

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: P300868

Luminaire Tested: **GLNA-AF-05-LED-E1-SL4-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P300868  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24301)  
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-SL4-7050  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(5) 70 CRI, 5000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V  
Square Wide OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

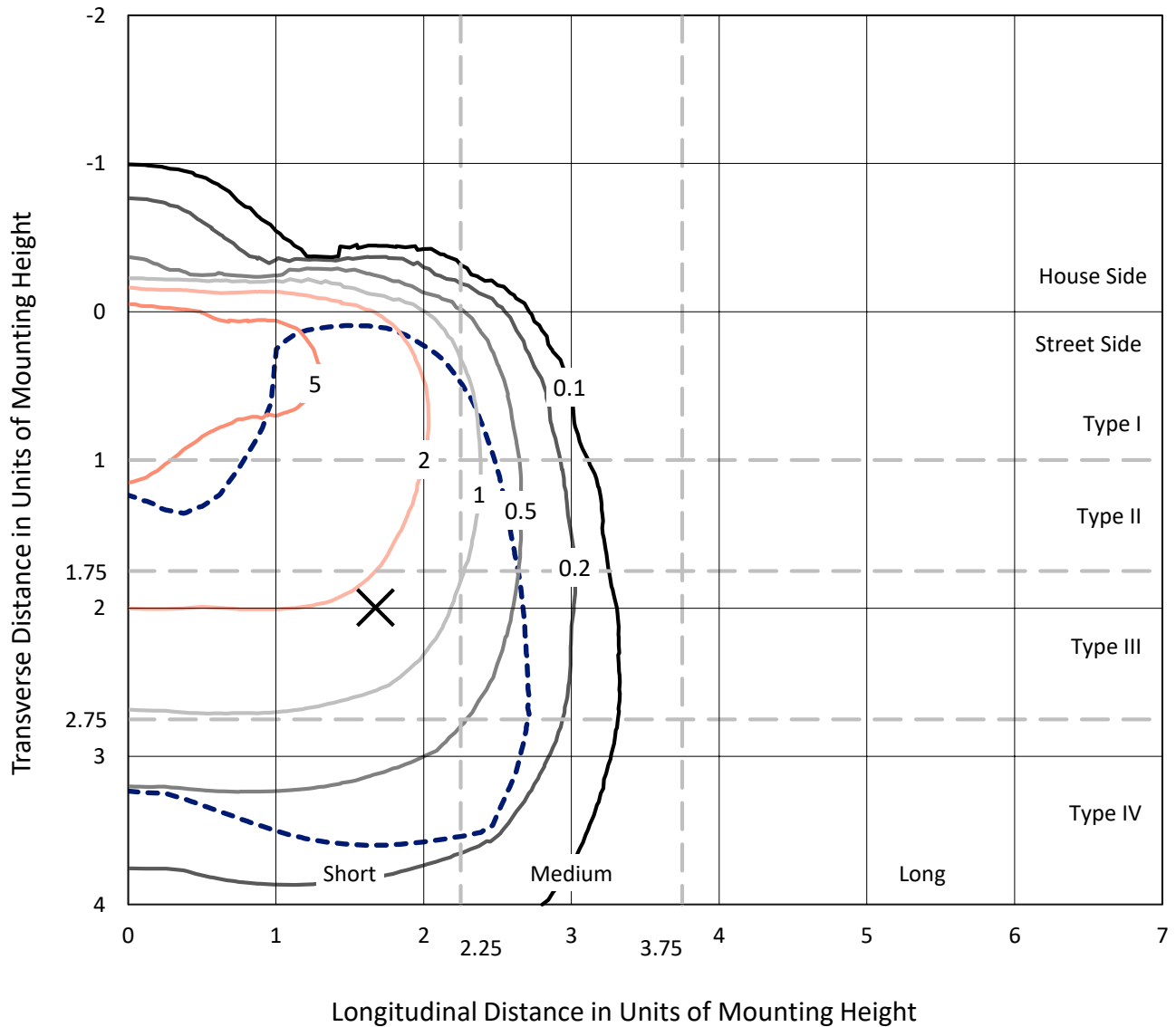
Lumens per Lamp: N/A  
Luminaire Lumens: 28170.4 lumens  
Efficiency: N/A  
Efficacy: 101.0 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Semi-Cutoff  
BUG Rating: B2 - U0 - G5  
  
Input Watts (W): 279  
Input Voltage (V): NR  
Input Current (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

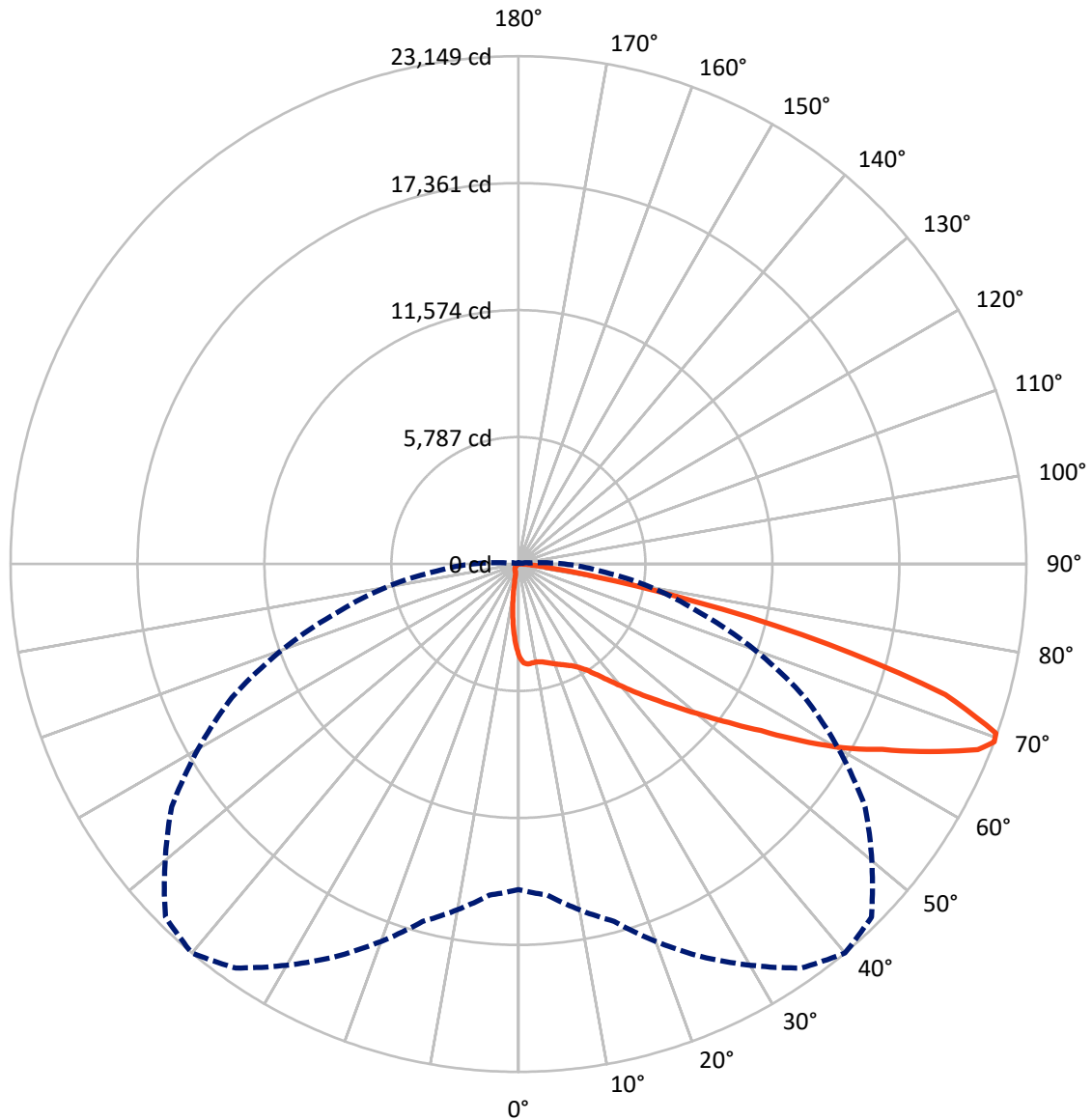
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.4 fc  
 Type IV - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral    - - - Horizontal Cone Through 69-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1648.1	0.0	1648.1
	% Fixture	5.9	0.0	5.9
<b>Street Side</b>	Lumens	26522.3	0.0	26522.3
	% Fixture	94.1	0.0	94.1
<b>Total</b>	Lumens	28170.4	0.0	28170.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	341.2	1.2
10°-20°	839.2	3.0
20°-30°	1413.5	5.0
30°-40°	2313.9	8.2
40°-50°	4006.5	14.2
50°-60°	6310.7	22.4
60°-70°	8241.5	29.3
70°-80°	4244.7	15.1
80°-90°	459.2	1.6
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°	28170.4	100.0
0°-180°	28170.4	100.0



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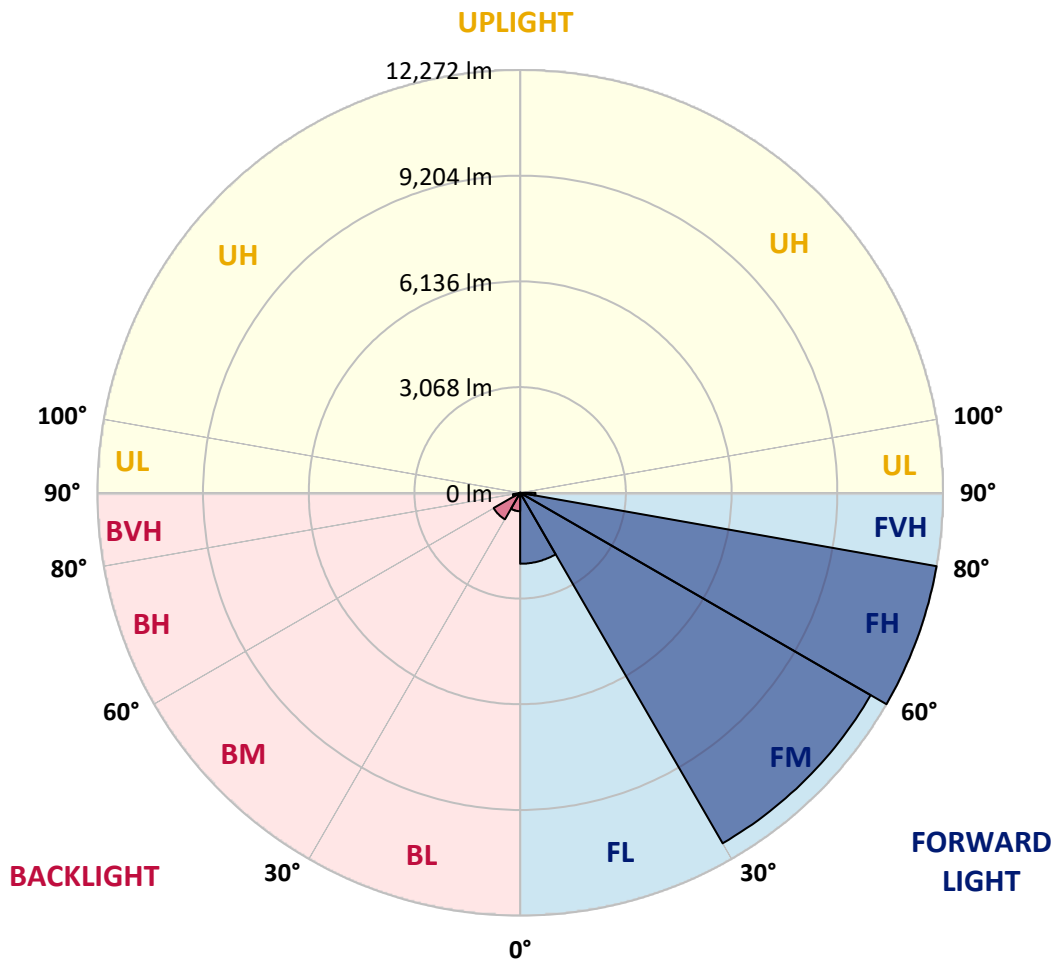
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2060.1	7.3			
FM	(30°-60°)	11745.3	41.7			
FH	(60°-80°)	12272.2	43.6			G5
FVH	(80°-90°)	444.7	1.6			G3/500
BL	(0°-30°)	533.9	1.9	B2/1000		
BM	(30°-60°)	885.8	3.1	B1/1000		
BH	(60°-80°)	214.0	0.8	B1/500		G1/500
BVH	(80°-90°)	14.4	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G5**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	40°	45°	55°	65°	75°	85°
0°	4208.8	4208.8	4208.8	4208.8	4208.8	4208.8	4208.8	4208.8	4208.8	4208.8	4208.8
2.5°	4621.3	4596.2	4581.1	4560.9	4535.8	4514.0	4505.6	4443.6	4384.9	4304.4	4212.2
5°	4706.8	4698.4	4671.6	4644.8	4614.6	4581.1	4562.6	4488.8	4405.0	4287.6	4126.6
7.5°	4715.2	4705.1	4671.6	4634.7	4592.8	4552.6	4520.7	4446.9	4369.8	4250.7	4054.5
10°	4701.8	4690.1	4664.9	4624.7	4572.7	4534.1	4502.3	4431.8	4366.4	4259.1	4041.1
12.5°	4686.7	4675.0	4663.2	4643.1	4597.8	4571.0	4544.2	4477.1	4418.4	4327.9	4089.8
15°	4701.8	4695.1	4708.5	4700.1	4675.0	4651.5	4624.7	4564.3	4510.6	4435.2	4178.6
17.5°	4765.5	4765.5	4807.4	4812.5	4789.0	4755.5	4716.9	4656.5	4611.2	4547.5	4284.3
20°	4914.8	4909.7	4963.4	4973.4	4916.4	4864.4	4807.4	4733.7	4698.4	4658.2	4388.2
22.5°	5171.3	5147.8	5179.7	5169.6	5057.3	4976.8	4906.4	4815.8	4797.4	4778.9	4503.9
25°	5505.0	5491.6	5513.4	5414.4	5216.6	5107.6	5023.7	4921.5	4921.5	4939.9	4634.7
27.5°	5989.6	5939.3	5865.5	5691.1	5394.3	5255.1	5164.6	5055.6	5084.1	5152.9	4807.4
30°	6485.9	6430.6	6261.2	5992.9	5610.6	5464.7	5359.1	5245.1	5312.2	5437.9	5038.8
32.5°	6975.6	6913.5	6673.7	6335.0	5920.8	5775.0	5672.7	5546.9	5659.3	5870.5	5377.6
35°	7450.1	7394.8	7118.1	6719.0	6333.3	6212.6	6118.7	6009.7	6153.9	6449.0	5855.4
37.5°	7983.3	7923.0	7585.9	7153.3	6834.7	6747.5	6678.8	6569.8	6821.3	7253.9	6521.1
40°	8639.0	8536.7	8082.3	7651.3	7414.9	7373.0	7326.0	7310.9	7701.6	8300.2	7408.2
42.5°	9390.2	9222.5	8602.1	8176.2	8052.1	8082.3	8070.5	8137.6	8803.3	9601.5	8488.0
45°	10141.4	9925.1	9180.6	8736.2	8753.0	8858.6	8924.0	9192.3	10183.3	11093.8	9650.1
47.5°	10778.6	10565.6	9735.6	9341.5	9542.8	9750.7	9928.4	10436.5	11601.9	12562.7	10553.9
50°	11323.5	11122.3	10324.2	10007.2	10460.0	10795.3	11083.8	11836.6	13127.8	13681.1	11187.7
52.5°	11769.6	11635.4	10934.5	10770.2	11508.0	11999.3	12421.9	13324.0	14479.3	14590.0	11680.7
55°	12203.9	12108.3	11590.2	11677.4	12738.8	13407.8	13942.7	14901.9	15643.0	15347.9	12153.6
57.5°	12703.6	12616.4	12338.0	12827.6	14356.9	15198.7	15782.2	16300.3	16667.6	16122.6	12599.6
60°	13213.3	13163.0	13169.7	14105.4	16214.8	17023.0	17345.0	17479.1	17673.6	16852.0	12624.8
62.5°	13699.6	13795.2	14120.5	15527.3	17993.9	18614.3	18777.0	18909.5	18681.4	16967.7	11663.9
65°	14522.9	14678.9	15455.2	17430.5	19950.8	20614.8	20782.5	20328.1	18840.7	15472.0	9487.4
67.5°	14925.3	15210.4	16595.5	19204.6	21848.9	22586.7	22524.7	20420.3	16907.3	11798.1	6088.5
69°	14841.5	15145.0	16858.7	19747.9	22479.4	23148.5	22754.4	19291.8	14403.9	8546.7	3737.6
70°	14509.5	14816.4	16722.9	19727.7	22559.9	23089.8	22328.5	17898.3	12178.7	6249.5	2337.5
72.5°	12116.7	12381.6	14846.5	17831.3	20782.5	20351.5	18679.7	12400.1	5934.3	1702.0	526.5
75°	7458.5	7606.0	10652.8	13433.0	15696.7	14590.0	12445.3	6169.0	1769.0	481.2	291.8
77.5°	3940.5	4007.6	5832.0	7917.9	9950.2	8233.2	6378.6	2406.2	814.9	301.8	211.3
80°	2329.1	2379.4	3140.7	3620.2	4306.1	3596.8	2550.4	1477.3	583.5	189.5	187.8
82.5°	1333.1	1364.9	2277.1	2012.2	1696.9	1448.8	1269.4	1400.1	350.5	127.4	194.5
85°	489.6	496.3	1281.1	1530.9	1009.4	600.3	630.5	1160.4	93.9	80.5	152.6
87.5°	228.0	223.0	659.0	937.3	590.2	380.6	491.3	254.9	36.9	52.0	41.9
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°	4208.8	4208.8	4208.8	4208.8	4208.8	4208.8	4208.8	4208.8	4208.8	4208.8	4208.8
2.5°	4158.5	4096.5	3984.1	3868.4	3751.0	3660.5	3571.6	3501.2	3477.7	3434.1	3437.5
5°	4031.1	3917.0	3682.3	3444.2	3196.0	2991.4	2798.6	2642.7	2567.2	2490.1	2490.1
7.5°	3920.4	3754.4	3387.2	2999.8	2599.1	2262.0	1958.5	1730.5	1604.7	1504.1	1502.4
10°	3878.5	3653.8	3140.7	2585.7	2027.3	1567.8	1207.3	975.9	856.9	779.7	776.4
12.5°	3896.9	3618.6	2951.2	2203.3	1502.4	1007.8	699.2	550.0	499.7	476.2	476.2
15°	3950.6	3608.5	2761.7	1829.4	1061.4	630.5	464.5	424.2	420.9	420.9	420.9
17.5°	4016.0	3611.9	2567.2	1465.5	722.7	451.1	400.8	395.7	399.1	399.1	399.1
20°	4083.0	3613.5	2357.6	1128.5	509.8	392.4	377.3	375.6	379.0	379.0	380.6
22.5°	4165.2	3621.9	2148.0	843.4	420.9	370.6	358.8	358.8	360.5	360.5	358.8
25°	4259.1	3638.7	1930.0	625.5	384.0	355.5	345.4	343.7	345.4	343.7	342.1
27.5°	4376.5	3662.2	1686.9	489.6	367.2	340.4	332.0	332.0	330.3	328.7	327.0
30°	4524.1	3689.0	1413.6	415.9	350.5	327.0	318.6	316.9	315.2	311.9	311.9
32.5°	4748.7	3747.7	1143.6	377.3	332.0	308.5	301.8	301.8	298.5	295.1	293.4
35°	5094.2	3863.4	902.1	353.8	311.9	288.4	280.0	280.0	276.7	275.0	273.3
37.5°	5572.1	4039.5	700.9	332.0	291.8	266.6	258.2	256.6	253.2	249.8	248.2
40°	6207.6	4257.4	551.7	311.9	271.6	244.8	238.1	234.8	228.0	223.0	223.0
42.5°	7005.7	4505.6	447.7	290.1	248.2	224.7	219.7	214.6	202.9	197.9	196.2
45°	7840.8	4728.6	379.0	264.9	224.7	204.6	201.2	192.8	177.7	172.7	172.7
47.5°	8442.8	4780.6	333.7	241.5	202.9	182.8	181.1	166.0	152.6	149.2	147.6
50°	8818.4	4678.3	296.8	218.0	182.8	162.7	157.6	139.2	130.8	127.4	125.8
52.5°	9071.6	4495.5	266.6	197.9	164.3	144.2	132.5	119.1	112.3	109.0	109.0
55°	9274.5	4237.3	236.4	179.4	149.2	129.1	112.3	102.3	95.6	92.2	92.2
57.5°	9331.5	3886.9	206.2	164.3	134.1	114.0	95.6	88.9	80.5	78.8	78.8
60°	8917.3	3254.7	182.8	145.9	120.7	98.9	83.8	75.5	67.1	65.4	63.7
62.5°	7825.7	2518.6	161.0	129.1	105.6	85.5	72.1	62.0	55.3	55.3	55.3
65°	5969.5	1688.6	140.9	112.3	92.2	72.1	62.0	50.3	47.0	47.0	48.6
67.5°	3573.3	918.9	120.7	95.6	78.8	60.4	52.0	43.6	41.9	43.6	43.6
69°	2094.3	539.9	109.0	85.5	68.7	53.7	45.3	38.6	41.9	43.6	43.6
70°	1292.8	363.9	100.6	77.1	62.0	48.6	41.9	36.9	40.2	41.9	41.9
72.5°	360.5	187.8	80.5	60.4	50.3	40.2	33.5	33.5	38.6	40.2	40.2
75°	234.8	139.2	62.0	45.3	38.6	31.9	28.5	31.9	36.9	38.6	38.6
77.5°	194.5	114.0	50.3	36.9	31.9	30.2	26.8	28.5	33.5	35.2	35.2
80°	177.7	80.5	40.2	33.5	28.5	26.8	25.2	23.5	30.2	31.9	31.9
82.5°	169.4	63.7	35.2	30.2	26.8	23.5	21.8	23.5	26.8	28.5	30.2
85°	105.6	41.9	31.9	28.5	23.5	21.8	21.8	21.8	25.2	26.8	26.8
87.5°	38.6	33.5	28.5	23.5	20.1	20.1	20.1	20.1	21.8	25.2	25.2
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)