVH (80°-90°)	199.1	1.1			G2/225
BL (0°-30°)	541.9	3.1	B2/1000		
BM (30°-60°)	652.7	3.7	B1/1000		
BH (60°-80°)	612.1	3.5	B2/1000		G2/1000
BVH (80°-90°)	9.4	0.1			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G3**

Type II Short





REPORT NUMBER: P299660

CATALOG NUMBER: GLNA-AF-05-LED-E1-SL2-7030-800-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	3857.6	3857.6	3857.6	3857.6	3857.6	3857.6	3857.6	3857.6	3857.6	3857.6	3857.6
2.5°	3988.2	3996.3	3995.3	4001.4	4015.7	4016.7	4002.4	3974.9	3968.8	3933.1	3870.8
5°	3678.0	3701.5	3715.8	3773.9	3839.2	3917.8	3976.9	3998.4	3995.3	3969.8	3875.9
7.5°	3324.0	3347.4	3363.8	3432.1	3518.8	3653.5	3807.6	3934.1	3945.3	3972.9	3871.8
10°	3088.3	3092.4	3114.8	3180.1	3270.9	3408.7	3592.3	3813.7	3847.4	3948.4	3861.6
12.5°	2894.4	2897.5	2927.1	2997.5	3094.4	3233.2	3426.0	3682.1	3734.1	3917.8	3859.6
15°	2756.7	2767.9	2794.5	2867.9	2971.0	3108.7	3306.6	3585.2	3647.4	3906.5	3878.0
17.5°	2710.8	2723.0	2731.2	2784.3	2878.1	3012.8	3215.8	3521.9	3592.3	3912.7	3913.7
20°	2758.8	2767.9	2749.6	2762.8	2821.0	2941.4	3139.3	3467.8	3551.5	3919.8	3959.6
22.5°	2937.3	2941.4	2891.4	2833.2	2823.0	2889.3	3079.1	3425.0	3514.8	3939.2	4013.7
25°	3243.4	3236.2	3154.6	3029.1	2910.8	2880.2	3043.4	3398.5	3496.4	3959.6	4069.8
27.5°	3612.7	3622.9	3510.7	3328.1	3102.6	2941.4	3038.3	3387.2	3488.2	3973.9	4118.7
30°	4061.6	4075.9	3947.3	3717.8	3394.4	3092.4	3085.2	3385.2	3483.1	3964.7	4122.8
32.5°	4519.7	4537.1	4436.0	4199.3	3784.1	3345.4	3191.3	3407.6	3493.3	3933.1	4099.4
35°	4999.2	5023.7	4956.4	4753.3	4312.6	3710.6	3378.0	3476.0	3541.3	3930.0	4075.9
37.5°	5661.4	5683.8	5557.3	5342.0	4952.3	4200.4	3678.0	3604.5	3654.5	3979.0	4082.0
40°	6650.0	6646.9	6320.4	5990.9	5655.2	4822.7	4099.4	3837.2	3862.7	4126.9	4157.5
42.5°	7727.4	7722.3	7239.7	6738.8	6435.7	5588.9	4653.4	4239.1	4221.8	4399.3	4353.4
45°	8557.9	8556.8	8163.0	7598.8	7375.4	6468.4	5369.6	4798.2	4771.7	4842.1	4714.6
47.5°	8911.9	8918.0	8720.1	8323.2	8417.1	7658.0	6272.5	5608.3	5568.5	5540.0	5346.1
50°	8636.4	8648.7	8665.0	8587.4	9181.2	9256.7	7483.5	6750.0	6730.6	6603.1	6300.0
52.5°	7736.6	7798.8	7990.6	8236.5	9446.5	10791.2	9382.2	8168.1	8064.1	7928.4	7594.7
55°	6220.5	6288.8	6653.1	7249.9	9051.7	11799.2	12043.0	9996.4	9823.0	9417.9	8936.4
57.5°	4116.7	4222.8	4751.3	5510.4	7904.9	11961.4	14697.7	12533.8	11929.8	10820.8	10278.0
60°	2268.0	2370.0	2943.4	3631.1	5709.3	11159.5	16483.2	15837.3	14770.2	12388.9	11907.3
62.5°	1396.7	1451.8	1875.2	2514.9	3424.0	8807.8	16852.5	19988.7	18753.2	14408.0	13875.4
65°	1112.1	1135.5	1342.6	2055.8	2454.7	5239.0	15659.8	23153.6	22741.4	16852.5	15637.4
67°	1079.4	1088.6	1186.6	1765.0	2313.9	3211.7	13119.4	23668.8	24087.1	18331.9	15692.5
67.5°	1086.6	1096.8	1189.6	1684.4	2309.8	2951.6	12244.0	23465.8	23994.2	18449.2	15448.6
70°	1047.8	1079.4	1362.0	1683.4	2196.6	2452.7	7332.5	20331.5	20881.5	17142.2	13108.2
72.5°	371.4	373.4	588.7	1362.0	2388.4	2479.2	3682.1	14904.8	15311.9	13113.3	9450.6
75°	220.4	187.7	195.9	387.7	2282.3	2407.8	2124.2	9524.0	9676.1	7514.1	4786.0
77.5°	152.0	132.6	136.7	171.4	869.3	2374.1	1687.5	4966.6	4804.4	2635.3	1019.2
80°	86.7	76.5	81.6	150.0	316.3	2215.0	1591.6	2014.0	1717.1	446.9	281.6
82.5°	45.9	38.8	46.9	123.5	220.4	1380.4	1594.7	973.3	771.3	151.0	191.8
85°	16.3	13.3	22.4	84.7	146.9	423.4	1478.3	818.2	642.8	73.5	145.9
87.5°	3.1	3.1	9.2	34.7	59.2	129.6	874.4	485.6	325.5	43.9	100.0
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: P299660

CATALOG NUMBER: GLNA-AF-05-LED-E1-SL2-7030-800-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3857.6	3857.6	3857.6	3857.6	3857.6	3857.6	3857.6	3857.6	3857.6	3857.6	3857.6
2.5°	3845.3	3801.5	3742.3	3669.8	3584.1	3508.6	3452.5	3394.4	3382.1	3361.7	3358.7
5°	3819.8	3744.3	3597.4	3429.1	3249.5	3087.3	2955.7	2838.3	2786.3	2741.4	2736.3
7.5°	3782.1	3668.8	3418.9	3147.5	2866.9	2611.8	2395.5	2242.5	2101.7	2034.4	2024.2
10°	3738.2	3576.0	3217.9	2841.4	2453.7	2093.6	1772.2	1502.8	1339.6	1242.7	1230.4
12.5°	3697.4	3485.2	3012.8	2524.1	2008.9	1527.3	1114.1	857.0	685.6	616.2	608.1
15°	3678.0	3411.7	2821.0	2199.7	1543.6	972.3	609.1	471.4	415.2	398.9	397.9
17.5°	3676.0	3349.5	2633.3	1864.0	1081.5	565.2	396.9	362.2	351.0	346.9	346.9
20°	3674.9	3290.3	2445.5	1516.1	686.6	376.5	330.6	322.4	314.2	309.1	309.1
22.5°	3686.2	3237.3	2249.7	1161.0	432.6	305.1	290.8	282.6	272.4	265.3	264.2
25°	3697.4	3196.4	2049.7	826.4	313.2	265.3	251.0	239.8	225.5	216.3	215.3
27.5°	3699.4	3145.4	1835.4	553.0	262.2	231.6	213.2	195.9	179.6	170.4	169.4
30°	3668.8	3059.7	1597.7	373.4	231.6	201.0	176.5	158.1	142.8	135.7	135.7
32.5°	3608.6	2953.6	1336.5	281.6	206.1	172.4	145.9	128.6	118.3	115.3	114.3
35°	3554.6	2839.4	1068.2	238.7	184.7	145.9	119.4	108.1	102.0	101.0	100.0
37.5°	3522.9	2747.5	816.2	216.3	164.3	122.4	101.0	92.8	89.8	87.7	88.8
40°	3547.4	2671.0	603.0	197.9	143.9	102.0	85.7	81.6	78.6	77.5	77.5
42.5°	3654.5	2657.8	447.9	181.6	124.5	84.7	74.5	71.4	69.4	68.4	69.4
45°	3936.1	2739.4	347.9	166.3	105.1	71.4	63.3	62.2	61.2	61.2	61.2
47.5°	4359.5	2907.7	289.8	149.0	87.7	61.2	55.1	54.1	53.1	54.1	54.1
50°	5076.8	3215.8	259.1	131.6	72.4	52.0	46.9	46.9	46.9	46.9	48.0
52.5°	6167.4	3821.9	238.7	114.3	59.2	43.9	39.8	39.8	40.8	40.8	41.8
55°	7382.5	4625.8	220.4	96.9	50.0	36.7	32.6	33.7	34.7	35.7	35.7
57.5°	8700.7	5516.5	205.1	79.6	42.9	29.6	27.5	28.6	29.6	31.6	31.6
60°	10291.3	6480.6	182.6	62.2	35.7	23.5	21.4	23.5	26.5	28.6	29.6
62.5°	12037.9	7413.1	154.1	49.0	29.6	18.4	17.3	21.4	25.5	27.5	28.6
65°	13231.6	7705.9	118.3	39.8	22.4	13.3	14.3	19.4	24.5	27.5	27.5
67°	12748.0	6986.7	96.9	33.7	18.4	10.2	13.3	19.4	24.5	26.5	27.5
67.5°	12412.4	6705.1	92.8	32.6	17.3	10.2	13.3	19.4	24.5	27.5	27.5
70°	10099.5	5037.0	77.5	24.5	14.3	9.2	11.2	18.4	23.5	26.5	26.5
72.5°	7017.3	3105.6	69.4	17.3	12.2	8.2	10.2	17.3	22.4	25.5	26.5
75°	3336.2	1124.3	59.2	13.3	11.2	7.1	9.2	17.3	22.4	25.5	25.5
77.5°	680.5	261.2	48.0	11.2	9.2	7.1	8.2	16.3	21.4	24.5	24.5
80°	223.4	101.0	35.7	10.2	9.2	7.1	8.2	15.3	21.4	23.5	24.5
82.5°	161.2	51.0	23.5	10.2	9.2	7.1	7.1	15.3	20.4	23.5	23.5
85°	123.5	35.7	15.3	10.2	9.2	7.1	7.1	14.3	19.4	22.4	22.4
87.5°	81.6	14.3	12.2	10.2	9.2	7.1	7.1	14.3	18.4	21.4	22.4
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)