

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: P300304

Luminaire Tested: **GLNA-AF-02-LED-E1-AFL**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P300304  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24165)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-02-LED-E1-AFL  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(2) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive Frontline OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12451.4 lumens  
Efficiency: N/A  
Efficacy: 110.2 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B2 - U0 - G2  
  
Input Watts (W): 113  
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

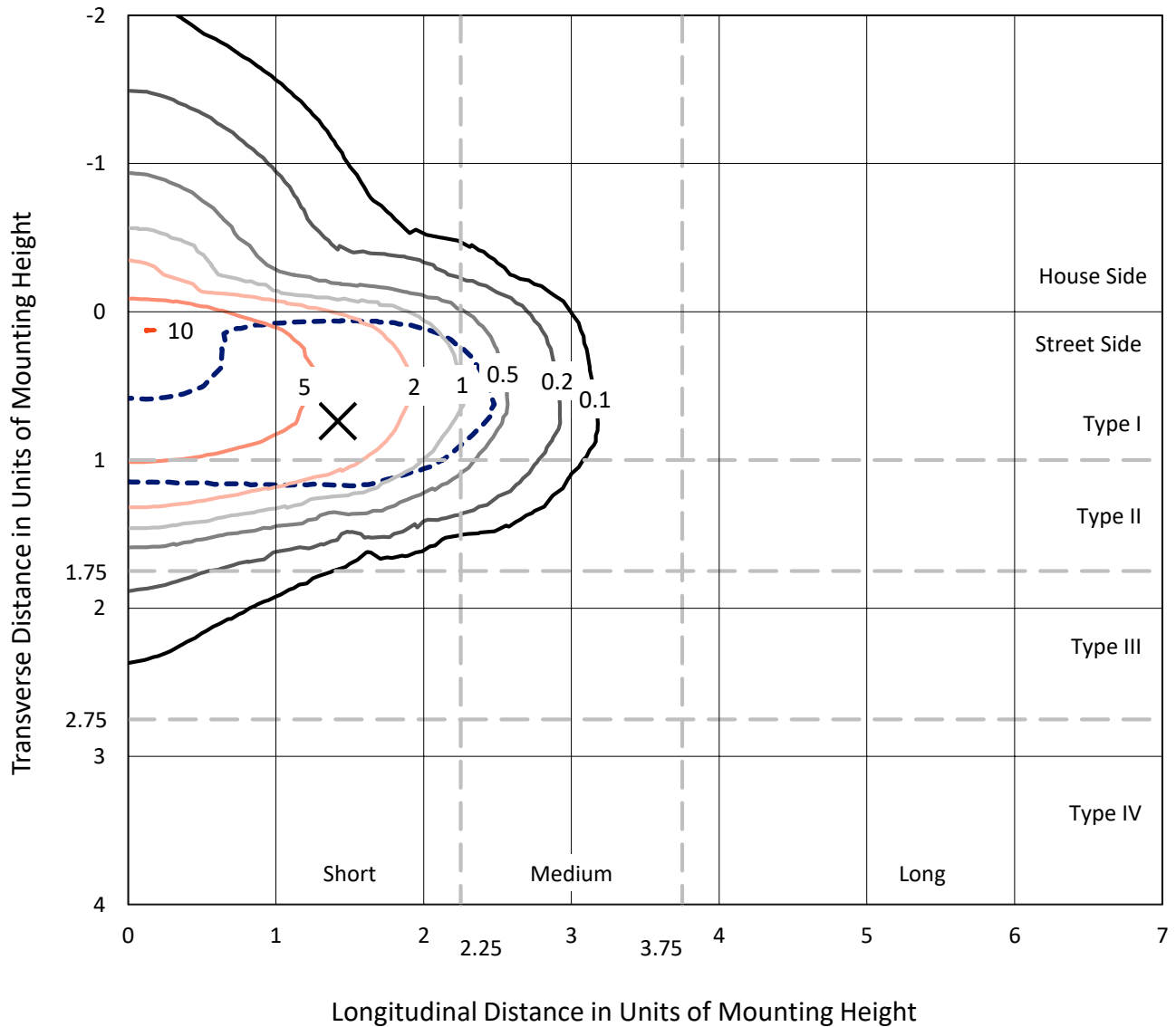


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

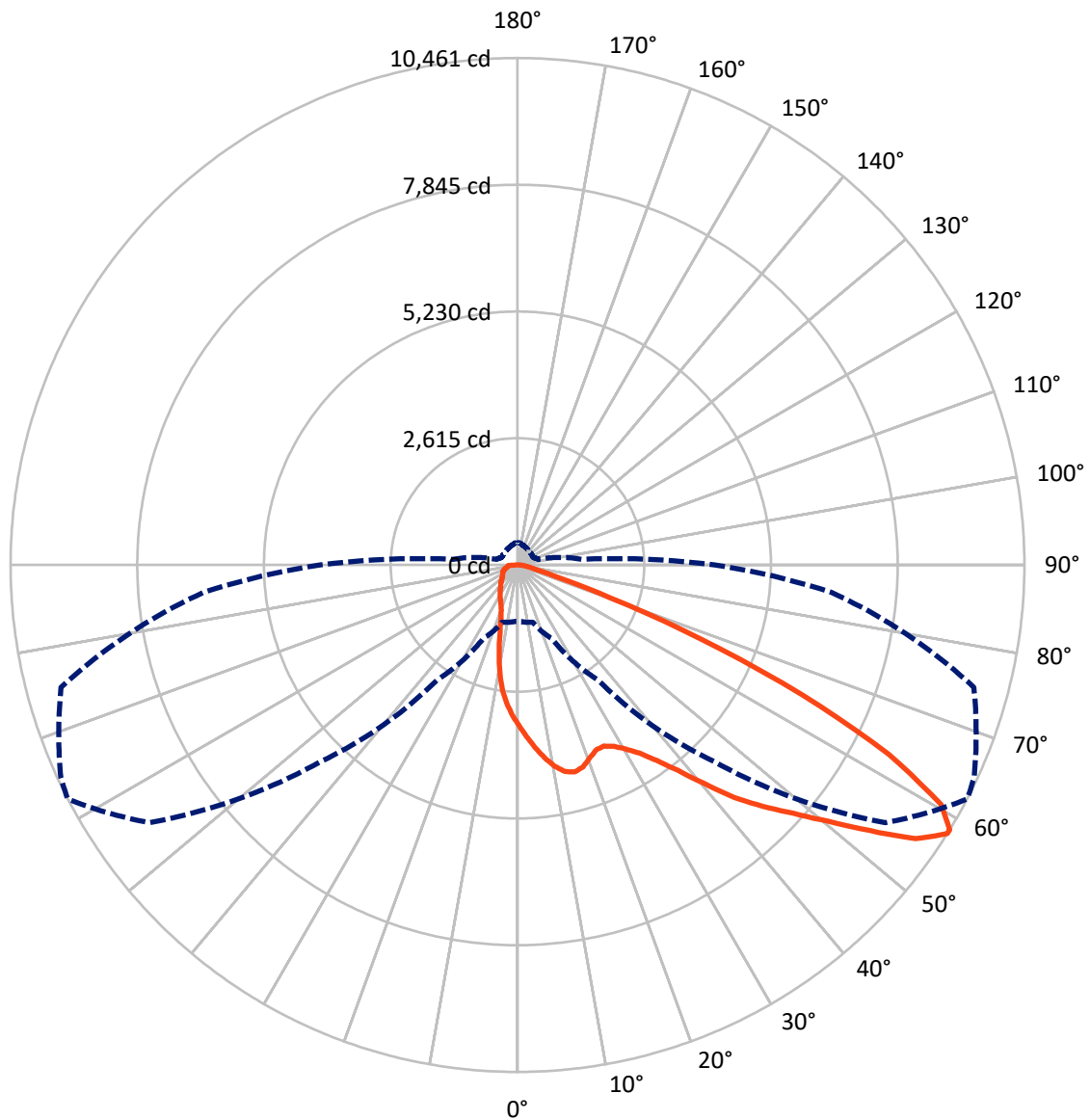


Based on 20 foot mounting height. Maximum calculated value = 10.1 fc  
 Type II - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 62.5-Deg Lateral    - - - Horizontal Cone Through 58-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1898.9	0.0	1898.9
	% Fixture	15.3	0.0	15.3
<b>Street Side</b>	Lumens	10552.5	0.0	10552.5
	% Fixture	84.7	0.0	84.7
<b>Total</b>	Lumens	12451.4	0.0	12451.4
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	295.8	2.4
10°-20°	756.1	6.1
20°-30°	1222.3	9.8
30°-40°	1940.4	15.6
40°-50°	2839.2	22.8
50°-60°	2969.5	23.8
60°-70°	1754.4	14.1
70°-80°	494.2	4.0
80°-90°	179.4	1.4
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°	12451.4	100.0
0°-180°	12451.4	100.0

**Coefficient of Utilization**



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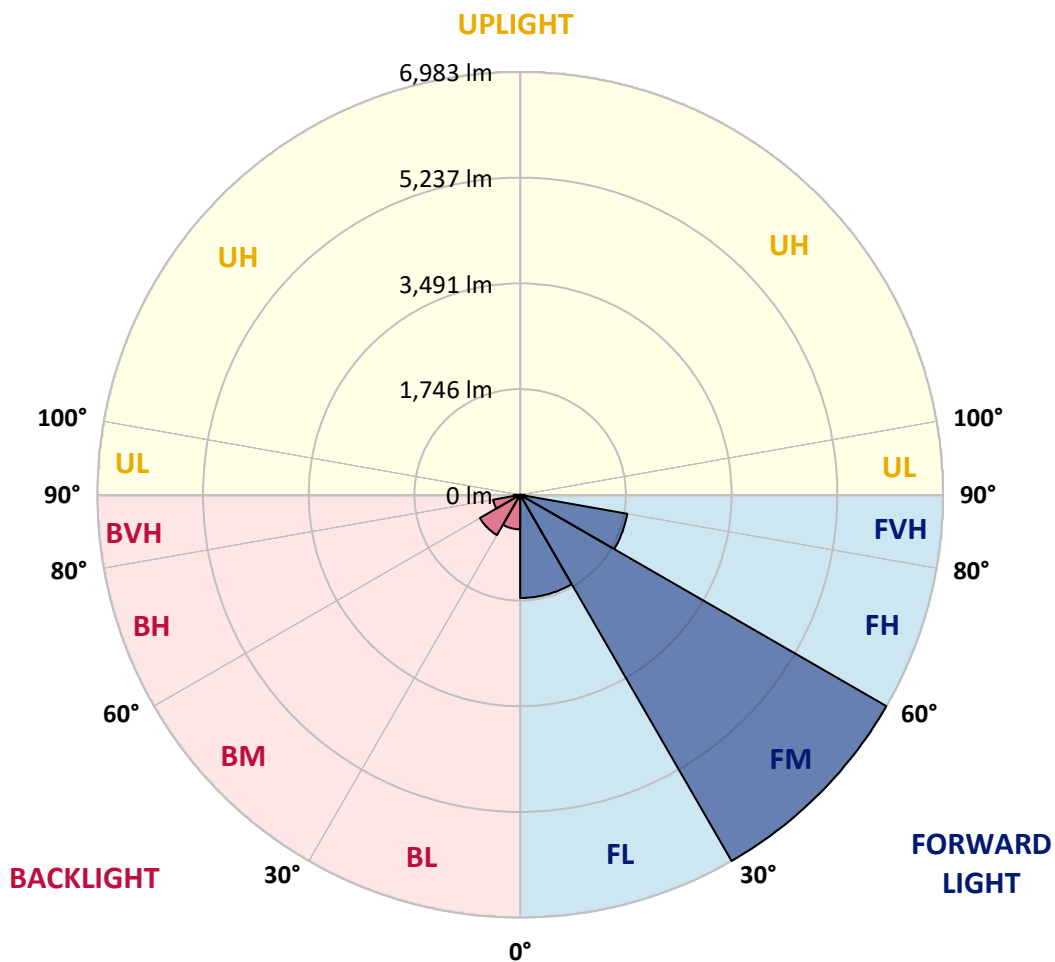
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1703.5	13.7			
FM	(30°-60°)	6982.6	56.1			
FH	(60°-80°)	1795.5	14.4			G1/1800
FVH	(80°-90°)	70.8	0.6			G1/100
BL	(0°-30°)	570.7	4.6	B2/1000		
BM	(30°-60°)	766.4	6.2	B1/1000		
BH	(60°-80°)	453.1	3.6	B1/500		G1/500
BVH	(80°-90°)	108.6	0.9			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G2**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	62.5°	65°	75°	85°
0°	3307.4	3307.4	3307.4	3307.4	3307.4	3307.4	3307.4	3307.4	3307.4	3307.4	3307.4
2.5°	3779.4	3748.9	3729.6	3712.6	3690.3	3642.8	3578.9	3538.5	3517.9	3448.2	3365.5
5°	4150.0	4123.0	4103.1	4080.2	4040.4	3965.9	3862.7	3780.6	3740.2	3600.6	3435.3
7.5°	4063.2	4074.4	4109.0	4169.3	4220.9	4211.0	4118.9	4014.6	3961.2	3767.1	3516.2
10°	3540.2	3559.6	3619.4	3760.7	3989.3	4223.9	4295.4	4223.3	4169.3	3931.9	3599.4
12.5°	3435.3	3434.7	3439.4	3476.9	3612.9	3943.0	4301.3	4374.0	4341.7	4089.0	3684.5
15°	3478.1	3479.2	3475.7	3491.6	3533.8	3664.5	4121.9	4432.0	4454.9	4247.3	3772.4
17.5°	3590.6	3587.7	3574.2	3574.2	3589.5	3640.5	3910.8	4378.1	4483.6	4387.5	3849.8
20°	3779.4	3766.0	3730.2	3697.4	3680.9	3708.5	3824.0	4253.8	4433.8	4510.0	3913.7
22.5°	4008.1	3997.6	3939.5	3869.1	3812.3	3811.7	3868.6	4145.3	4347.6	4625.5	3967.6
25°	4303.6	4286.6	4200.4	4087.8	3988.2	3950.1	3965.9	4140.0	4300.7	4751.0	4015.7
27.5°	4650.7	4619.6	4517.6	4355.2	4208.6	4131.8	4109.0	4235.6	4343.5	4906.4	4082.6
30°	5071.7	5035.9	4905.2	4693.5	4486.5	4360.5	4311.8	4405.0	4485.4	5095.7	4189.9
32.5°	5550.7	5499.1	5347.9	5114.5	4842.4	4650.1	4571.0	4629.0	4692.9	5323.8	4324.1
35°	6212.7	6151.1	5932.4	5610.5	5303.3	5038.9	4912.2	4954.4	5016.6	5663.9	4518.2
37.5°	6664.1	6636.6	6491.2	6188.6	5854.4	5550.1	5354.3	5378.9	5414.1	6089.0	4766.8
40°	6660.0	6671.2	6674.1	6677.0	6449.6	6158.2	5947.7	5921.9	5914.8	6555.7	5049.4
42.5°	6326.4	6372.2	6519.9	6819.5	6957.9	6824.2	6631.3	6556.8	6519.9	7105.6	5349.0
45°	5815.7	5840.4	6117.1	6702.3	7218.2	7483.8	7337.8	7103.3	7036.5	7611.1	5597.6
47.5°	5552.5	5579.4	5753.6	6391.5	7215.3	8016.8	8101.2	7654.4	7534.8	8050.8	5812.2
50°	4925.7	4982.0	5201.3	5850.9	6952.0	8261.9	8899.2	8311.1	8063.7	8478.8	6027.4
52.5°	3774.7	3861.5	4107.2	4962.1	6284.2	8140.5	9537.7	9107.4	8757.9	8922.1	6212.1
55°	2381.1	2445.6	2651.9	3504.5	5027.1	7509.0	9779.9	9968.7	9657.9	9341.9	6372.2
57.5°	1294.6	1323.3	1400.7	1934.9	3269.9	6113.0	9426.9	10458.8	10329.8	9698.4	6492.9
58°	1158.6	1177.9	1226.0	1676.9	2900.0	5731.3	9270.4	10460.6	10396.1	9750.6	6502.3
60°	859.5	849.6	806.8	956.9	1614.1	3959.4	8324.0	10042.0	10231.3	9814.5	6456.6
62.5°	755.2	731.1	643.8	633.8	785.1	1824.1	6369.2	8601.9	9049.3	9449.8	6178.7
65°	709.5	683.7	571.1	534.7	566.4	771.6	3751.9	6451.3	7012.4	8344.0	5468.0
67.5°	675.4	642.0	524.8	474.9	477.3	510.1	1503.9	4063.2	4694.7	6335.2	4253.2
70°	642.6	606.3	485.5	428.0	414.5	403.4	598.0	2034.0	2606.8	4001.7	2711.7
72.5°	607.4	571.7	450.9	391.1	364.7	327.8	390.5	832.0	1162.1	1893.2	1230.1
75°	556.4	524.2	416.3	358.2	320.7	271.5	294.9	434.5	521.2	754.0	592.8
77.5°	493.7	467.3	377.6	331.3	284.4	220.5	226.9	301.4	334.2	431.5	352.4
80°	354.7	364.1	336.0	297.9	253.3	178.8	174.1	219.9	237.5	277.3	229.3
82.5°	249.2	254.5	277.9	243.3	209.3	140.7	128.4	154.8	165.3	182.3	123.7
85°	171.8	165.9	190.6	169.4	151.3	93.8	87.9	105.0	111.4	113.2	63.9
87.5°	103.2	103.2	110.2	90.9	81.5	48.7	47.5	59.8	63.9	61.0	35.2
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°	3307.4	3307.4	3307.4	3307.4	3307.4	3307.4	3307.4	3307.4	3307.4	3307.4	3307.4
2.5°	3316.2	3274.6	3186.1	3115.1	3025.4	2932.2	2880.0	2824.3	2786.2	2758.6	2802.6
5°	3341.5	3256.4	3073.5	2900.0	2708.2	2508.9	2357.6	2216.9	2119.0	2058.0	2115.5
7.5°	3381.3	3250.6	2959.2	2662.5	2318.3	1986.5	1689.8	1503.9	1395.4	1342.1	1375.5
10°	3427.1	3241.2	2824.9	2340.6	1848.1	1430.0	1208.4	1133.4	1108.7	1098.8	1103.5
12.5°	3465.2	3221.3	2660.1	1951.3	1387.8	1129.3	1065.3	1063.6	1068.9	1070.0	1071.8
15°	3492.1	3191.9	2415.7	1545.5	1109.9	1029.0	1025.5	1036.0	1046.0	1050.1	1052.4
17.5°	3510.3	3131.6	2139.5	1221.9	994.4	980.3	988.5	1002.0	1012.6	1015.5	1017.9
20°	3508.6	3043.0	1810.6	1019.0	931.7	931.7	945.7	956.3	956.9	953.4	955.1
22.5°	3490.4	2921.6	1491.6	911.1	876.0	885.9	900.0	890.0	849.0	822.0	823.8
25°	3459.9	2776.8	1218.4	842.5	824.4	842.0	837.9	762.8	704.2	677.8	677.8
27.5°	3432.9	2605.6	1008.5	782.7	772.8	794.5	721.8	653.8	629.1	616.8	612.7
30°	3413.6	2420.9	868.3	725.3	724.1	708.3	626.2	607.4	603.3	593.4	589.8
32.5°	3418.3	2233.9	778.6	674.9	679.0	606.3	580.5	584.6	581.0	570.5	565.8
35°	3457.0	2056.2	720.0	629.1	616.8	547.6	553.5	561.1	559.9	545.3	540.6
37.5°	3526.1	1888.0	681.3	591.0	538.2	518.3	527.7	539.4	536.5	526.5	523.0
40°	3598.9	1729.7	649.6	561.1	491.9	498.4	506.6	513.0	516.0	518.9	516.6
42.5°	3669.8	1564.3	610.9	530.6	472.6	479.6	483.1	489.6	505.4	516.6	516.0
45°	3712.0	1408.9	571.1	487.2	457.3	461.4	459.1	472.0	491.3	509.5	510.1
47.5°	3758.9	1288.2	539.4	447.4	442.7	445.6	438.6	451.5	469.1	491.3	493.7
50°	3815.8	1216.0	514.2	415.7	422.7	422.7	421.0	432.7	457.3	483.1	487.8
52.5°	3880.3	1202.0	493.1	392.8	402.8	402.2	404.0	421.6	448.5	473.7	477.9
55°	3958.9	1240.1	470.2	375.8	383.5	385.8	391.7	411.6	434.5	463.2	465.0
57.5°	4050.3	1317.5	452.1	362.3	365.9	373.5	382.9	401.0	425.7	457.3	459.1
58°	4065.6	1333.9	449.1	361.2	362.3	371.1	381.7	399.3	423.9	458.5	460.3
60°	4066.1	1388.4	442.7	355.9	348.9	363.5	375.2	392.8	421.0	462.6	466.7
62.5°	3921.9	1387.8	438.0	348.3	334.8	353.0	366.5	387.0	418.0	472.6	480.8
65°	3453.4	1261.2	415.7	336.5	323.7	343.6	358.8	382.9	426.3	516.0	521.2
67.5°	2701.2	1033.7	374.1	320.1	309.0	334.2	354.1	382.3	435.1	525.9	529.4
70°	1785.9	773.4	328.3	301.4	293.7	323.1	356.5	402.2	425.1	504.8	495.4
72.5°	927.0	542.9	291.4	277.9	276.2	313.1	390.5	399.9	415.1	474.9	463.2
75°	486.6	377.0	259.2	252.1	255.1	310.8	460.8	389.3	402.2	454.4	476.7
77.5°	297.9	304.3	231.6	228.7	234.5	303.7	460.3	375.8	383.5	418.0	442.7
80°	199.3	246.8	210.5	211.1	215.2	277.9	413.4	354.7	360.6	395.2	420.4
82.5°	126.1	146.0	191.1	201.1	195.8	229.3	351.2	323.1	331.3	452.1	477.9
85°	63.9	91.5	165.9	193.5	176.5	160.7	285.0	283.2	287.3	326.0	340.7
87.5°	29.3	50.4	129.6	168.9	133.1	100.3	207.0	209.9	226.3	231.6	231.6
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)