

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: P299117

Luminaire Tested: **GLNA-AF-04-LED-E1-SL2-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299117  
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-04-LED-E1-SL2-7050  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 5000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V  
Narrow OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 23440.9 lumens  
Efficiency: N/A  
Efficacy: 104.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G4

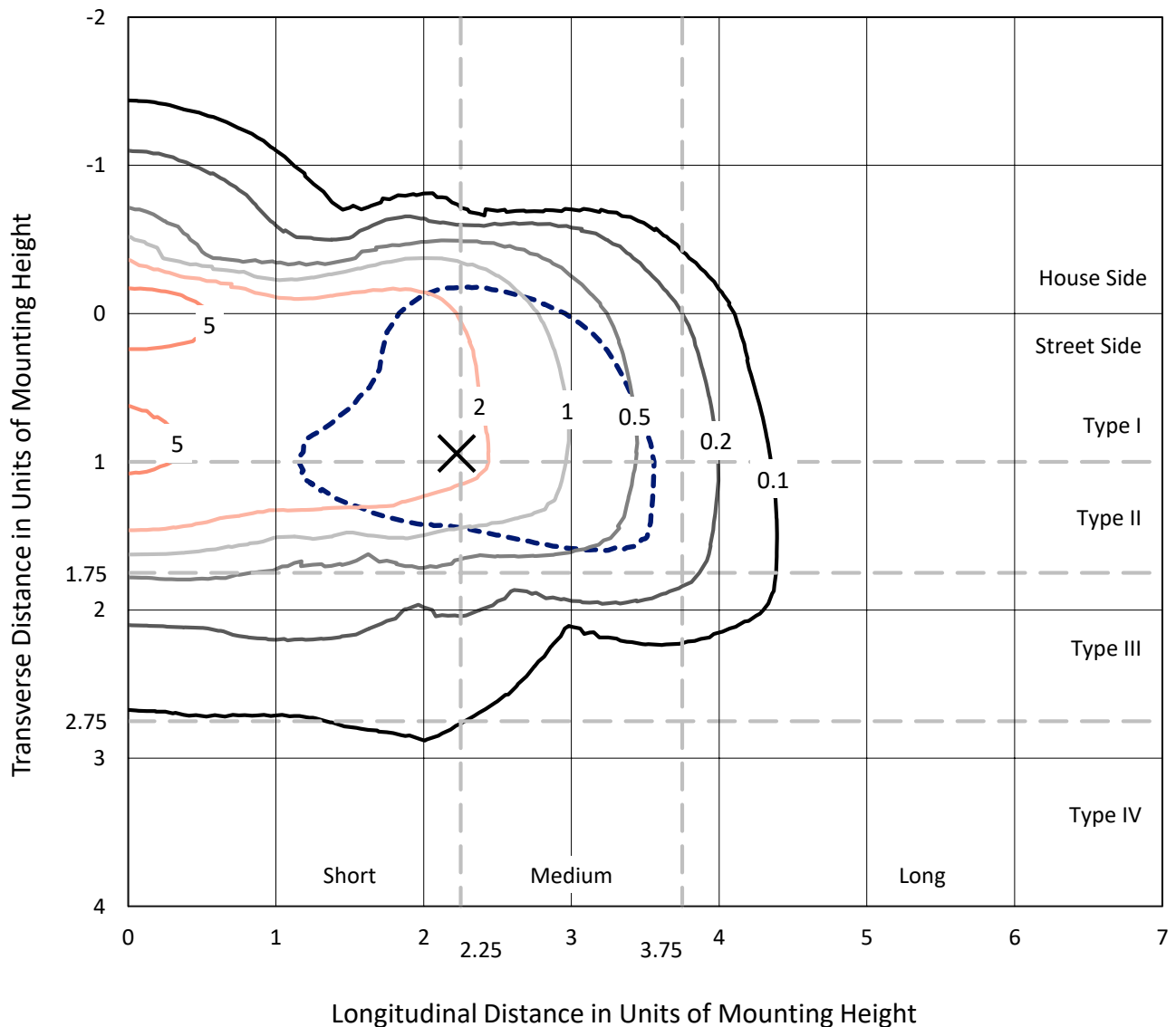
Input Watts (W): 225  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

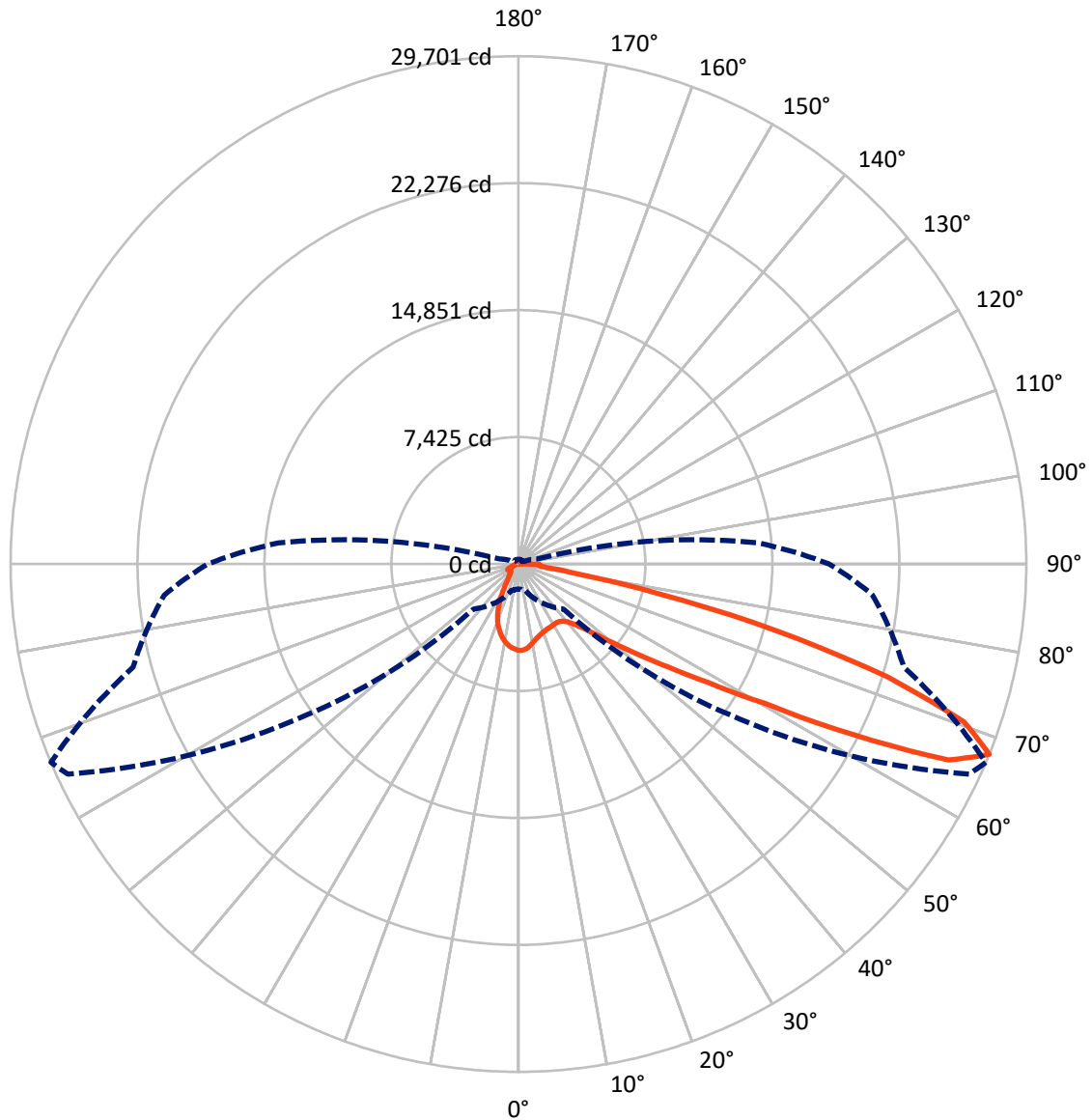
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.1 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	3883.9	0.0	3883.9
	% Fixture	16.6	0.0	16.6
<b>Street Side</b>	Lumens	19557.0	0.0	19557.0
	% Fixture	83.4	0.0	83.4
<b>Total</b>	Lumens	23440.9	0.0	23440.9
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	431.4	1.8
10°-20°	998.1	4.3
20°-30°	1353.0	5.8
30°-40°	1923.4	8.2
40°-50°	3217.9	13.7
50°-60°	5090.7	21.7
60°-70°	6485.0	27.7
70°-80°	3396.8	14.5
80°-90°	544.8	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°	23440.9	100.0
0°-180°	23440.9	100.0

**Coefficient of Utilization**



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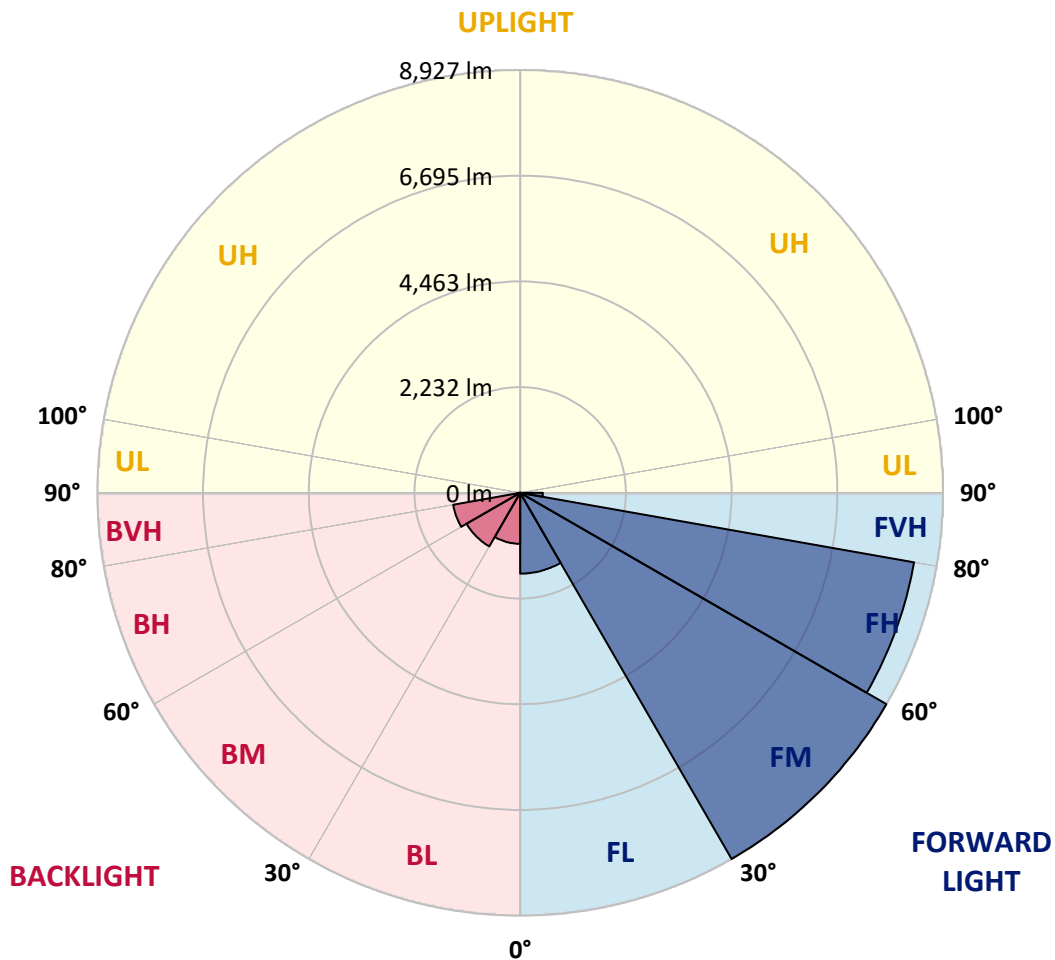
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1705.9	7.3			
FM	(30°-60°)	8926.8	38.1			
FH	(60°-80°)	8445.3	36.0			G4/12000
FVH	(80°-90°)	479.0	2.0			G3/500
BL	(0°-30°)	1076.5	4.6	B3/2500		
BM	(30°-60°)	1305.1	5.6	B2/2500		
BH	(60°-80°)	1436.5	6.1	B3/2500		G3/2500
BVH	(80°-90°)	65.8	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°	5056.2	5056.2	5056.2	5056.2	5056.2	5056.2	5056.2	5056.2	5056.2	5056.2	5056.2
2.5°	4848.1	4856.2	4881.6	4897.8	4970.6	5001.8	5023.8	5045.7	5049.2	5059.6	5049.2
5°	4339.5	4356.8	4404.2	4457.4	4598.4	4709.4	4826.1	4947.5	4969.5	5048.1	5070.0
7.5°	3945.3	3940.7	3980.0	4043.5	4188.0	4341.8	4546.4	4788.0	4835.4	5012.2	5097.8
10°	3657.4	3654.0	3695.6	3761.5	3899.0	4044.7	4275.9	4606.5	4673.5	4955.6	5124.4
12.5°	3444.7	3445.9	3487.5	3560.3	3700.2	3847.0	4081.7	4430.8	4516.3	4889.7	5152.1
15°	3303.7	3313.0	3346.5	3423.9	3560.3	3707.2	3937.2	4299.0	4394.9	4837.7	5183.3
17.5°	3256.3	3271.4	3282.9	3339.6	3456.3	3603.1	3828.5	4201.9	4303.6	4801.8	5211.0
20°	3300.3	3317.6	3295.6	3315.3	3389.3	3518.7	3743.0	4125.6	4229.6	4761.4	5214.5
22.5°	3488.7	3504.9	3440.1	3383.5	3378.9	3457.5	3672.5	4065.5	4173.0	4731.3	5215.7
25°	3820.4	3830.8	3722.2	3590.4	3462.1	3435.5	3622.8	4023.9	4138.3	4704.7	5193.7
27.5°	4227.3	4235.4	4110.6	3916.4	3658.6	3487.5	3605.4	3999.6	4118.7	4681.6	5156.7
30°	4722.1	4760.2	4592.6	4347.6	3971.9	3641.3	3640.1	3986.9	4096.7	4642.3	5083.9
32.5°	5228.4	5244.6	5129.0	4880.4	4393.8	3911.8	3737.2	3996.1	4090.9	4594.9	4991.4
35°	5741.6	5762.4	5687.3	5487.3	4970.6	4308.2	3926.8	4050.5	4126.8	4578.7	4926.7
37.5°	6406.3	6434.1	6330.0	6098.8	5672.3	4845.8	4242.4	4186.9	4236.6	4625.0	4907.0
40°	7457.1	7444.4	7140.3	6795.9	6439.8	5533.6	4693.2	4418.1	4447.0	4774.1	4967.1
42.5°	8680.1	8648.9	8125.2	7584.2	7283.7	6365.8	5289.7	4819.2	4813.4	5067.7	5178.7
45°	9655.7	9630.3	9158.6	8491.7	8251.2	7313.7	6060.7	5416.8	5374.0	5533.6	5569.4
47.5°	10184.0	10185.1	9913.5	9369.0	9363.2	8518.2	7051.3	6281.5	6207.5	6282.6	6244.5
50°	9999.0	10023.3	9994.4	9821.0	10378.2	10097.3	8344.8	7487.1	7338.0	7412.0	7265.2
52.5°	9104.3	9135.5	9306.6	9572.5	10804.7	12005.8	10245.2	8985.2	8811.9	8785.3	8622.3
55°	7518.3	7556.5	7905.6	8628.1	10449.8	13287.7	13243.8	10894.9	10618.6	10367.8	10298.4
57.5°	5182.2	5245.7	5807.5	6880.3	9302.0	13675.0	16814.5	13617.2	13055.4	12179.2	12195.3
60°	2921.1	2995.1	3657.4	4631.9	6985.4	13254.2	19531.0	17740.5	16554.4	14300.3	14420.6
62.5°	1857.6	1937.4	2440.2	3218.2	4191.5	10988.5	20644.2	23472.8	21966.6	16915.1	17033.0
65°	1503.9	1538.6	1775.5	2656.4	3043.6	6620.2	19799.2	28194.9	27633.1	20233.9	19683.6
67.5°	1468.1	1479.6	1602.2	2229.8	2918.8	3721.0	15792.7	29078.1	29701.1	23333.0	20787.6
70°	1450.7	1491.2	1805.6	2128.1	2795.1	3138.4	9490.4	26657.5	27641.2	24143.3	19318.3
72.5°	704.0	701.7	908.6	1924.7	3148.8	3255.2	4875.8	21569.0	22556.2	20917.0	15874.7
75°	567.6	519.0	495.9	705.1	3027.4	3361.5	3107.2	14841.3	15555.7	14024.1	9758.6
77.5°	538.7	480.9	440.4	441.6	1279.6	3565.0	2632.1	8214.2	8422.3	6334.6	2673.7
80°	446.2	393.0	364.1	410.4	619.6	3395.0	2846.0	3717.6	3411.2	1555.9	890.1
82.5°	309.8	282.1	274.0	344.5	495.9	2419.4	3309.5	1997.5	1675.0	779.1	549.1
85°	197.7	168.8	187.3	250.8	386.1	1116.7	3408.9	1557.1	1238.0	494.7	309.8
87.5°	91.3	74.0	92.5	138.7	252.0	384.9	3243.6	1749.0	1275.0	261.2	195.4
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°	5056.2	5056.2	5056.2	5056.2	5056.2	5056.2	5056.2	5056.2	5056.2	5056.2	5056.2
2.5°	5058.5	5036.5	5019.2	4986.8	4951.0	4916.3	4885.1	4845.8	4834.2	4823.8	4840.0
5°	5074.6	5052.7	4989.1	4889.7	4779.9	4677.0	4574.1	4486.3	4431.9	4401.9	4419.2
7.5°	5098.9	5067.7	4935.9	4753.3	4555.6	4375.3	4189.2	4040.1	3930.3	3878.2	3893.3
10°	5120.9	5060.8	4845.8	4571.8	4282.8	4014.6	3721.0	3478.3	3297.9	3203.2	3226.3
12.5°	5130.1	5034.2	4719.8	4345.2	3948.7	3555.7	3123.4	2760.4	2501.5	2406.7	2387.0
15°	5139.4	5004.1	4581.1	4087.5	3545.3	2989.3	2383.6	1948.9	1733.9	1686.5	1676.1
17.5°	5141.7	4952.1	4423.8	3807.7	3072.5	2315.4	1629.9	1353.6	1354.8	1431.1	1440.3
20°	5117.4	4874.7	4233.1	3459.8	2506.1	1601.0	1119.0	1071.6	1246.1	1436.9	1460.0
22.5°	5061.9	4771.8	4016.9	3054.0	1857.6	1054.2	865.8	917.8	1143.2	1376.7	1403.3
25°	4991.4	4646.9	3761.5	2583.6	1229.9	753.7	725.9	789.5	942.1	1098.2	1113.2
27.5°	4895.5	4499.0	3474.8	2044.9	798.8	620.7	639.2	682.0	744.4	813.8	820.7
30°	4771.8	4322.1	3168.5	1491.2	603.4	558.3	584.9	608.0	634.6	673.9	677.4
32.5°	4629.6	4152.2	2854.1	1030.0	535.2	526.0	546.8	558.3	579.1	603.4	605.7
35°	4510.5	3990.4	2528.1	728.3	506.3	501.7	515.6	520.2	539.8	566.4	568.7
37.5°	4442.3	3858.6	2191.7	587.2	486.7	479.7	487.8	487.8	515.6	554.9	560.6
40°	4447.0	3785.8	1855.3	530.6	470.5	461.2	462.4	462.4	498.2	541.0	544.5
42.5°	4573.0	3804.3	1557.1	508.6	457.8	447.4	441.6	445.0	475.1	502.8	505.2
45°	4868.9	3934.9	1277.3	494.7	445.0	441.6	428.9	427.7	439.3	452.0	452.0
47.5°	5354.4	4192.7	1087.8	485.5	434.6	433.5	418.5	403.4	402.3	406.9	406.9
50°	6143.9	4636.5	960.6	475.1	427.7	418.5	401.1	378.0	369.9	373.4	373.4
52.5°	7327.6	5428.4	912.0	461.2	412.7	397.6	378.0	354.9	347.9	349.1	349.1
55°	8880.1	6644.4	905.1	445.0	396.5	372.2	356.0	338.7	330.6	332.9	332.9
57.5°	10777.0	8326.4	1028.8	419.6	374.5	346.8	337.5	326.0	320.2	323.7	322.5
60°	13083.1	10527.3	1525.9	393.0	352.6	323.7	323.7	314.4	309.8	313.3	312.1
62.5°	15739.5	13055.4	2145.5	373.4	329.4	305.2	309.8	305.2	300.5	302.9	301.7
65°	18095.3	14702.6	2009.1	358.3	306.3	287.8	295.9	293.6	290.1	292.5	291.3
67.5°	18163.5	14092.3	1128.2	342.2	284.4	270.5	282.1	280.9	278.6	280.9	279.7
70°	16210.0	11899.4	635.8	312.1	261.2	249.7	265.9	264.7	262.4	267.0	265.9
72.5°	12987.2	8635.0	464.7	275.1	238.1	227.7	246.2	245.1	245.1	252.0	248.5
75°	7473.3	4443.5	371.1	235.8	213.9	205.8	221.9	223.1	225.4	234.7	227.7
77.5°	2130.4	1384.8	302.9	200.0	183.8	180.3	196.5	198.8	200.0	210.4	201.1
80°	791.8	638.1	249.7	167.6	150.3	151.4	166.5	169.9	171.1	181.5	169.9
82.5°	505.2	420.8	202.3	129.5	117.9	116.8	135.2	139.9	139.9	141.0	134.1
85°	294.8	252.0	152.6	93.6	83.2	79.8	100.6	108.7	105.2	102.9	98.3
87.5°	197.7	173.4	93.6	52.0	45.1	42.8	59.0	64.7	62.4	59.0	55.5
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)