

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: P299995

Luminaire Tested: **GLNA-AF-04-LED-E1-SL3-7060-800-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299995  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194479)  
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-SL3-7060-800-HSS  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 5700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III  
w/Spill Control WITH HOUSESIDE SHEILD OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15053.8 lumens  
Efficiency: N/A  
Efficacy: 88.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Short - Non-Cutoff  
BUG Rating: B1 - U0 - G3

Input Watts (W): 171  
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

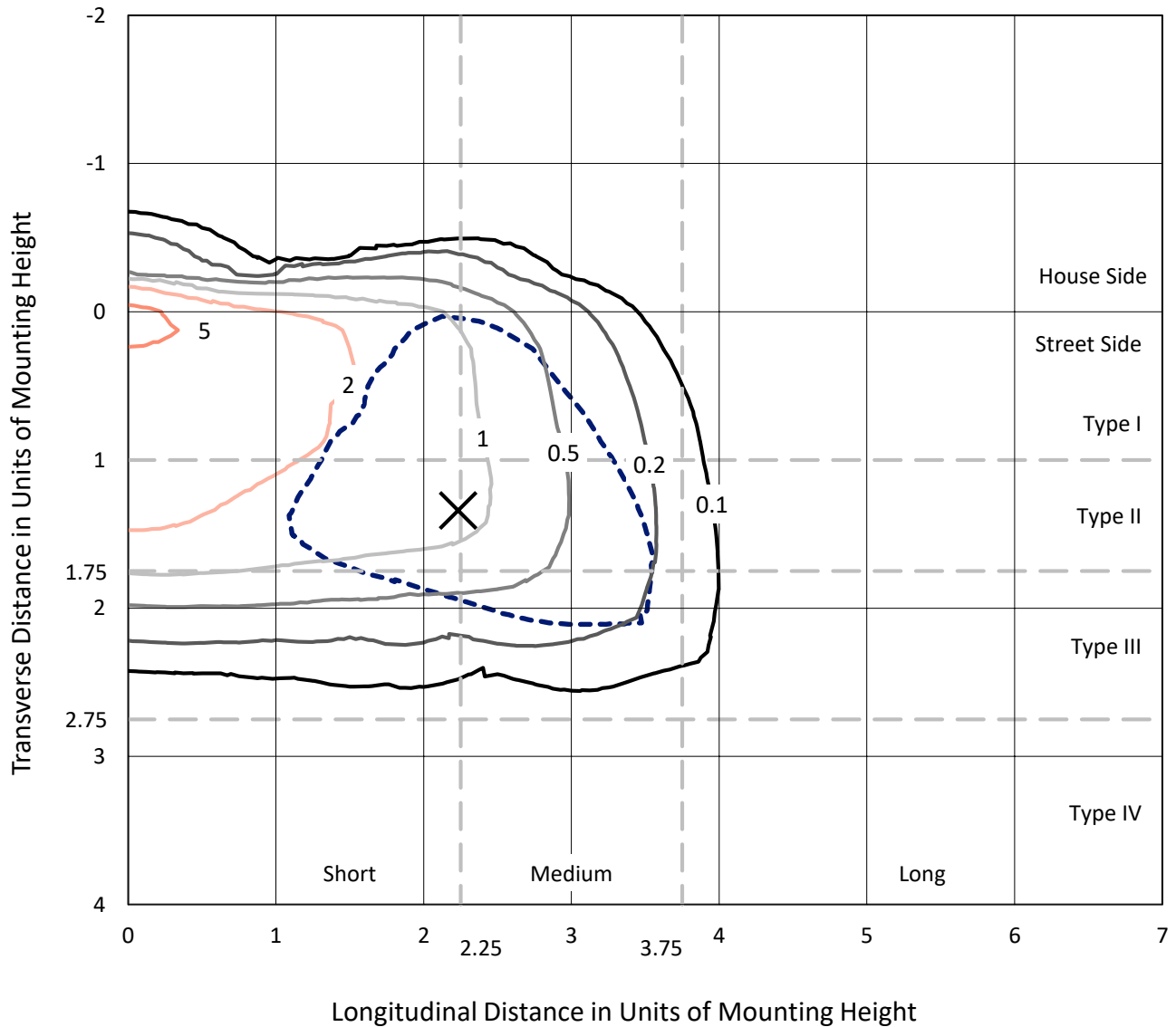


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

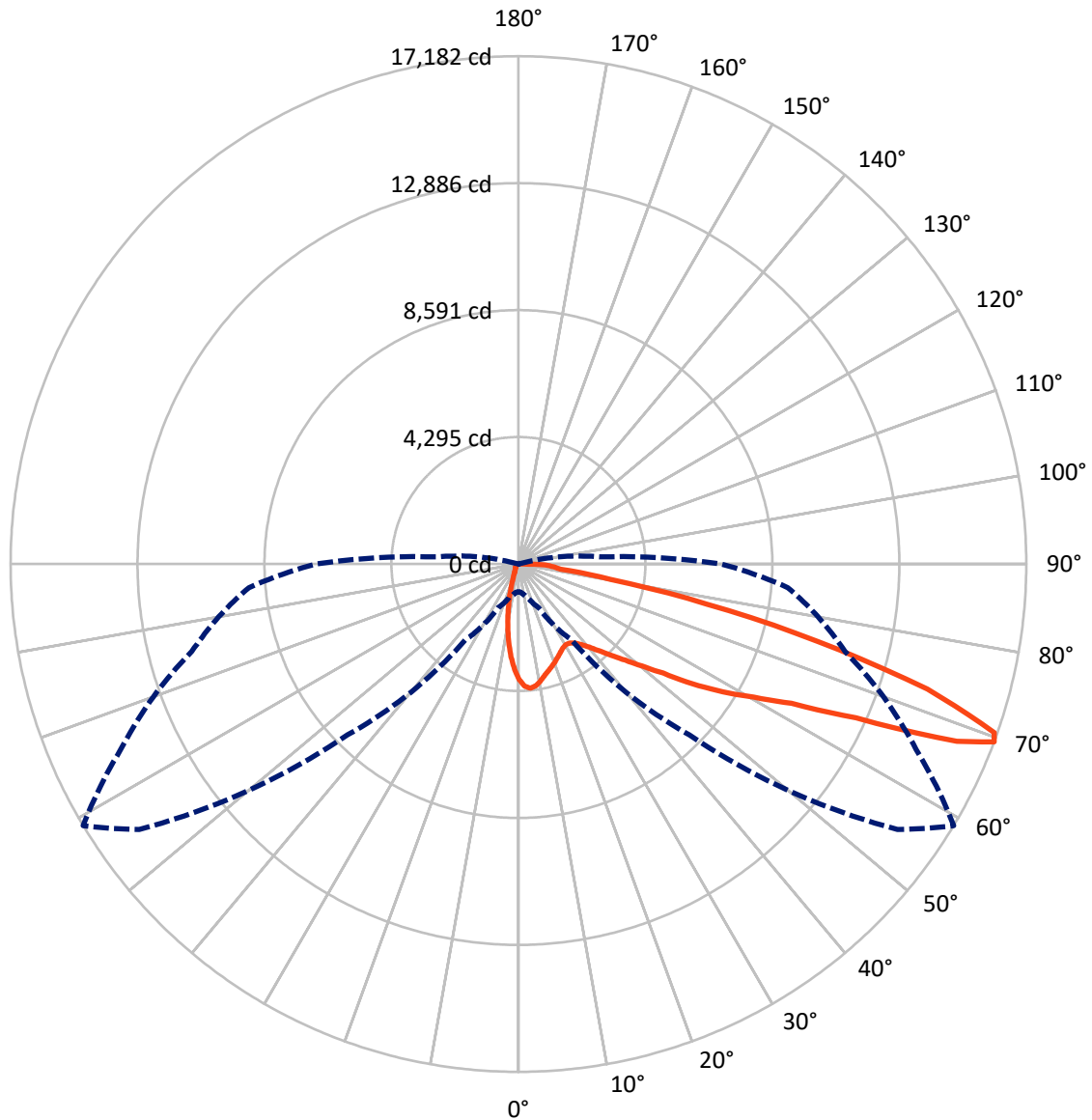


Based on 25 foot mounting height. Maximum calculated value = 6.3 fc  
 Type III - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1225.9	0.0	1225.9
	% Fixture	8.1	0.0	8.1
<b>Street Side</b>	Lumens	13827.9	0.0	13827.9
	% Fixture	91.9	0.0	91.9
<b>Total</b>	Lumens	15053.8	0.0	15053.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	318.1	2.1
10°-20°	657.2	4.4
20°-30°	884.3	5.9
30°-40°	1284.0	8.5
40°-50°	2137.9	14.2
50°-60°	3335.1	22.2
60°-70°	4126.9	27.4
70°-80°	2091.5	13.9
80°-90°	218.8	1.5
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°	15053.8	100.0
0°-180°	15053.8	100.0



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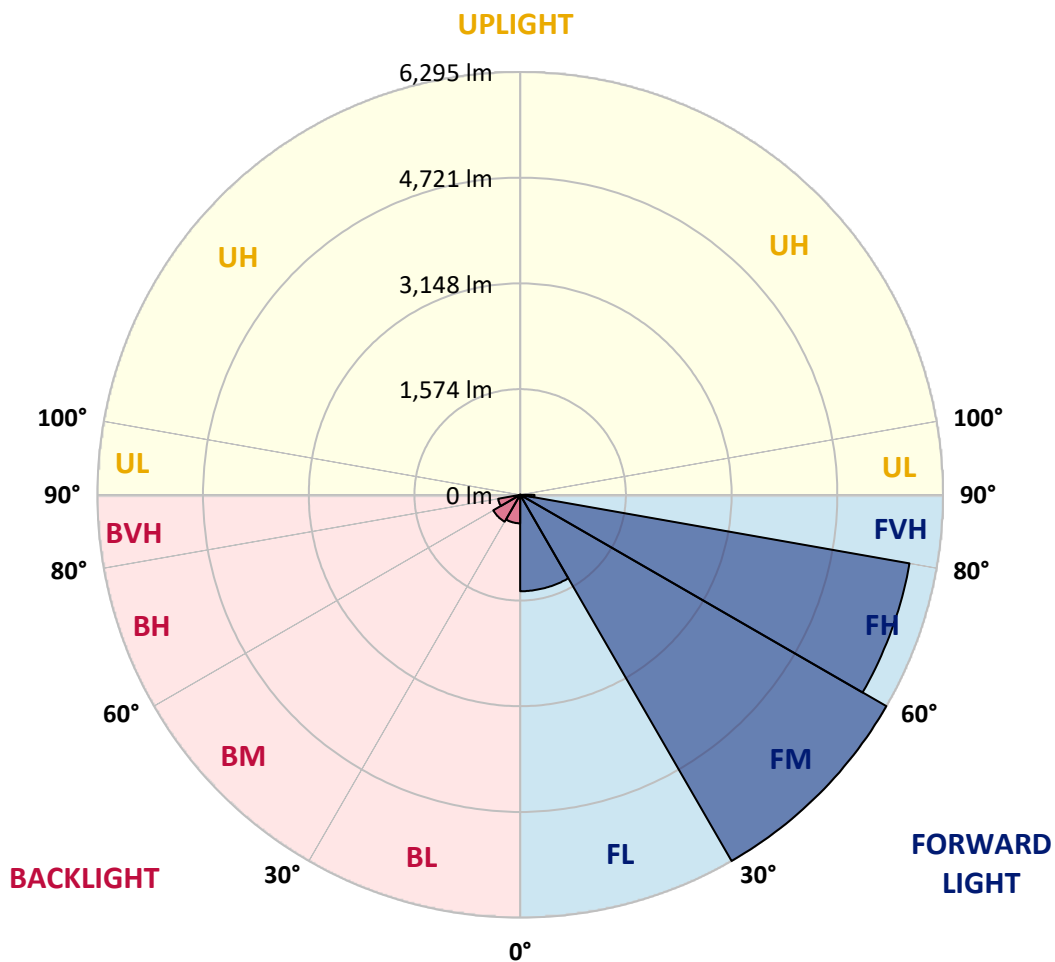
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1435.2	9.5			
FM	(30°-60°)	6295.1	41.8			
FH	(60°-80°)	5885.5	39.1			G3/7500
FVH	(80°-90°)	212.1	1.4			G2/225
BL	(0°-30°)	424.3	2.8	B1/500		
BM	(30°-60°)	461.9	3.1	B1/1000		
BH	(60°-80°)	332.9	2.2	B1/500		G1/500
BVH	(80°-90°)	6.7	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-G3**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	3918.2	3918.2	3918.2	3918.2	3918.2	3918.2	3918.2	3918.2	3918.2	3918.2	3918.2
2.5°	4294.5	4292.9	4274.1	4265.6	4250.2	4217.9	4167.7	4141.4	4098.9	4024.7	3925.2
5°	4255.3	4275.9	4286.8	4287.8	4298.9	4286.8	4241.7	4219.8	4161.0	4041.7	3863.1
7.5°	3989.9	3997.3	4029.0	4056.1	4108.9	4159.2	4175.4	4165.9	4131.1	4003.5	3765.9
10°	3705.6	3713.1	3750.7	3786.3	3857.9	3935.2	4016.9	4034.2	4048.6	3948.9	3672.3
12.5°	3460.2	3468.0	3506.4	3553.0	3636.5	3731.9	3858.7	3886.8	3950.7	3897.1	3597.3
15°	3249.2	3252.5	3290.1	3347.9	3447.6	3570.0	3714.1	3759.2	3857.1	3860.5	3531.9
17.5°	3069.5	3078.0	3101.2	3156.4	3265.4	3416.9	3584.7	3649.4	3764.1	3829.8	3468.0
20°	2959.7	2968.2	2967.5	2998.1	3096.1	3257.7	3455.3	3532.7	3672.3	3798.4	3411.0
22.5°	2938.6	2938.6	2916.4	2912.1	2970.0	3105.3	3320.8	3415.1	3589.6	3784.7	3371.1
25°	3014.4	3010.8	2955.6	2910.5	2913.1	2993.7	3190.4	3302.8	3520.0	3794.0	3349.7
27.5°	3174.4	3170.0	3100.2	3014.4	2945.3	2944.5	3091.7	3212.6	3464.6	3838.3	3358.2
30°	3395.5	3394.0	3318.2	3210.0	3085.0	2970.0	3057.7	3167.5	3428.8	3918.2	3377.8
32.5°	3637.3	3634.7	3577.8	3463.8	3305.3	3085.0	3093.5	3185.5	3439.1	4024.7	3425.4
35°	3893.7	3889.3	3864.6	3765.1	3590.6	3296.8	3211.0	3282.4	3503.8	4183.9	3519.0
37.5°	4171.0	4175.4	4193.2	4097.8	3914.9	3594.0	3407.7	3456.1	3633.9	4400.2	3671.3
40°	4580.6	4579.8	4585.7	4460.5	4284.4	3957.4	3682.4	3697.9	3852.0	4687.0	3903.0
42.5°	5323.6	5271.8	5114.3	4858.9	4681.9	4372.8	4029.0	4012.8	4118.5	5041.9	4227.2
45°	6322.3	6211.5	5803.0	5313.5	5087.0	4841.1	4455.3	4403.5	4470.8	5468.4	4627.5
47.5°	7181.0	7066.1	6488.3	5786.7	5516.9	5285.5	4955.0	4861.5	4883.7	5946.0	5134.7
50°	7473.0	7416.8	6912.2	6198.8	5933.1	5844.7	5534.9	5420.8	5389.3	6498.3	5722.8
52.5°	7371.7	7367.6	7031.3	6466.1	6314.6	6423.6	6264.3	6132.3	6016.6	7080.8	6321.3
55°	7209.1	7230.5	7079.7	6700.1	6695.0	6952.2	7262.0	7152.2	6816.9	7713.2	6837.2
57.5°	6760.7	6851.7	7052.7	7142.9	7352.2	7615.3	8092.9	8157.6	7760.9	8197.5	7265.3
60°	5485.4	5685.4	6342.6	7206.5	8199.3	8854.7	9095.7	9150.8	8535.4	8600.1	7843.4
62.5°	3893.7	4097.8	4931.3	6392.9	8211.9	10483.0	10589.5	10372.5	9388.5	9197.0	8840.3
65°	2066.7	2224.4	2905.3	4614.6	7119.9	10861.1	13202.0	12555.1	10893.3	10370.7	10128.1
67.5°	1057.2	1104.9	1375.7	2258.5	4894.7	9647.2	15543.7	15999.1	13487.1	11535.3	10066.0
69°	935.5	963.6	1143.3	1632.7	3134.2	8171.2	15657.9	17181.6	14845.0	11438.2	9147.5
70°	905.7	930.4	1093.8	1477.8	2449.9	6852.4	15221.1	17077.7	15192.2	11068.8	8461.4
72.5°	768.8	789.9	973.9	1305.9	1991.2	3401.5	12364.4	14471.3	13632.7	9220.7	6124.6
75°	514.2	584.0	934.8	1224.2	1852.3	1932.4	8151.6	10457.5	9714.5	6219.2	3190.4
77.5°	123.5	132.7	263.9	973.9	1694.0	1700.7	4192.4	6500.9	5302.5	2216.7	754.1
80°	66.5	63.9	74.0	193.3	1577.3	1596.1	1887.3	3155.6	1893.3	367.8	248.4
82.5°	46.9	44.3	47.7	80.9	496.4	1453.8	1365.4	1428.3	784.8	141.2	111.6
85°	17.0	16.2	26.3	73.2	155.7	835.8	1402.8	1178.1	635.8	64.7	81.7
87.5°	5.9	5.2	10.3	39.9	47.7	355.9	865.7	890.4	250.3	39.2	38.4
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°	3918.2	3918.2	3918.2	3918.2	3918.2	3918.2	3918.2	3918.2	3918.2	3918.2	3918.2
2.5°	3883.4	3830.6	3733.7	3633.9	3541.9	3431.4	3376.0	3321.6	3298.6	3290.1	3250.2
5°	3771.1	3681.6	3475.7	3268.7	3078.0	2875.5	2742.0	2634.7	2571.6	2540.9	2492.5
7.5°	3627.2	3480.9	3168.2	2849.2	2552.0	2259.2	2042.2	1875.2	1760.3	1705.1	1654.9
10°	3487.6	3292.7	2848.4	2413.3	2009.8	1621.6	1321.9	1104.9	966.2	902.3	861.6
12.5°	3362.6	3109.7	2539.4	1988.6	1481.9	1027.6	722.7	550.0	463.9	434.0	419.6
15°	3251.0	2941.2	2247.4	1585.0	1003.6	587.4	395.1	336.3	322.7	322.7	320.9
17.5°	3145.3	2776.0	1965.4	1206.2	629.9	359.3	300.5	292.8	292.8	296.1	296.1
20°	3044.0	2618.5	1693.0	865.7	396.6	285.0	271.6	269.8	271.6	275.8	275.8
22.5°	2957.2	2475.5	1438.6	594.1	294.6	257.0	250.3	247.7	248.4	251.0	252.8
25°	2892.5	2354.6	1198.7	402.6	253.6	234.0	226.5	222.2	218.8	218.8	220.4
27.5°	2851.7	2252.5	966.2	292.8	228.1	212.9	200.8	194.1	186.3	182.2	183.8
30°	2821.8	2155.4	748.2	239.2	204.4	188.9	173.7	162.6	151.5	146.4	148.2
32.5°	2810.8	2077.0	559.3	211.1	183.0	166.0	147.2	132.7	120.9	116.5	117.5
35°	2840.7	2014.9	409.5	190.7	166.0	144.6	123.5	107.2	97.9	95.4	96.1
37.5°	2919.0	1981.7	306.4	173.7	150.8	126.8	103.1	87.6	81.7	81.7	82.5
40°	3066.9	1980.9	246.1	161.9	137.1	109.8	85.0	74.0	70.6	72.4	73.2
42.5°	3283.2	2026.0	214.4	150.8	125.3	93.6	70.6	62.9	62.1	63.9	64.7
45°	3578.5	2108.5	197.4	141.2	112.4	78.3	59.5	54.4	54.4	57.0	58.0
47.5°	3940.4	2229.3	183.0	132.0	99.5	65.5	51.0	47.7	48.5	51.0	51.8
50°	4376.2	2381.9	168.6	121.6	90.2	54.4	44.3	41.8	42.5	45.9	46.9
52.5°	4872.6	2587.1	156.7	112.4	78.3	45.1	37.4	35.8	37.4	41.0	41.8
55°	5298.1	2770.8	142.3	104.6	62.9	37.4	30.7	30.7	32.5	36.6	37.4
57.5°	5707.6	2963.1	129.4	90.2	49.5	29.9	25.5	26.3	28.9	33.2	34.0
60°	6308.6	3289.1	114.2	75.8	37.4	23.7	21.4	22.2	25.5	29.9	30.7
62.5°	7329.2	3785.5	98.7	62.9	28.9	18.8	17.0	18.8	22.9	28.1	28.9
65°	8250.3	3987.3	80.9	52.8	22.2	14.4	14.4	17.0	22.2	27.3	28.1
67.5°	7736.9	3356.4	62.9	41.8	17.0	11.1	11.9	16.2	21.4	27.3	28.1
69°	6842.4	2744.5	53.6	33.2	14.4	10.3	11.1	16.2	21.4	26.3	27.3
70°	6145.2	2317.2	47.7	28.1	12.9	10.3	11.1	15.2	21.4	26.3	27.3
72.5°	4115.9	1251.3	38.4	20.4	11.9	9.3	9.3	15.2	20.4	25.5	26.3
75°	1768.8	345.6	30.7	14.4	10.3	8.5	8.5	14.4	19.6	24.7	26.3
77.5°	323.4	87.6	24.7	12.9	10.3	8.5	7.7	13.7	18.8	23.7	24.7
80°	128.6	43.3	19.6	11.1	9.3	7.7	6.7	12.9	17.8	22.9	23.7
82.5°	77.6	24.7	16.2	10.3	9.3	6.7	5.9	11.1	17.0	22.2	22.9
85°	62.9	17.0	12.9	10.3	8.5	6.7	5.2	10.3	15.2	21.4	22.2
87.5°	30.7	11.9	11.9	9.3	8.5	6.7	5.2	9.3	14.4	20.4	21.4
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)