

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: P300433

Luminaire Tested: **GLNA-AF-04-LED-E1-AFL-7027-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P300433  
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-04-LED-E1-AFL-7027-600  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive Frontline OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14051.1 lumens  
Efficiency: N/A  
Efficacy: 108.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B2 - U0 - G2

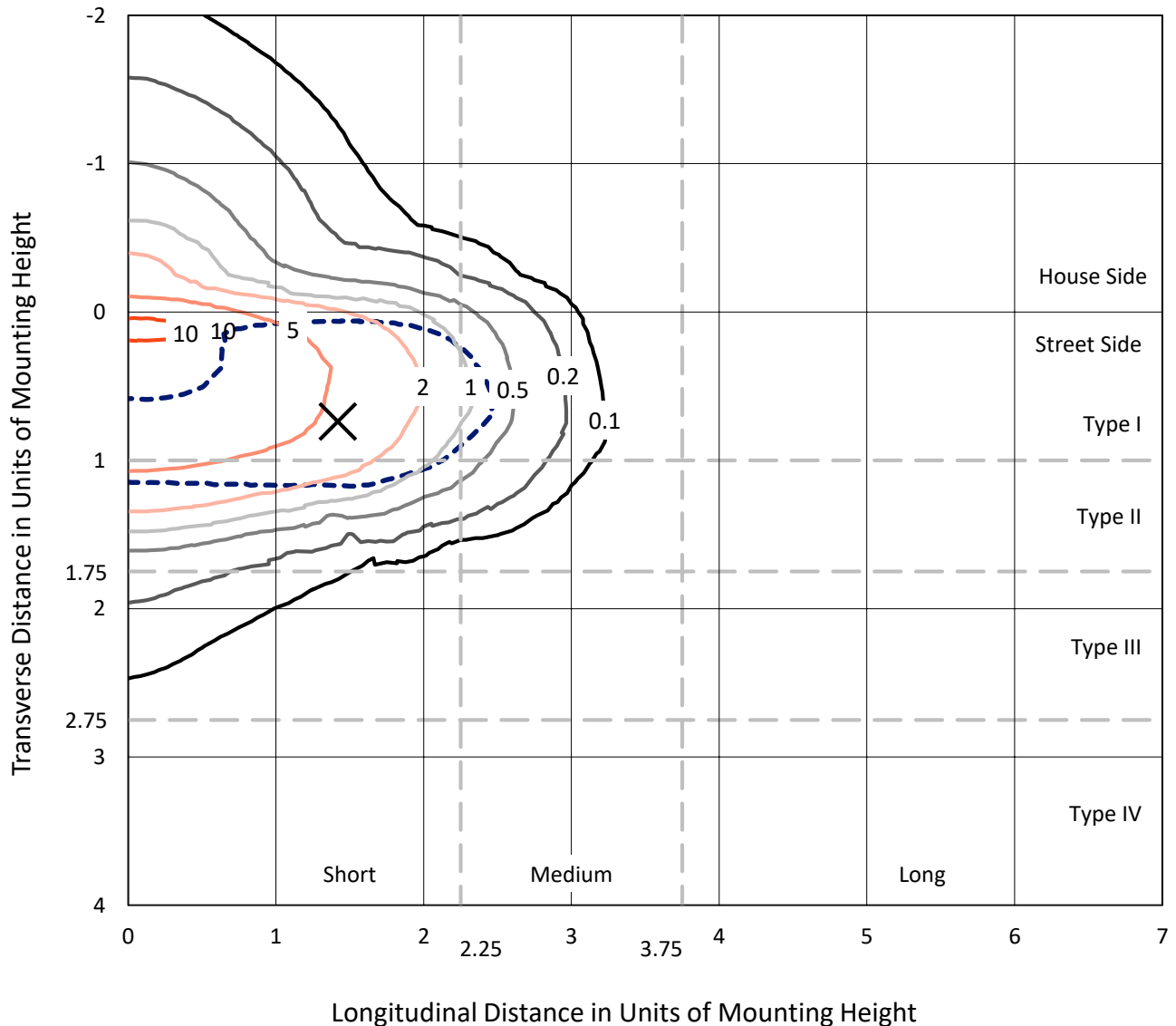
Input Watts (W): 129  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

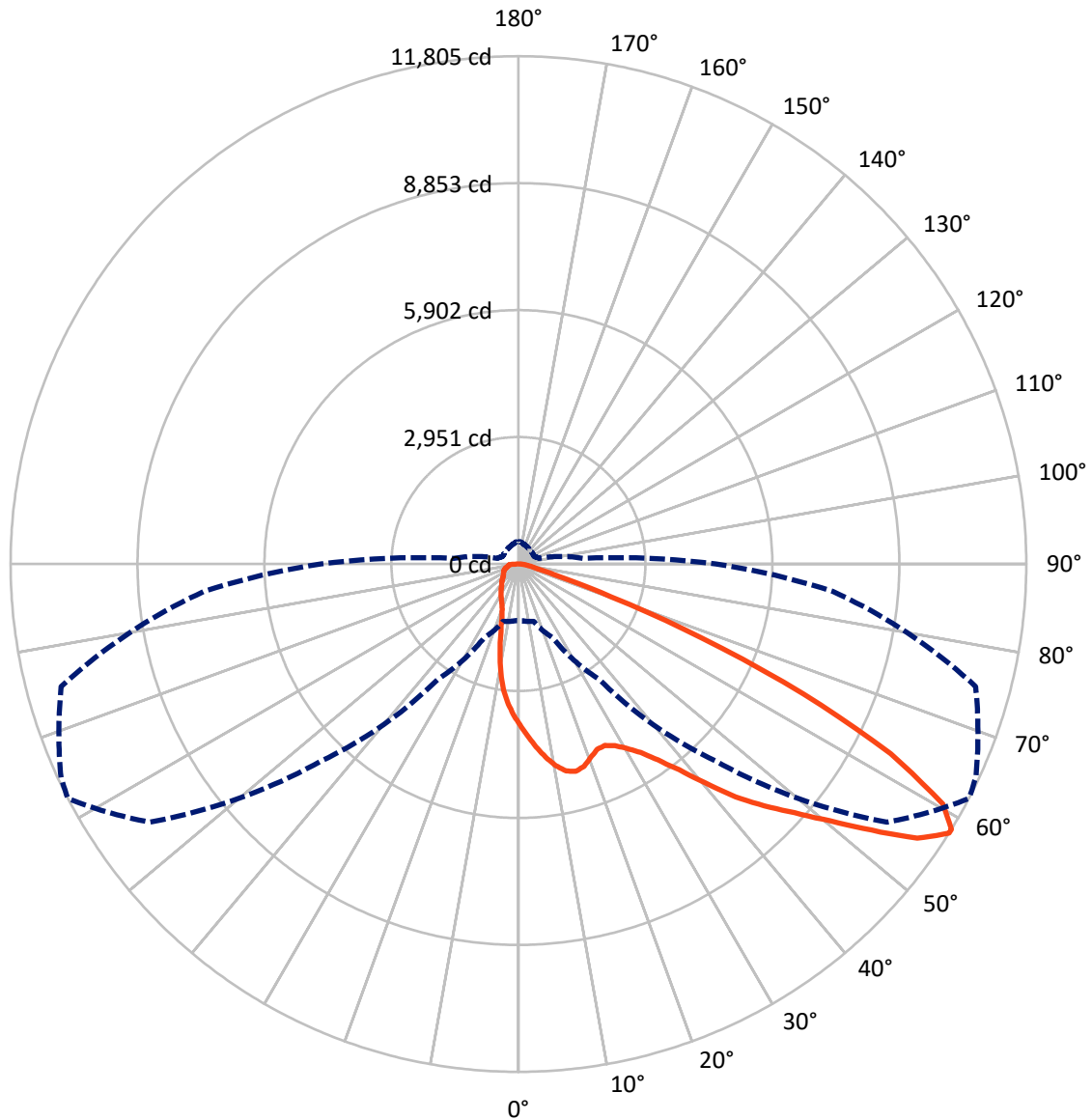
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 11.4 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	2142.9	0.0	2142.9
	% Fixture	15.3	0.0	15.3
<b>Street Side</b>	Lumens	11908.3	0.0	11908.3
	% Fixture	84.7	0.0	84.7
<b>Total</b>	Lumens	14051.1	0.0	14051.1
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	333.8	2.4
10°-20°	853.3	6.1
20°-30°	1379.3	9.8
30°-40°	2189.7	15.6
40°-50°	3204.0	22.8
50°-60°	3351.1	23.8
60°-70°	1979.8	14.1
70°-80°	557.7	4.0
80°-90°	202.5	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°	14051.1	100.0
0°-180°	14051.1	100.0

**Coefficient of Utilization**



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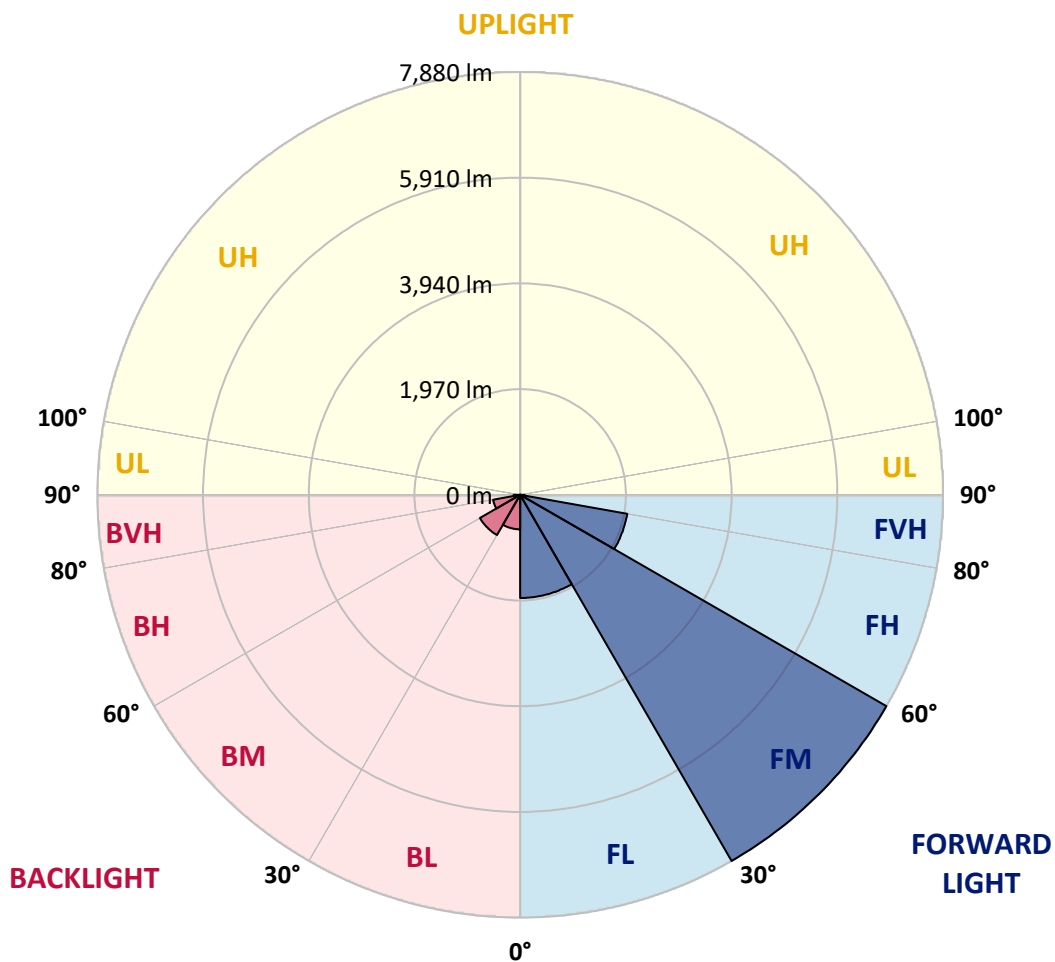
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1922.4	13.7			
FM	(30°-60°)	7879.8	56.1			
FH	(60°-80°)	2026.2	14.4			G2/5000
FVH	(80°-90°)	79.9	0.6			G1/100
BL	(0°-30°)	644.0	4.6	B2/1000		
BM	(30°-60°)	864.9	6.2	B1/1000		
BH	(60°-80°)	511.3	3.6	B2/1000		G2/1000
BVH	(80°-90°)	122.6	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°	3732.4	3732.4	3732.4	3732.4	3732.4	3732.4	3732.4	3732.4	3732.4	3732.4	3732.4
2.5°	4265.0	4230.6	4208.8	4189.6	4164.5	4110.9	4038.7	3993.1	3969.9	3891.2	3797.9
5°	4683.2	4652.8	4630.3	4604.5	4559.5	4475.4	4359.0	4266.4	4220.7	4063.2	3876.6
7.5°	4585.3	4597.8	4636.9	4705.0	4763.3	4752.0	4648.1	4530.4	4470.1	4251.1	3968.0
10°	3995.1	4016.9	4084.4	4243.9	4501.9	4766.6	4847.3	4765.9	4705.0	4437.1	4061.9
12.5°	3876.6	3876.0	3881.3	3923.6	4077.1	4449.6	4853.9	4936.0	4899.6	4614.4	4157.8
15°	3924.9	3926.3	3922.3	3940.2	3987.8	4135.3	4651.4	5001.5	5027.3	4793.0	4257.1
17.5°	4052.0	4048.7	4033.5	4033.5	4050.7	4108.2	4413.2	4940.6	5059.7	4951.2	4344.4
20°	4265.0	4249.8	4209.5	4172.4	4153.9	4185.0	4315.3	4800.3	5003.4	5089.5	4416.6
22.5°	4523.1	4511.2	4445.7	4366.3	4302.1	4301.4	4365.6	4677.9	4906.2	5219.8	4477.4
25°	4856.6	4837.4	4740.1	4613.1	4500.6	4457.6	4475.4	4672.0	4853.2	5361.4	4531.7
27.5°	5248.3	5213.2	5098.1	4914.8	4749.4	4662.7	4636.9	4779.8	4901.5	5536.7	4607.1
30°	5723.3	5683.0	5535.4	5296.6	5063.0	4920.7	4865.8	4971.0	5061.7	5750.5	4728.2
32.5°	6263.9	6205.7	6035.0	5771.6	5464.6	5247.6	5158.3	5223.8	5295.9	6007.8	4879.7
35°	7010.9	6941.4	6694.6	6331.4	5984.7	5686.3	5543.4	5591.0	5661.1	6391.6	5098.7
37.5°	7520.4	7489.3	7325.2	6983.8	6606.6	6263.2	6042.2	6070.0	6109.7	6871.3	5379.3
40°	7515.8	7528.3	7531.6	7534.9	7278.2	6949.4	6711.8	6682.7	6674.8	7398.0	5698.2
42.5°	7139.3	7190.9	7357.6	7695.7	7851.9	7701.0	7483.3	7399.3	7357.6	8018.6	6036.3
45°	6563.0	6590.8	6903.1	7563.4	8145.6	8445.4	8280.6	8016.0	7940.5	8589.0	6316.8
47.5°	6265.9	6296.3	6492.8	7212.7	8142.3	9046.8	9142.1	8637.9	8502.9	9085.2	6559.0
50°	5558.6	5622.1	5869.5	6602.7	7845.3	9323.4	10042.6	9379.0	9099.8	9568.2	6801.8
52.5°	4259.7	4357.7	4634.9	5599.6	7091.6	9186.4	10763.2	10277.5	9883.2	10068.4	7010.2
55°	2687.0	2759.8	2992.7	3954.7	5673.0	8473.8	11036.4	11249.5	10898.8	10542.2	7190.9
57.5°	1460.9	1493.4	1580.7	2183.5	3690.1	6898.4	10638.1	11802.6	11657.1	10944.5	7327.2
58°	1307.4	1329.3	1383.5	1892.3	3272.6	6467.7	10461.4	11804.6	11731.8	11003.3	7337.8
60°	970.0	958.7	910.4	1079.8	1821.5	4468.2	9393.5	11332.2	11545.9	11075.5	7286.2
62.5°	852.2	825.1	726.5	715.3	886.0	2058.4	7187.6	9707.2	10212.0	10663.9	6972.5
65°	800.6	771.5	644.5	603.4	639.2	870.7	4233.9	7280.2	7913.4	9416.0	6170.6
67.5°	762.2	724.5	592.2	535.9	538.6	575.6	1697.1	4585.3	5297.9	7149.2	4799.7
70°	725.2	684.2	547.9	483.0	467.8	455.2	674.9	2295.3	2941.7	4515.8	3060.2
72.5°	685.5	645.1	508.8	441.3	411.6	369.9	440.7	938.9	1311.4	2136.5	1388.2
75°	627.9	591.5	469.8	404.3	361.9	306.3	332.8	490.3	588.2	850.9	668.9
77.5°	557.1	527.3	426.1	373.8	320.9	248.8	256.1	340.1	377.1	487.0	397.7
80°	400.3	410.9	379.1	336.1	285.8	201.8	196.5	248.1	268.0	313.0	258.7
82.5°	281.2	287.2	313.6	274.6	236.2	158.8	144.9	174.7	186.6	205.8	139.6
85°	193.9	187.2	215.0	191.2	170.7	105.9	99.2	118.4	125.7	127.7	72.1
87.5°	116.5	116.5	124.4	102.6	92.0	54.9	53.6	67.5	72.1	68.8	39.7
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°	3732.4	3732.4	3732.4	3732.4	3732.4	3732.4	3732.4	3732.4	3732.4	3732.4	3732.4
2.5°	3742.3	3695.3	3595.4	3515.4	3414.1	3308.9	3250.1	3187.2	3144.2	3113.1	3162.7
5°	3770.8	3674.8	3468.4	3272.6	3056.2	2831.2	2660.5	2501.7	2391.2	2322.4	2387.3
7.5°	3815.8	3668.2	3339.4	3004.6	2616.2	2241.7	1906.9	1697.1	1574.7	1514.5	1552.2
10°	3867.4	3657.6	3187.9	2641.3	2085.5	1613.8	1363.7	1279.0	1251.2	1239.9	1245.2
12.5°	3910.4	3635.1	3001.9	2202.0	1566.1	1274.3	1202.2	1200.2	1206.2	1207.5	1209.5
15°	3940.8	3602.1	2726.0	1744.1	1252.5	1161.2	1157.2	1169.1	1180.4	1185.0	1187.7
17.5°	3961.3	3533.9	2414.4	1378.9	1122.2	1106.3	1115.6	1130.8	1142.7	1146.0	1148.6
20°	3959.3	3434.0	2043.2	1150.0	1051.4	1051.4	1067.3	1079.2	1079.8	1075.9	1077.8
22.5°	3938.8	3297.0	1683.3	1028.2	988.5	999.8	1015.6	1004.4	958.1	927.6	929.6
25°	3904.4	3133.6	1374.9	950.8	930.3	950.1	945.5	860.8	794.6	764.9	764.9
27.5°	3874.0	2940.4	1138.0	883.3	872.1	896.5	814.5	737.7	710.0	696.1	691.4
30°	3852.2	2732.0	979.9	818.5	817.1	799.3	706.6	685.5	680.8	669.6	665.6
32.5°	3857.5	2520.9	878.7	761.6	766.2	684.2	655.0	659.7	655.7	643.8	638.5
35°	3901.1	2320.4	812.5	710.0	696.1	618.0	624.6	633.2	631.9	615.3	610.0
37.5°	3979.2	2130.5	768.8	666.9	607.4	584.9	595.5	608.7	605.4	594.2	590.2
40°	4061.2	1951.9	733.1	633.2	555.1	562.4	571.7	578.9	582.3	585.6	582.9
42.5°	4141.3	1765.3	689.4	598.8	533.3	541.2	545.2	552.5	570.3	582.9	582.3
45°	4188.9	1590.0	644.5	549.8	516.1	520.7	518.1	532.6	554.5	575.0	575.6
47.5°	4241.9	1453.7	608.7	504.8	499.6	502.9	494.9	509.5	529.3	554.5	557.1
50°	4306.1	1372.3	580.3	469.1	477.1	477.1	475.1	488.3	516.1	545.2	550.5
52.5°	4378.8	1356.4	556.5	443.3	454.6	453.9	455.9	475.7	506.2	534.6	539.2
55°	4467.5	1399.4	530.6	424.1	432.7	435.4	442.0	464.5	490.3	522.7	524.7
57.5°	4570.7	1486.7	510.1	408.9	412.9	421.5	432.1	452.6	480.4	516.1	518.1
58°	4587.9	1505.3	506.8	407.6	408.9	418.8	430.7	450.6	478.4	517.4	519.4
60°	4588.6	1566.8	499.6	401.6	393.7	410.2	423.5	443.3	475.1	522.0	526.7
62.5°	4425.8	1566.1	494.3	393.0	377.8	398.3	413.5	436.7	471.8	533.3	542.6
65°	3897.2	1423.2	469.1	379.8	365.2	387.7	404.9	432.1	481.0	582.3	588.2
67.5°	3048.2	1166.5	422.1	361.3	348.7	377.1	399.6	431.4	490.9	593.5	597.5
70°	2015.4	872.7	370.5	340.1	331.5	364.6	402.3	453.9	479.7	569.7	559.1
72.5°	1046.1	612.7	328.8	313.6	311.6	353.3	440.7	451.2	468.5	535.9	522.7
75°	549.2	425.4	292.5	284.5	287.8	350.7	520.1	439.3	453.9	512.8	537.9
77.5°	336.1	343.4	261.4	258.0	264.7	342.7	519.4	424.1	432.7	471.8	499.6
80°	225.0	278.6	237.5	238.2	242.8	313.6	466.5	400.3	406.9	446.0	474.4
82.5°	142.3	164.8	215.7	226.9	221.0	258.7	396.3	364.6	373.8	510.1	539.2
85°	72.1	103.2	187.2	218.3	199.2	181.3	321.6	319.6	324.2	367.9	384.4
87.5°	33.1	56.9	146.2	190.6	150.2	113.1	233.6	236.9	255.4	261.4	261.4
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)