

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: P299830

Luminaire Tested: **GLNA-AF-03-LED-E1-SL3**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299830  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24288)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-03-LED-E1-SL3  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(3) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V  
Square Medium OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 18110.9 lumens  
Efficiency: N/A  
Efficacy: 109.1 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type III - Medium - Non-Cutoff  
BUG Rating: B2 - U0 - G3

Input Watts (W): 166  
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

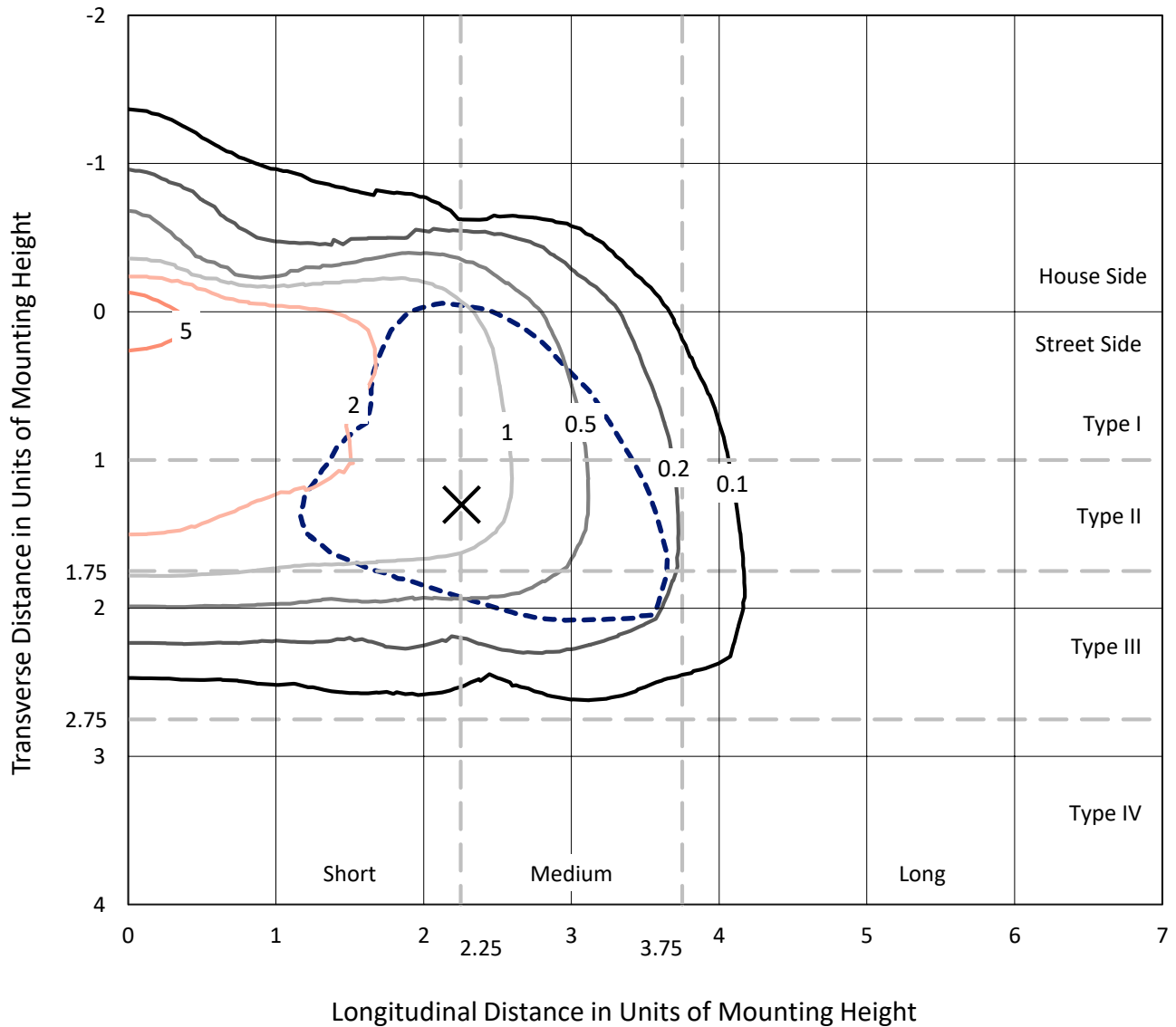


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

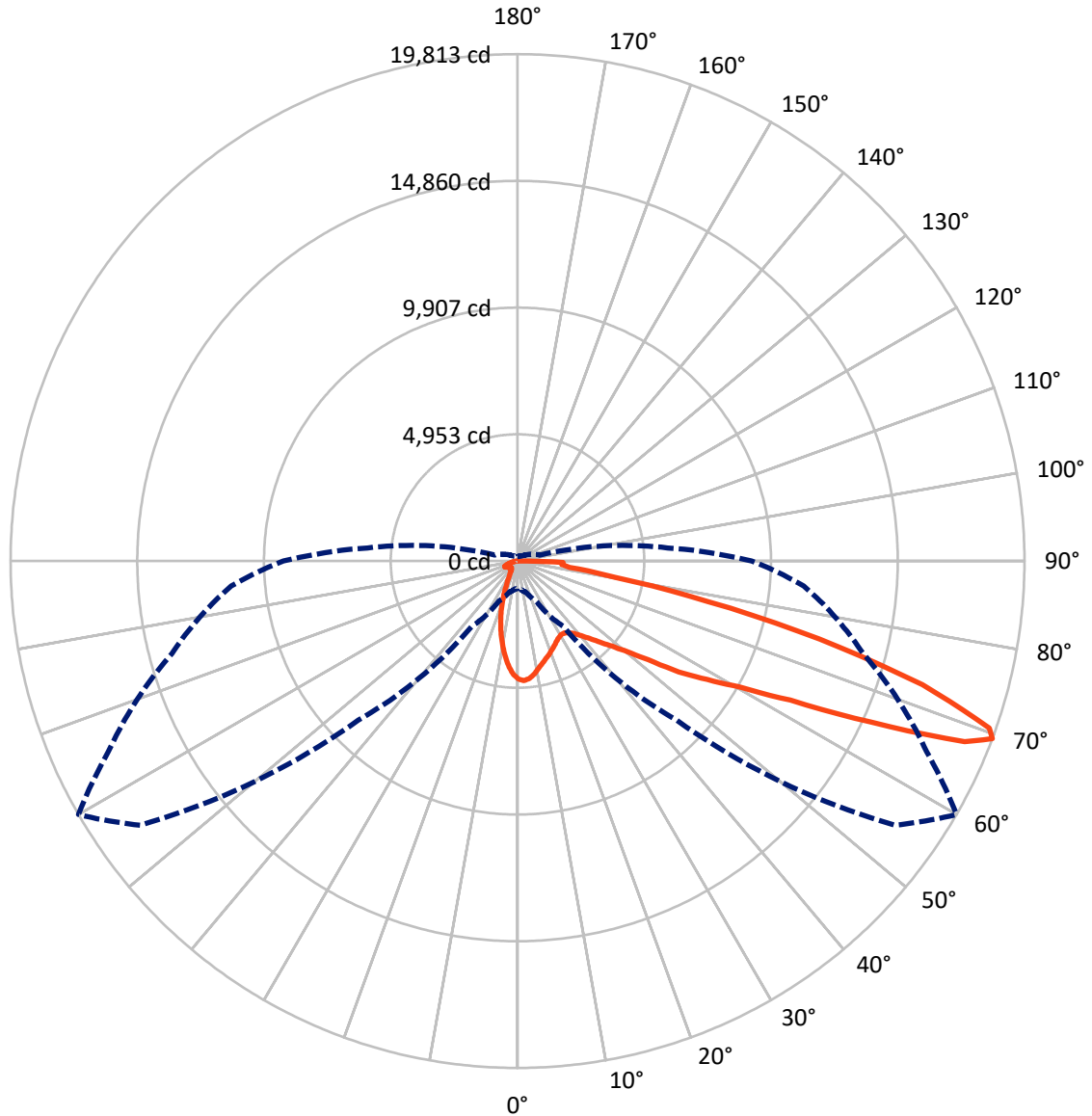


Based on 25 foot mounting height. Maximum calculated value = 7.4 fc  
 Type III - Medium - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2576.6	0.0	2576.6
	% Fixture	14.2	0.0	14.2
<b>Street Side</b>	Lumens	15534.3	0.0	15534.3
	% Fixture	85.8	0.0	85.8
<b>Total</b>	Lumens	18110.9	0.0	18110.9
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	390.2	2.2
10°-20°	831.4	4.6
20°-30°	1059.3	5.8
30°-40°	1456.3	8.0
40°-50°	2363.0	13.0
50°-60°	3789.6	20.9
60°-70°	5043.6	27.8
70°-80°	2723.2	15.0
80°-90°	454.4	2.5
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°	18110.9	100.0
0°-180°	18110.9	100.0

**Coefficient of Utilization**



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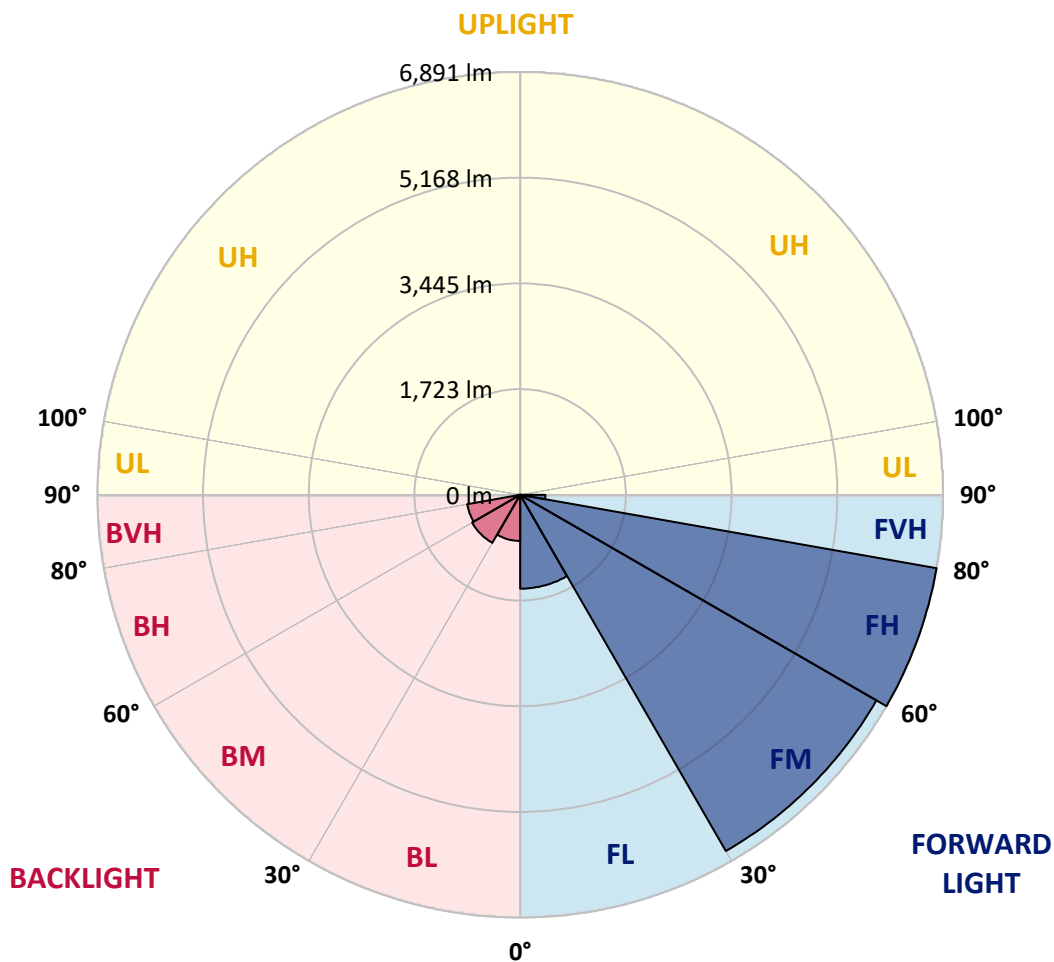
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1529.2	8.4			
FM	(30°-60°)	6703.6	37.0			
FH	(60°-80°)	6890.9	38.0			G3/7500
FVH	(80°-90°)	410.6	2.3			G3/500
BL	(0°-30°)	751.7	4.2	B2/1000		
BM	(30°-60°)	905.2	5.0	B1/1000		
BH	(60°-80°)	876.0	4.8	B2/1000		G2/1000
BVH	(80°-90°)	43.8	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

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

Type III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	4614.9	4614.9	4614.9	4614.9	4614.9	4614.9	4614.9	4614.9	4614.9	4614.9	4614.9
2.5°	4709.4	4719.9	4715.5	4712.9	4720.8	4708.5	4683.2	4675.3	4663.1	4634.2	4585.2
5°	4532.7	4564.2	4562.4	4586.1	4625.4	4635.9	4624.6	4626.3	4603.6	4567.7	4486.3
7.5°	4227.4	4240.5	4247.5	4299.1	4370.8	4428.6	4477.6	4493.3	4482.8	4452.2	4347.2
10°	3912.4	3922.9	3939.5	3999.9	4090.9	4170.5	4263.2	4316.6	4339.4	4334.1	4216.9
12.5°	3642.1	3652.6	3674.5	3742.7	3851.2	3949.2	4083.9	4150.4	4204.6	4237.0	4111.0
15°	3399.7	3422.5	3443.5	3522.2	3643.8	3772.4	3924.7	4008.7	4092.6	4165.3	4017.4
17.5°	3210.8	3233.5	3245.8	3317.5	3447.0	3604.5	3782.9	3881.8	3986.8	4105.8	3924.7
20°	3101.4	3111.9	3106.7	3146.9	3263.3	3430.4	3642.1	3756.7	3883.5	4049.8	3831.9
22.5°	3070.8	3071.7	3052.4	3048.0	3123.3	3264.1	3491.6	3630.7	3786.4	4013.0	3752.3
25°	3145.2	3142.5	3090.0	3047.2	3055.0	3137.3	3346.4	3508.2	3705.1	4005.2	3691.1
27.5°	3310.5	3318.4	3240.5	3160.0	3080.4	3077.8	3236.1	3406.7	3638.6	4041.0	3664.8
30°	3542.3	3555.5	3472.4	3370.0	3220.4	3097.0	3193.3	3346.4	3597.5	4115.4	3660.5
32.5°	3796.1	3810.1	3747.1	3639.5	3443.5	3216.0	3223.0	3351.6	3595.7	4219.5	3690.2
35°	4066.4	4082.1	4049.8	3958.8	3740.9	3435.6	3336.8	3436.5	3652.6	4378.7	3769.8
37.5°	4368.2	4392.7	4401.5	4314.9	4082.1	3725.2	3523.1	3597.5	3781.2	4600.1	3915.9
40°	4803.0	4837.2	4834.5	4710.3	4473.2	4116.3	3810.9	3830.2	3981.5	4895.8	4149.5
42.5°	5635.9	5642.9	5425.1	5154.7	4903.6	4527.4	4150.4	4134.6	4258.0	5270.2	4493.3
45°	6695.4	6666.5	6181.8	5659.5	5353.3	4999.9	4592.2	4515.2	4608.8	5726.9	4923.8
47.5°	7574.6	7508.1	6895.7	6174.8	5829.3	5513.4	5111.0	4976.3	5027.9	6244.8	5480.2
50°	7879.9	7830.1	7322.7	6603.5	6279.8	6139.8	5749.6	5558.9	5572.9	6862.5	6132.0
52.5°	7814.3	7807.3	7468.8	6886.1	6701.5	6797.7	6654.3	6396.2	6259.7	7548.4	6835.4
55°	7659.5	7674.4	7551.9	7215.0	7183.6	7432.9	7836.2	7645.5	7221.2	8240.4	7562.4
57.5°	7121.4	7159.9	7429.4	7628.9	7959.6	8330.5	8788.1	8733.8	8256.1	8988.4	8426.7
60°	5737.4	5826.6	6549.3	7548.4	8758.3	9918.4	10123.1	9997.1	9323.5	9916.6	9568.4
62.5°	4020.0	4112.8	4971.9	6535.3	8627.1	11711.9	12509.8	11966.5	10856.3	11284.1	11046.1
65°	2152.2	2196.8	2852.9	4534.4	7283.3	12081.9	15997.9	15171.1	13283.1	12969.9	12310.3
67.5°	1187.2	1211.7	1462.8	2289.5	4664.8	10639.3	18220.0	18844.7	16316.3	14092.4	12080.2
69°	1073.5	1096.2	1260.7	1734.0	3121.5	8796.8	18003.1	19813.2	17646.1	13981.3	11229.8
70°	1049.8	1070.8	1218.7	1598.4	2526.6	7250.9	17276.0	19565.6	17962.8	13583.2	10487.9
72.5°	944.9	967.6	1111.1	1435.7	2159.2	3615.0	13684.7	16542.9	16308.4	11777.5	7955.2
75°	881.0	902.0	1145.2	1405.9	2067.3	2287.8	9021.7	12192.2	11988.3	8238.6	4289.5
77.5°	377.1	375.3	531.0	1189.8	2097.9	2215.2	4847.7	7616.6	6949.1	3521.3	1231.8
80°	252.0	247.6	252.0	349.9	1923.8	2227.4	2539.7	3866.0	2920.3	897.6	607.2
82.5°	217.0	213.5	221.3	213.5	676.3	2542.4	2159.2	2055.9	1388.4	510.0	301.0
85°	146.1	140.0	190.7	191.6	319.3	2258.9	2432.1	1736.6	1123.3	302.7	148.7
87.5°	70.0	68.2	111.1	135.6	187.2	917.7	2728.7	1779.5	1133.0	154.9	70.9
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°	4614.9	4614.9	4614.9	4614.9	4614.9	4614.9	4614.9	4614.9	4614.9	4614.9	4614.9
2.5°	4570.3	4534.4	4499.5	4457.5	4413.7	4364.7	4340.2	4315.7	4309.6	4302.6	4278.1
5°	4444.3	4393.6	4306.1	4209.9	4108.4	4009.5	3934.3	3887.0	3851.2	3832.8	3800.4
7.5°	4281.6	4207.2	4054.1	3887.9	3717.3	3561.6	3426.9	3342.0	3261.5	3223.9	3181.0
10°	4126.8	4015.7	3777.7	3532.7	3287.8	3052.4	2831.1	2674.5	2535.4	2457.5	2402.4
12.5°	3993.8	3841.6	3511.7	3180.2	2844.2	2509.1	2177.5	1916.8	1699.0	1584.4	1525.8
15°	3864.3	3680.6	3258.9	2838.1	2406.8	1951.0	1515.3	1219.6	1039.3	967.6	943.1
17.5°	3747.1	3511.7	3005.2	2493.4	1955.3	1404.2	1018.3	855.6	786.5	762.9	755.0
20°	3620.2	3341.1	2741.8	2132.9	1484.7	981.6	795.3	723.5	695.5	688.5	685.0
22.5°	3497.7	3173.2	2489.9	1747.1	1066.5	757.6	683.3	653.5	649.2	655.3	655.3
25°	3393.6	3022.7	2217.8	1343.8	783.0	637.8	611.5	604.5	621.2	643.9	648.3
27.5°	3315.8	2899.3	1928.2	992.1	623.8	554.7	553.8	565.2	606.3	650.0	658.8
30°	3262.4	2782.1	1618.5	715.6	523.2	488.2	502.2	526.7	587.0	649.2	665.8
32.5°	3235.3	2695.5	1295.7	553.8	447.9	428.7	452.3	482.1	541.5	599.3	621.2
35°	3256.3	2631.6	991.2	461.9	395.4	380.6	405.1	433.9	468.9	493.4	510.0
37.5°	3335.0	2606.2	748.0	413.8	359.6	345.6	364.8	381.4	395.4	402.4	410.3
40°	3504.7	2633.4	599.3	389.3	339.4	322.0	329.8	335.9	344.7	351.7	355.2
42.5°	3754.9	2714.7	537.2	379.7	329.0	303.6	301.8	304.5	315.8	329.0	331.6
45°	4104.9	2858.2	532.8	385.8	323.7	288.7	280.8	284.3	301.8	322.0	325.5
47.5°	4551.9	3076.9	567.8	404.2	328.1	280.8	267.7	272.1	294.0	321.1	325.5
50°	5093.5	3382.2	626.4	431.3	347.3	282.6	263.3	266.0	288.7	318.5	322.8
52.5°	5733.0	3815.3	690.3	457.6	367.4	294.0	266.8	260.7	281.7	308.0	313.2
55°	6444.3	4370.8	755.9	481.2	377.9	308.0	273.8	253.7	268.6	290.5	294.8
57.5°	7317.4	5147.7	869.6	503.9	384.9	317.6	280.8	246.7	252.0	267.7	271.2
60°	8499.4	6246.6	1070.0	541.5	400.7	321.1	280.0	240.6	235.3	244.1	245.8
62.5°	9915.8	7439.9	1237.1	588.8	426.9	323.7	274.7	236.2	221.3	221.3	223.1
65°	10756.5	7759.2	1144.3	628.2	448.8	321.1	268.6	231.8	210.8	201.2	202.1
67.5°	10043.5	6824.0	980.7	636.0	447.9	308.8	259.0	224.0	200.3	185.5	184.6
69°	9150.3	5887.9	907.2	615.0	426.9	293.1	246.7	215.2	192.5	176.7	175.8
70°	8430.2	5316.6	859.1	592.3	404.2	281.7	237.1	207.3	186.3	171.5	169.7
72.5°	6129.3	3483.7	734.0	509.2	333.3	236.2	204.7	182.0	166.2	157.5	155.7
75°	3062.9	1661.4	595.8	412.9	255.5	189.0	168.0	152.2	144.4	142.6	141.7
77.5°	1006.1	761.1	426.1	308.0	189.8	147.9	135.6	124.2	122.5	127.7	126.0
80°	552.9	442.7	270.3	203.8	129.5	108.5	106.7	100.6	103.2	112.0	110.2
82.5°	281.7	230.1	167.1	122.5	87.5	77.9	84.9	81.4	84.9	92.7	91.9
85°	139.1	126.0	105.9	74.4	57.7	49.9	60.4	63.0	64.7	70.9	70.9
87.5°	80.5	74.4	56.0	35.0	28.9	26.2	35.0	34.1	40.2	43.7	42.9
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)