

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: P299119

Luminaire Tested: **GLNA-AF-05-LED-E1-SL2-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299119  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24286)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-05-LED-E1-SL2-7027  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V  
Narrow OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

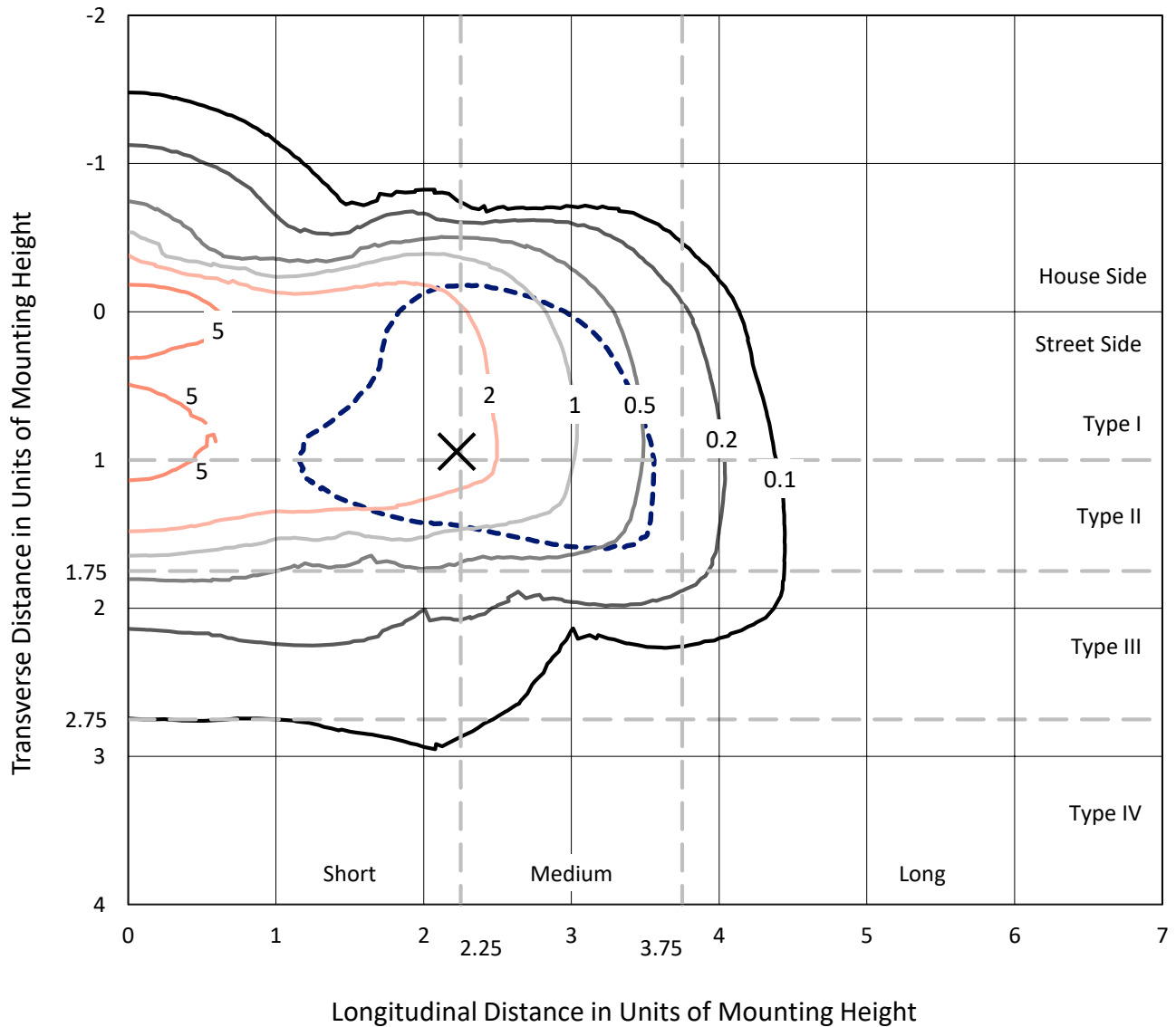
Lumens per Lamp: N/A  
Luminaire Lumens: 25234.3 lumens  
Efficiency: N/A  
Efficacy: 90.4 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type II - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G4  
  
Input Watts (W): 279  
Input Voltage (V): NR  
Input Current (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

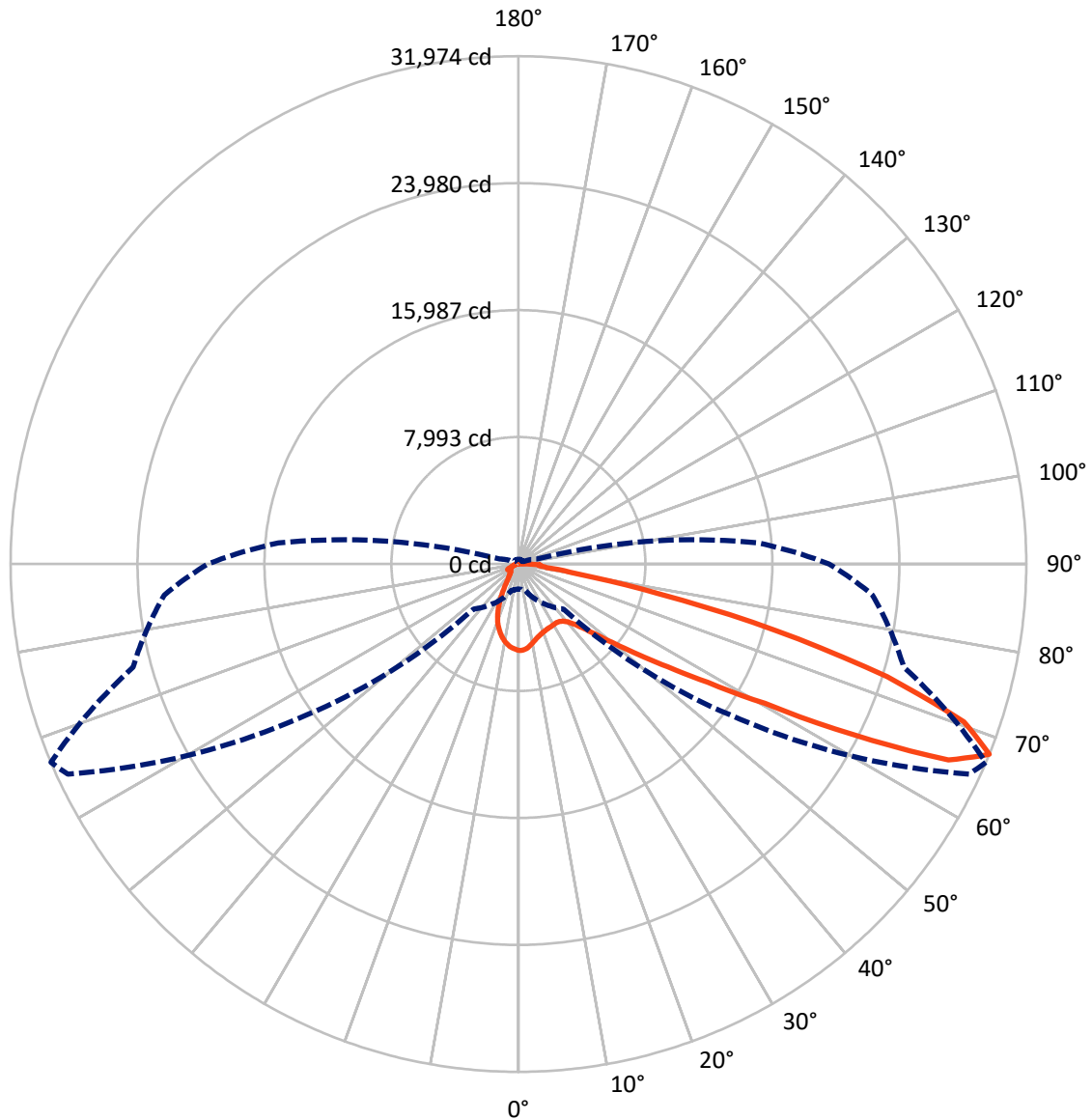
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.7 fc  
 Type II - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4181.1	0.0	4181.1
	% Fixture	16.6	0.0	16.6
<b>Street Side</b>	Lumens	21053.3	0.0	21053.3
	% Fixture	83.4	0.0	83.4
<b>Total</b>	Lumens	25234.3	0.0	25234.3
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	464.4	1.8
10°-20°	1074.5	4.3
20°-30°	1456.5	5.8
30°-40°	2070.5	8.2
40°-50°	3464.1	13.7
50°-60°	5480.1	21.7
60°-70°	6981.1	27.7
70°-80°	3656.7	14.5
80°-90°	586.5	2.3
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°	25234.3	100.0
0°-180°	25234.3	100.0



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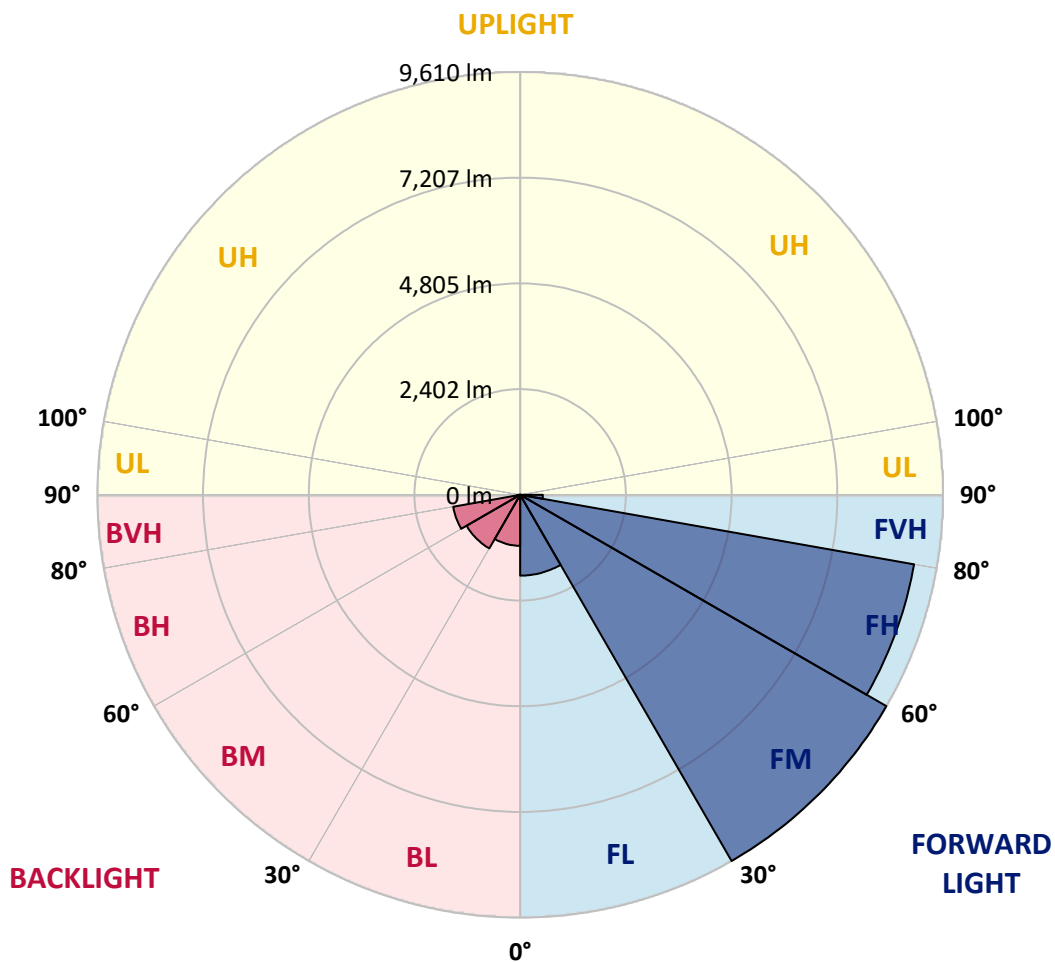
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1836.4	7.3			
FM	(30°-60°)	9609.8	38.1			
FH	(60°-80°)	9091.4	36.0			G4/12000
FVH	(80°-90°)	515.7	2.0			G4/750
BL	(0°-30°)	1158.9	4.6	B3/2500		
BM	(30°-60°)	1405.0	5.6	B2/2500		
BH	(60°-80°)	1546.4	6.1	B3/2500		G3/2500
BVH	(80°-90°)	70.8	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G4**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	5443.0	5443.0	5443.0	5443.0	5443.0	5443.0	5443.0	5443.0	5443.0	5443.0	5443.0
2.5°	5219.0	5227.7	5255.1	5272.5	5350.9	5384.5	5408.1	5431.8	5435.5	5446.7	5435.5
5°	4671.5	4690.1	4741.1	4798.4	4950.2	5069.7	5195.4	5326.0	5349.7	5434.3	5457.9
7.5°	4247.1	4242.1	4284.5	4352.9	4508.4	4673.9	4894.2	5154.3	5205.3	5395.7	5487.8
10°	3937.3	3933.5	3978.3	4049.3	4197.3	4354.1	4603.0	4958.9	5031.1	5334.7	5516.4
12.5°	3708.3	3709.5	3754.3	3832.7	3983.3	4141.3	4394.0	4769.8	4861.9	5263.8	5546.3
15°	3556.5	3566.4	3602.5	3685.9	3832.7	3990.8	4238.4	4627.9	4731.2	5207.8	5579.9
17.5°	3505.5	3521.6	3534.1	3595.1	3720.7	3878.8	4121.4	4523.4	4632.9	5169.2	5609.7
20°	3552.7	3571.4	3547.8	3568.9	3648.6	3787.9	4029.4	4441.2	4553.2	5125.7	5613.5
22.5°	3755.6	3773.0	3703.3	3642.3	3637.4	3722.0	3953.4	4376.5	4492.3	5093.3	5614.7
25°	4112.7	4123.9	4007.0	3865.1	3727.0	3698.3	3899.9	4331.7	4454.9	5064.7	5591.1
27.5°	4550.8	4559.5	4425.1	4216.0	3938.5	3754.3	3881.3	4305.6	4433.8	5039.8	5551.2
30°	5083.4	5124.4	4944.0	4680.2	4275.7	3919.8	3918.6	4291.9	4410.1	4997.5	5472.9
32.5°	5628.4	5645.8	5521.4	5253.8	4729.9	4211.0	4023.1	4301.9	4403.9	4946.5	5373.3
35°	6180.9	6203.3	6122.4	5907.1	5350.9	4637.9	4227.2	4360.4	4442.5	4929.1	5303.6
37.5°	6896.4	6926.3	6814.3	6565.4	6106.2	5216.5	4566.9	4507.2	4560.7	4978.8	5282.5
40°	8027.6	8013.9	7686.6	7315.8	6932.5	5956.9	5052.2	4756.1	4787.2	5139.4	5347.2
42.5°	9344.2	9310.6	8746.9	8164.5	7840.9	6852.9	5694.4	5187.9	5181.7	5455.4	5574.9
45°	10394.4	10367.1	9859.3	9141.3	8882.5	7873.3	6524.4	5831.2	5785.2	5956.9	5995.5
47.5°	10963.1	10964.4	10671.9	10085.8	10079.6	9169.9	7590.8	6762.0	6682.4	6763.3	6722.2
50°	10764.0	10790.2	10759.0	10572.4	11172.2	10869.8	8983.3	8059.9	7899.4	7979.1	7821.0
52.5°	9800.9	9834.5	10018.6	10304.8	11631.4	12924.3	11029.1	9672.7	9486.0	9457.4	9281.9
55°	8093.5	8134.6	8510.4	9288.2	11249.3	14304.3	14257.0	11728.4	11431.0	11161.0	11086.3
57.5°	5578.6	5647.1	6251.8	7406.6	10013.6	14721.2	18101.0	14659.0	14054.2	13111.0	13128.4
60°	3144.6	3224.2	3937.3	4986.3	7519.9	14268.2	21025.3	19097.7	17821.0	15394.4	15523.8
62.5°	1999.7	2085.6	2626.9	3464.4	4512.2	11829.2	22223.7	25268.7	23647.2	18209.2	18336.2
65°	1619.0	1656.3	1911.4	2859.6	3276.5	7126.7	21314.0	30352.0	29747.3	21781.9	21189.6
67.5°	1580.4	1592.8	1724.7	2400.4	3142.1	4005.7	17000.9	31302.8	31973.5	25118.1	22378.0
70°	1561.7	1605.3	1943.7	2290.9	3008.9	3378.5	10216.5	28697.0	29756.0	25990.4	20796.3
72.5°	757.8	755.3	978.1	2071.9	3389.7	3504.2	5248.9	23219.2	24281.9	22517.3	17089.3
75°	611.0	558.7	533.8	759.1	3259.1	3618.7	3344.9	15976.8	16745.8	15097.0	10505.2
77.5°	579.9	517.7	474.1	475.4	1377.5	3837.7	2833.5	8842.7	9066.7	6819.3	2878.3
80°	480.3	423.1	392.0	441.8	667.0	3654.8	3063.7	4002.0	3672.2	1675.0	958.2
82.5°	333.5	303.6	294.9	370.8	533.8	2604.5	3562.7	2150.3	1803.1	838.7	591.1
85°	212.8	181.7	201.6	270.0	415.6	1202.1	3669.7	1676.2	1332.7	532.6	333.5
87.5°	98.3	79.6	99.6	149.3	271.3	414.4	3491.8	1882.8	1372.6	281.2	210.3
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°	5443.0	5443.0	5443.0	5443.0	5443.0	5443.0	5443.0	5443.0	5443.0	5443.0	5443.0
2.5°	5445.5	5421.8	5403.2	5368.3	5329.7	5292.4	5258.8	5216.5	5204.1	5192.9	5210.3
5°	5462.9	5439.3	5370.8	5263.8	5145.6	5034.8	4924.1	4829.5	4771.0	4738.7	4757.3
7.5°	5489.0	5455.4	5313.6	5117.0	4904.2	4710.0	4509.7	4349.2	4230.9	4174.9	4191.1
10°	5512.7	5448.0	5216.5	4921.6	4610.5	4321.8	4005.7	3744.4	3550.3	3448.2	3473.1
12.5°	5522.6	5419.3	5080.9	4677.7	4250.9	3827.8	3362.4	2971.6	2692.9	2590.8	2569.7
15°	5532.6	5387.0	4931.5	4400.2	3816.6	3218.0	2565.9	2098.1	1866.6	1815.6	1804.4
17.5°	5535.1	5331.0	4762.3	4099.0	3307.6	2492.5	1754.6	1457.2	1458.4	1540.6	1550.5
20°	5508.9	5247.6	4557.0	3724.5	2697.8	1723.5	1204.6	1153.6	1341.5	1546.8	1571.7
22.5°	5449.2	5136.9	4324.3	3287.7	1999.7	1134.9	932.1	988.0	1230.7	1482.1	1510.7
25°	5373.3	5002.5	4049.3	2781.2	1324.0	811.3	781.5	849.9	1014.2	1182.2	1198.4
27.5°	5270.0	4843.2	3740.7	2201.3	859.9	668.2	688.2	734.2	801.4	876.1	883.5
30°	5136.9	4652.8	3410.9	1605.3	649.6	601.0	629.7	654.6	683.2	725.5	729.2
32.5°	4983.8	4469.9	3072.4	1108.8	576.2	566.2	588.6	601.0	623.4	649.6	652.1
35°	4855.6	4295.7	2721.5	784.0	545.0	540.1	555.0	560.0	581.1	609.8	612.2
37.5°	4782.2	4153.8	2359.4	632.2	523.9	516.4	525.1	525.1	555.0	597.3	603.5
40°	4787.2	4075.4	1997.3	571.2	506.5	496.5	497.8	497.8	536.3	582.4	586.1
42.5°	4922.8	4095.3	1676.2	547.5	492.8	481.6	475.4	479.1	511.4	541.3	543.8
45°	5241.4	4235.9	1375.1	532.6	479.1	475.4	461.7	460.4	472.9	486.6	486.6
47.5°	5764.0	4513.4	1171.0	522.6	467.9	466.6	450.5	434.3	433.0	438.0	438.0
50°	6614.0	4991.3	1034.1	511.4	460.4	450.5	431.8	406.9	398.2	401.9	401.9
52.5°	7888.2	5843.7	981.8	496.5	444.2	428.1	406.9	382.0	374.6	375.8	375.8
55°	9559.4	7152.8	974.4	479.1	426.8	400.7	383.3	364.6	355.9	358.4	358.4
57.5°	11601.5	8963.4	1107.5	451.7	403.2	373.3	363.4	350.9	344.7	348.4	347.2
60°	14084.1	11332.7	1642.6	423.1	379.5	348.4	348.4	338.5	333.5	337.2	336.0
62.5°	16943.7	14054.2	2309.6	401.9	354.7	328.5	333.5	328.5	323.5	326.0	324.8
65°	19479.8	15827.5	2162.8	385.8	329.8	309.9	318.6	316.1	312.3	314.8	313.6
67.5°	19553.2	15170.4	1214.5	368.3	306.1	291.2	303.6	302.4	299.9	302.4	301.1
70°	17450.2	12809.8	684.4	336.0	281.2	268.8	286.2	285.0	282.5	287.5	286.2
72.5°	13980.8	9295.6	500.2	296.2	256.3	245.1	265.1	263.8	263.8	271.3	267.5
75°	8045.0	4783.5	399.5	253.9	230.2	221.5	238.9	240.2	242.7	252.6	245.1
77.5°	2293.4	1490.8	326.0	215.3	197.9	194.1	211.5	214.0	215.3	226.5	216.5
80°	852.4	686.9	268.8	180.4	161.8	163.0	179.2	182.9	184.2	195.4	182.9
82.5°	543.8	453.0	217.8	139.4	126.9	125.7	145.6	150.6	150.6	151.8	144.3
85°	317.3	271.3	164.3	100.8	89.6	85.9	108.3	117.0	113.2	110.8	105.8
87.5°	212.8	186.7	100.8	56.0	48.5	46.0	63.5	69.7	67.2	63.5	59.7
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)