

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: P300370

Luminaire Tested: **GLNA-AF-03-LED-E1-AFL-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P300370  
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-03-LED-E1-AFL-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(3) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Automotive Frontline OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 15010.1 lumens  
Efficiency: N/A  
Efficacy: 121.0 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

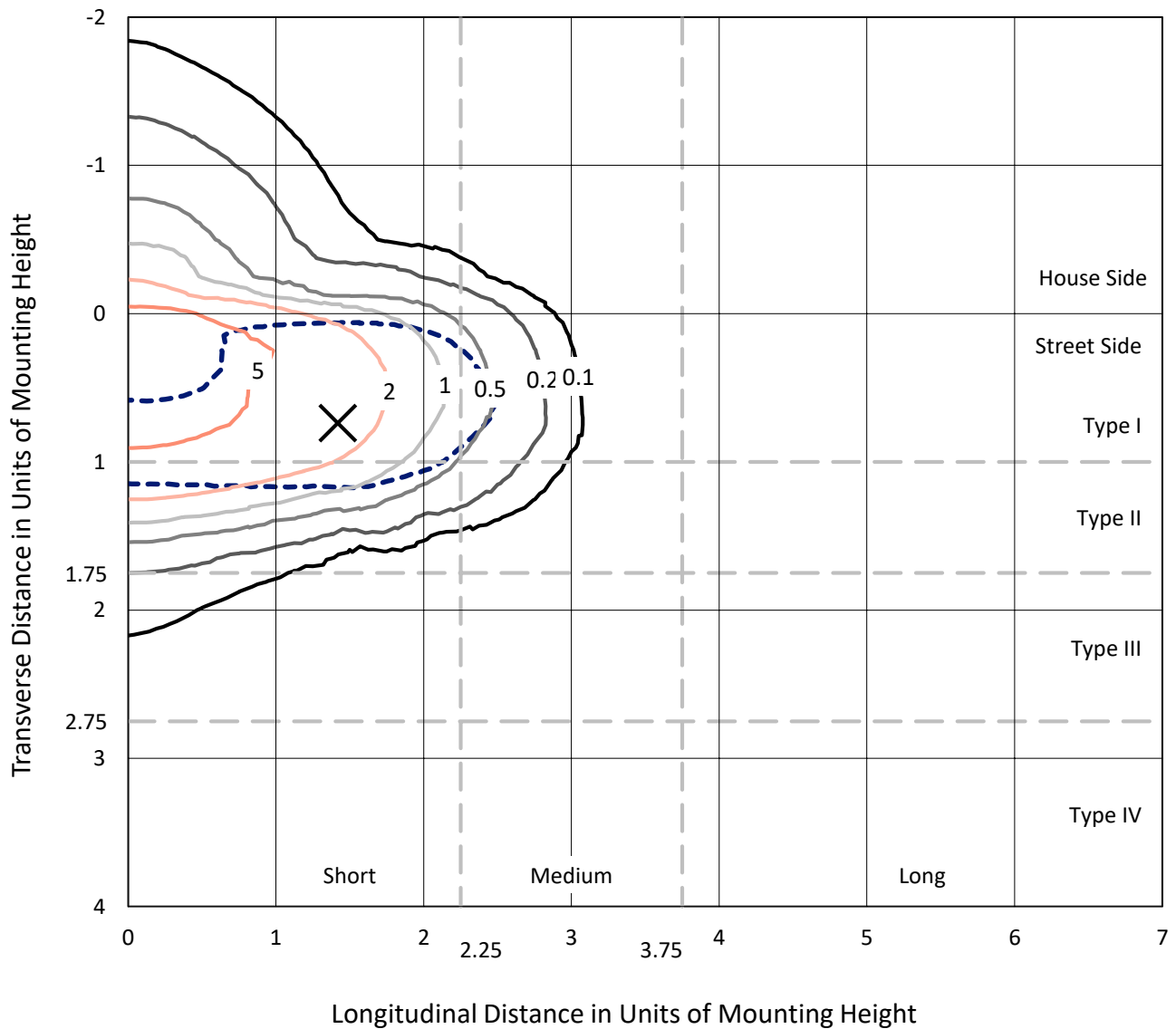
Input Watts (W): 124  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

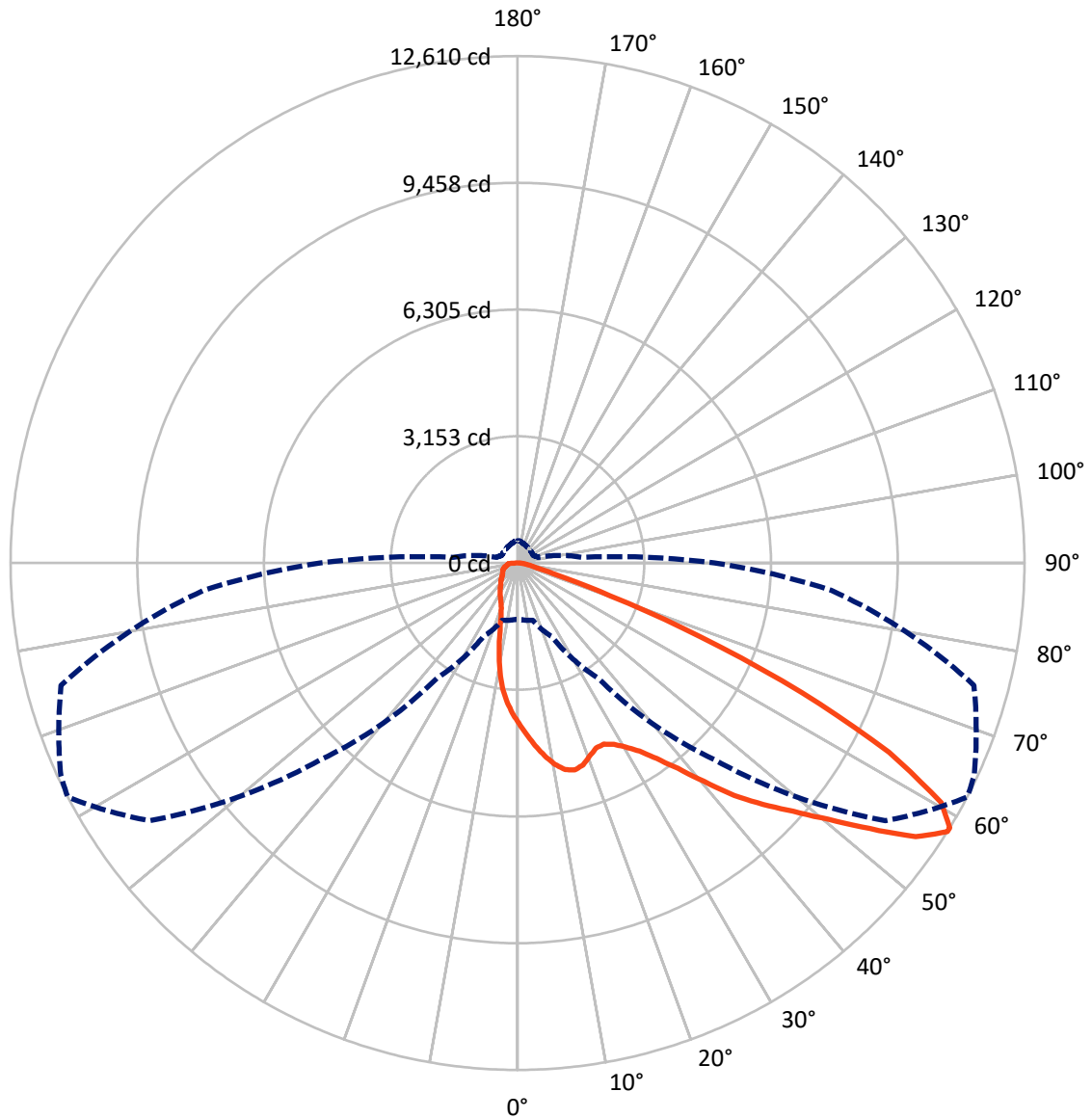
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.8 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	2289.1	0.0	2289.1
	% Fixture	15.3	0.0	15.3
<b>Street Side</b>	Lumens	12721.0	0.0	12721.0
	% Fixture	84.7	0.0	84.7
<b>Total</b>	Lumens	15010.1	0.0	15010.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	356.6	2.4
10°-20°	911.5	6.1
20°-30°	1473.5	9.8
30°-40°	2339.1	15.6
40°-50°	3422.6	22.8
50°-60°	3579.8	23.8
60°-70°	2114.9	14.1
70°-80°	595.8	4.0
80°-90°	216.3	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°	15010.1	100.0
0°-180°	15010.1	100.0



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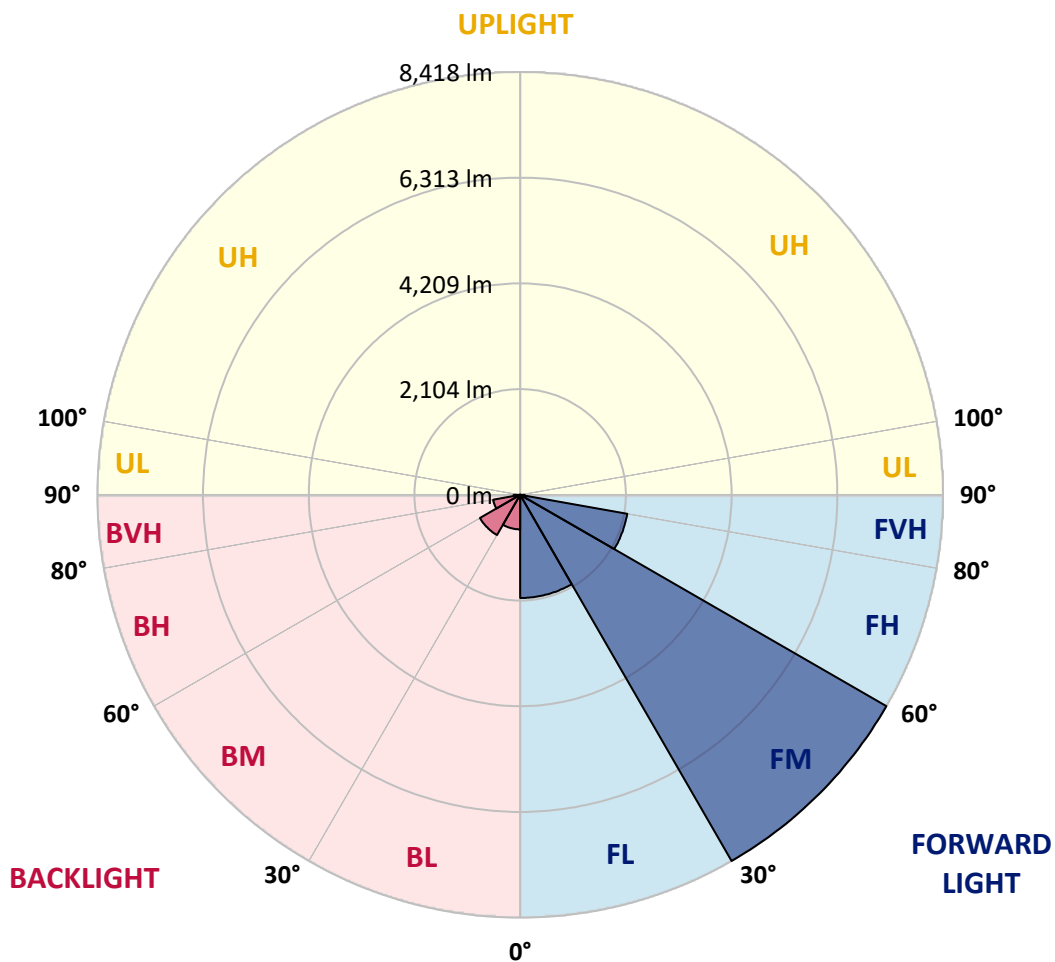
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2053.6	13.7			
FM	(30°-60°)	8417.6	56.1			
FH	(60°-80°)	2164.5	14.4			G2/5000
FVH	(80°-90°)	85.3	0.6			G1/100
BL	(0°-30°)	688.0	4.6	B2/1000		
BM	(30°-60°)	923.9	6.2	B1/1000		
BH	(60°-80°)	546.2	3.6	B2/1000		G2/1000
BVH	(80°-90°)	131.0	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°	3987.1	3987.1	3987.1	3987.1	3987.1	3987.1	3987.1	3987.1	3987.1	3987.1	3987.1
2.5°	4556.1	4519.4	4496.0	4475.5	4448.7	4391.4	4314.4	4265.6	4240.9	4156.8	4057.1
5°	5002.8	4970.3	4946.3	4918.7	4870.6	4780.9	4656.5	4557.5	4508.8	4340.5	4141.2
7.5°	4898.2	4911.6	4953.3	5026.1	5088.3	5076.3	4965.4	4839.5	4775.2	4541.3	4238.8
10°	4267.7	4291.1	4363.2	4533.5	4809.2	5091.9	5178.1	5091.2	5026.1	4739.9	4339.1
12.5°	4141.2	4140.5	4146.2	4191.4	4355.4	4753.3	5185.2	5272.8	5233.9	4929.3	4441.6
15°	4192.8	4194.2	4190.0	4209.1	4260.0	4417.6	4968.9	5342.8	5370.4	5120.2	4547.6
17.5°	4328.5	4325.0	4308.7	4308.7	4327.1	4388.6	4714.4	5277.8	5405.0	5289.1	4640.9
20°	4556.1	4539.9	4496.7	4457.2	4437.4	4470.6	4609.8	5127.9	5344.9	5436.8	4718.0
22.5°	4831.8	4819.1	4749.1	4664.3	4595.7	4595.0	4663.6	4997.2	5241.0	5576.0	4783.0
25°	5188.0	5167.5	5063.6	4927.9	4807.7	4761.8	4780.9	4990.8	5184.5	5727.3	4841.0
27.5°	5606.4	5569.0	5446.0	5250.2	5073.5	4980.9	4953.3	5106.0	5236.1	5914.6	4921.5
30°	6113.9	6070.8	5913.2	5658.0	5408.5	5256.6	5197.9	5310.3	5407.1	6142.9	5050.9
32.5°	6691.4	6629.2	6446.8	6165.5	5837.6	5605.7	5510.3	5580.3	5657.3	6417.9	5212.7
35°	7489.4	7415.2	7151.5	6763.5	6393.1	6074.3	5921.7	5972.6	6047.5	6827.8	5446.7
37.5°	8033.6	8000.4	7825.1	7460.4	7057.5	6690.7	6454.6	6484.3	6526.7	7340.3	5746.4
40°	8028.7	8042.1	8045.7	8049.2	7774.9	7423.7	7169.9	7138.8	7130.3	7902.9	6087.1
42.5°	7626.5	7681.6	7859.8	8220.9	8387.7	8226.6	7994.1	7904.3	7859.8	8565.9	6448.3
45°	7010.9	7040.6	7374.2	8079.6	8701.6	9021.8	8845.8	8563.0	8482.5	9175.1	6747.9
47.5°	6693.5	6726.0	6936.0	7705.0	8698.0	9664.3	9766.0	9227.4	9083.3	9705.2	7006.6
50°	5937.9	6005.8	6270.1	7053.3	8380.7	9959.7	10728.0	10019.1	9720.8	10221.2	7266.0
52.5°	4550.5	4655.1	4951.2	5981.8	7575.6	9813.4	11497.7	10978.9	10557.7	10755.6	7488.7
55°	2870.4	2948.1	3196.9	4224.6	6060.2	9052.2	11789.6	12017.2	11642.6	11261.6	7681.6
57.5°	1560.6	1595.3	1688.6	2332.5	3941.9	7369.2	11364.1	12608.1	12452.6	11691.4	7827.2
58°	1396.7	1420.0	1477.9	2021.5	3495.9	6909.1	11175.4	12610.2	12532.5	11754.3	7838.6
60°	1036.2	1024.2	972.6	1153.5	1945.9	4773.1	10034.6	12105.6	12333.9	11831.3	7783.4
62.5°	910.4	881.4	776.1	764.1	946.4	2198.9	7678.1	10369.7	10908.9	11391.7	7448.4
65°	855.2	824.1	688.4	644.6	682.8	930.2	4522.9	7777.1	8453.5	10058.7	6591.7
67.5°	814.2	774.0	632.6	572.5	575.3	614.9	1813.0	4898.2	5659.5	7637.1	5127.2
70°	774.7	730.8	585.2	516.0	499.7	486.3	720.9	2451.9	3142.5	4824.0	3269.0
72.5°	732.3	689.1	543.5	471.4	439.6	395.1	470.7	1003.0	1400.9	2282.3	1482.9
75°	670.8	631.9	501.8	431.9	386.6	327.3	355.5	523.7	628.4	909.0	714.6
77.5°	595.1	563.3	455.2	399.3	342.8	265.8	273.5	363.3	402.9	520.2	424.8
80°	427.6	438.9	405.0	359.1	305.3	215.6	209.9	265.1	286.3	334.3	276.4
82.5°	300.4	306.8	335.0	293.3	252.3	169.6	154.8	186.6	199.3	219.8	149.1
85°	207.1	200.0	229.7	204.3	182.4	113.1	106.0	126.5	134.3	136.4	77.0
87.5°	124.4	124.4	132.9	109.6	98.2	58.7	57.3	72.1	77.0	73.5	42.4
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°	3987.1	3987.1	3987.1	3987.1	3987.1	3987.1	3987.1	3987.1	3987.1	3987.1	3987.1
2.5°	3997.7	3947.5	3840.8	3755.3	3647.2	3534.8	3471.9	3404.7	3358.8	3325.6	3378.6
5°	4028.1	3925.6	3705.1	3495.9	3264.8	3024.5	2842.1	2672.5	2554.4	2480.9	2550.2
7.5°	4076.2	3918.6	3567.3	3209.6	2794.7	2394.7	2037.0	1813.0	1682.2	1617.9	1658.2
10°	4131.3	3907.3	3405.4	2821.6	2227.9	1723.9	1456.7	1366.3	1336.6	1324.6	1330.2
12.5°	4177.3	3883.2	3206.8	2352.3	1673.0	1361.3	1284.3	1282.2	1288.5	1289.9	1292.1
15°	4209.8	3847.9	2912.1	1863.2	1338.0	1240.5	1236.2	1248.9	1261.0	1265.9	1268.7
17.5°	4231.7	3775.1	2579.2	1473.0	1198.8	1181.8	1191.7	1207.9	1220.7	1224.2	1227.0
20°	4229.6	3668.4	2182.6	1228.4	1123.1	1123.1	1140.1	1152.8	1153.5	1149.3	1151.4
22.5°	4207.7	3522.0	1798.1	1098.4	1056.0	1068.0	1085.0	1072.9	1023.5	991.0	993.1
25°	4170.9	3347.5	1468.8	1015.7	993.8	1015.0	1010.0	919.6	848.9	817.1	817.1
27.5°	4138.4	3141.1	1215.7	943.6	931.6	957.7	870.1	788.1	758.4	743.6	738.6
30°	4115.1	2918.4	1046.8	874.3	872.9	853.8	754.9	732.3	727.3	715.3	711.1
32.5°	4120.7	2693.0	938.6	813.5	818.5	730.8	699.7	704.7	700.5	687.7	682.1
35°	4167.4	2478.8	868.0	758.4	743.6	660.2	667.2	676.4	675.0	657.3	651.7
37.5°	4250.8	2275.9	821.3	712.5	648.9	624.8	636.1	650.3	646.7	634.7	630.5
40°	4338.4	2085.1	783.1	676.4	593.0	600.8	610.7	618.5	622.0	625.5	622.7
42.5°	4423.9	1885.8	736.5	639.7	569.7	578.2	582.4	590.2	609.3	622.7	622.0
45°	4474.8	1698.5	688.4	587.4	551.3	556.3	553.4	569.0	592.3	614.2	614.9
47.5°	4531.4	1552.9	650.3	539.3	533.6	537.2	528.7	544.2	565.5	592.3	595.1
50°	4599.9	1465.9	619.9	501.1	509.6	509.6	507.5	521.6	551.3	582.4	588.1
52.5°	4677.7	1449.0	594.4	473.6	485.6	484.9	487.0	508.2	540.7	571.1	576.1
55°	4772.4	1494.9	566.9	453.1	462.3	465.1	472.2	496.2	523.7	558.4	560.5
57.5°	4882.7	1588.2	545.0	436.8	441.1	450.2	461.5	483.5	513.1	551.3	553.4
58°	4901.0	1608.0	541.4	435.4	436.8	447.4	460.1	481.3	511.0	552.7	554.8
60°	4901.7	1673.7	533.6	429.0	420.6	438.2	452.4	473.6	507.5	557.7	562.6
62.5°	4727.9	1673.0	528.0	419.8	403.6	425.5	441.8	466.5	504.0	569.7	579.6
65°	4163.1	1520.4	501.1	405.7	390.2	414.2	432.6	461.5	513.9	622.0	628.4
67.5°	3256.3	1246.1	450.9	385.9	372.5	402.9	426.9	460.8	524.5	634.0	638.3
70°	2153.0	932.3	395.8	363.3	354.1	389.5	429.7	484.9	512.4	608.6	597.3
72.5°	1117.5	654.5	351.3	335.0	332.9	377.4	470.7	482.0	500.4	572.5	558.4
75°	586.7	454.5	312.4	303.9	307.5	374.6	555.6	469.3	484.9	547.8	574.6
77.5°	359.1	366.8	279.2	275.7	282.7	366.1	554.8	453.1	462.3	504.0	533.6
80°	240.3	297.6	253.7	254.5	259.4	335.0	498.3	427.6	434.7	476.4	506.8
82.5°	152.0	176.0	230.4	242.4	236.1	276.4	423.4	389.5	399.3	545.0	576.1
85°	77.0	110.3	200.0	233.2	212.8	193.7	343.5	341.4	346.3	393.0	410.7
87.5°	35.3	60.8	156.2	203.6	160.4	120.9	249.5	253.0	272.8	279.2	279.2
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)