

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: P299860

Luminaire Tested: **GLNA-AF-08-LED-E1-5WQ**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299860
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24143)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-08-LED-E1-5WQ
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(8) 70 CRI, 4000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 50072.3 lumens
Efficiency: N/A
Efficacy: 112.5 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B5 - U0 - G5

Input Watts (W): 445
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

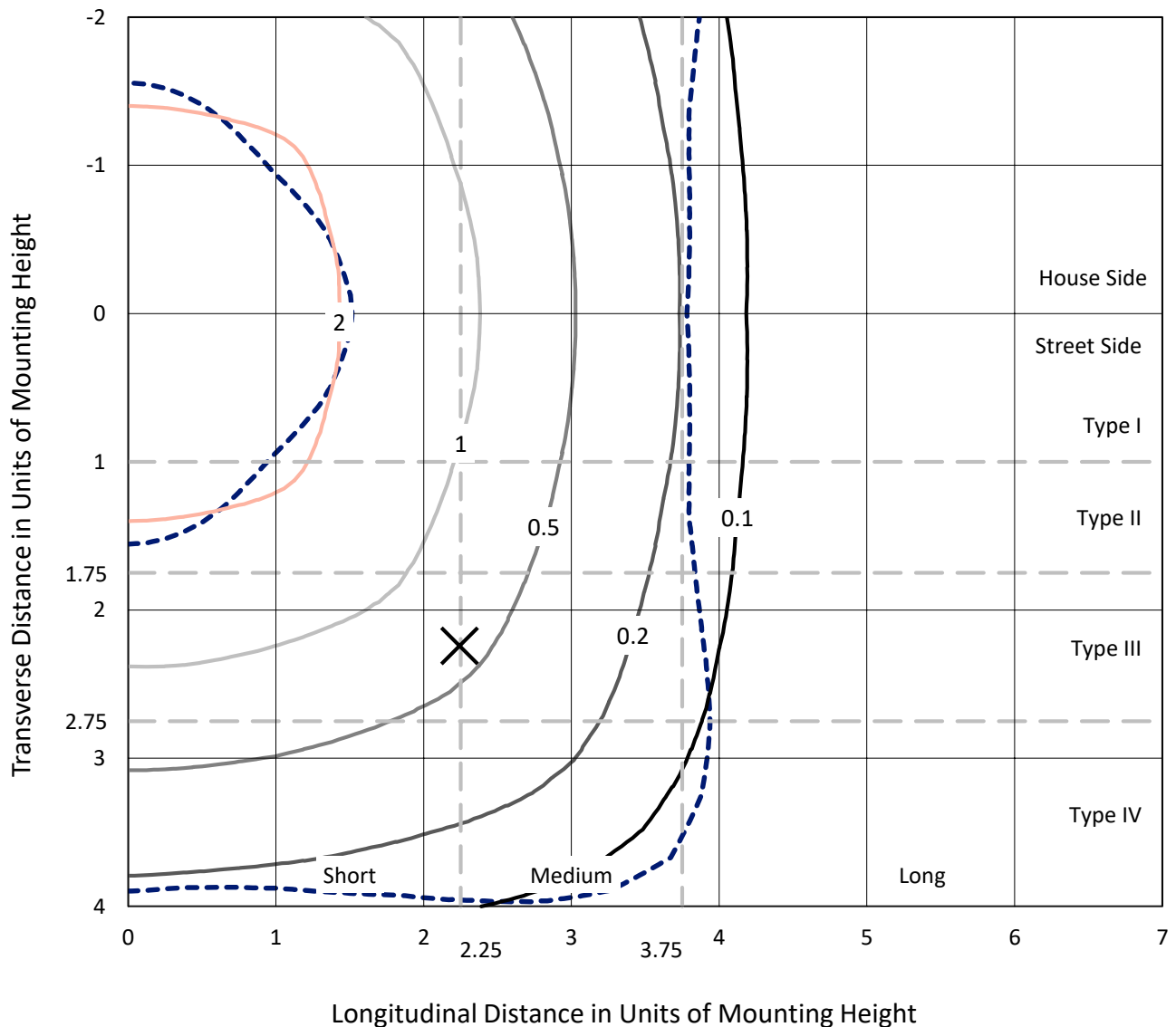


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

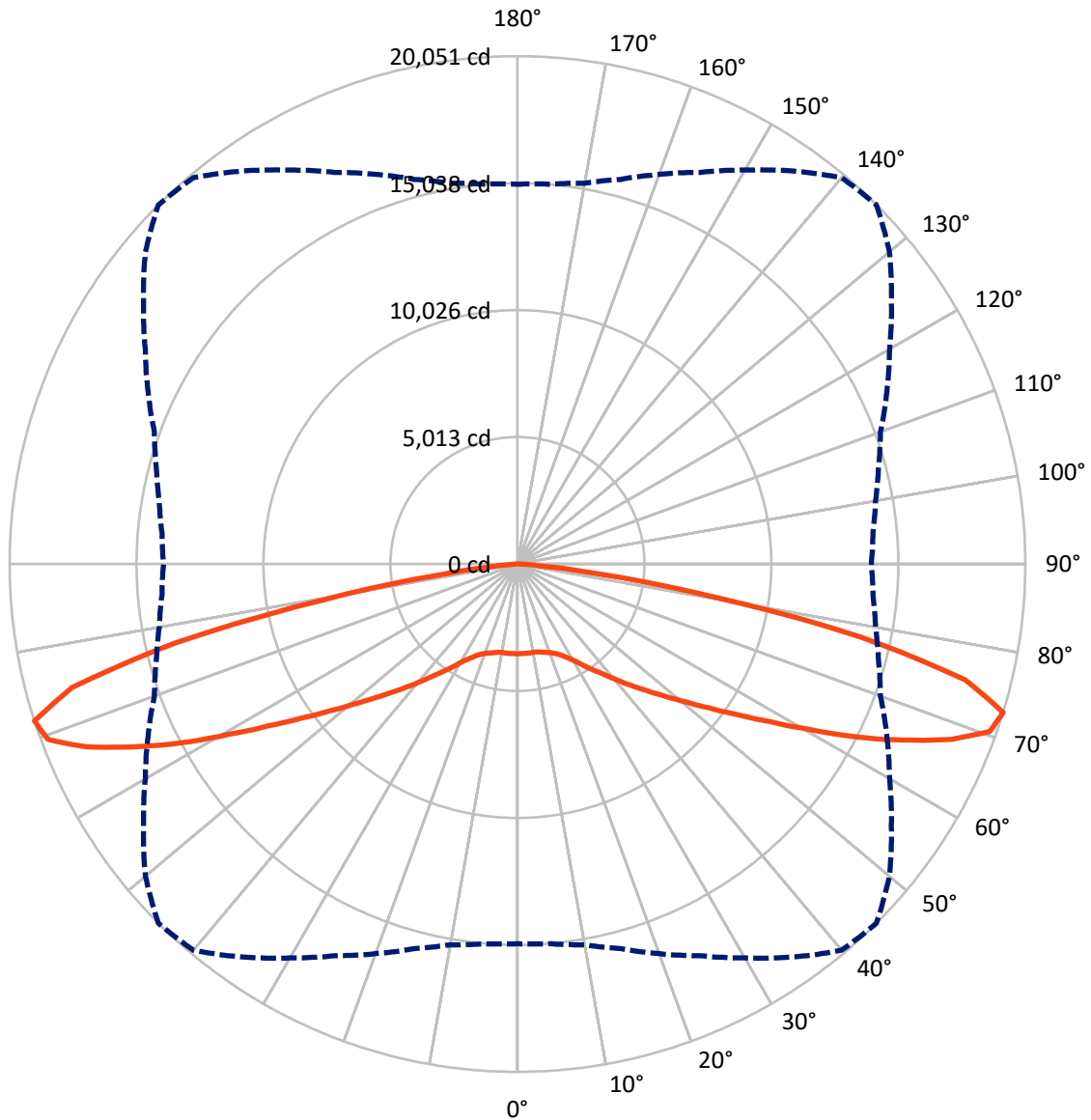


Based on 30 foot mounting height. Maximum calculated value = 3.9 fc
 Type V - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	25036.2	0.0	25036.2
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	25036.2	0.0	25036.2
	% Fixture	50.0	0.0	50.0
Total	Lumens	50072.3	0.0	50072.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	338.6	0.7
10°-20°	1028.3	2.1
20°-30°	1879.2	3.8
30°-40°	3240.1	6.5
40°-50°	5538.9	11.1
50°-60°	8977.8	17.9
60°-70°	14893.8	29.7
70°-80°	13118.0	26.2
80°-90°	1057.7	2.1
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°	50072.3	100.0
0°-180°	50072.3	100.0



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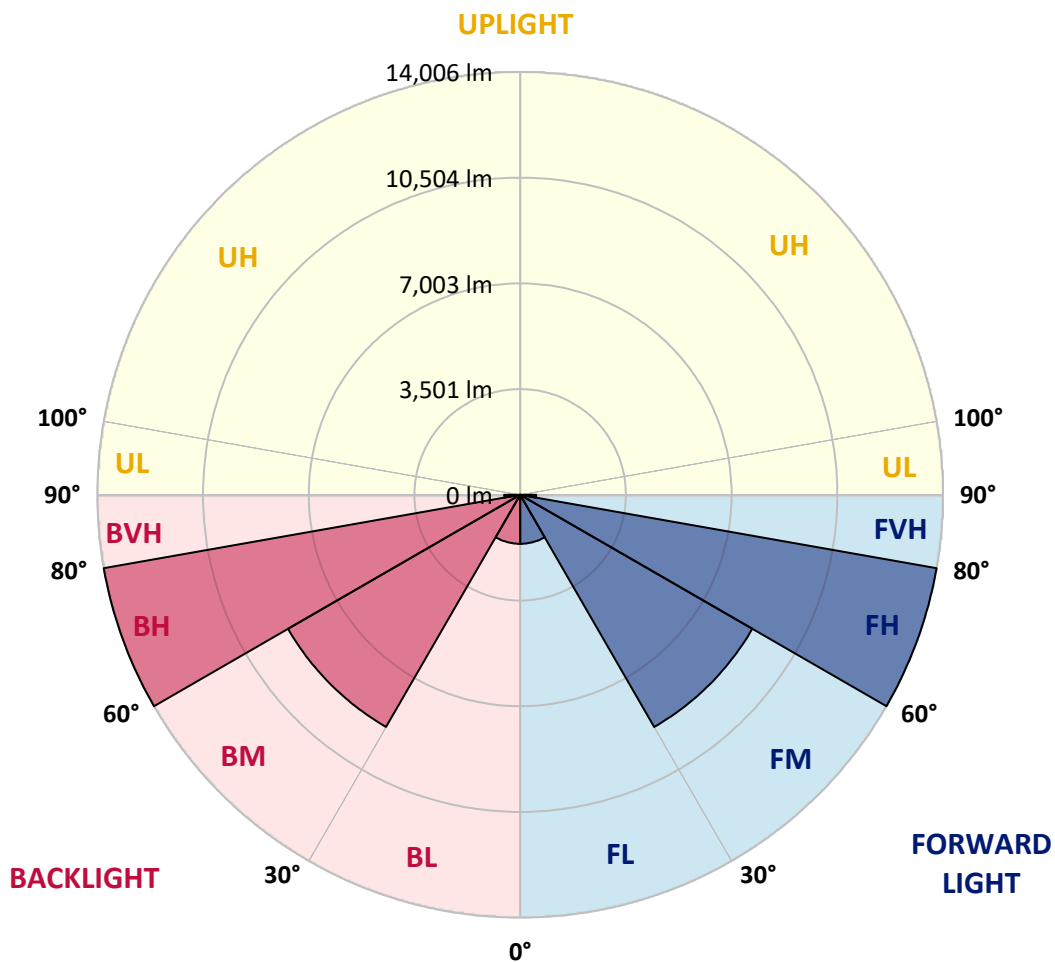
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1623.1	3.2			
FM	(30°-60°)	8878.4	17.7			
FH	(60°-80°)	14005.9	28.0			G5
FVH	(80°-90°)	528.8	1.1			G4/750
BL	(0°-30°)	1623.1	3.2	B3/2500		
BM	(30°-60°)	8878.4	17.7	B5		
BH	(60°-80°)	14005.9	28.0	B5		G5
BVH	(80°-90°)	528.8	1.1			G4/750
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G5

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3545.9	3545.9	3545.9	3545.9	3545.9	3545.9	3545.9	3545.9	3545.9	3545.9	3545.9
2.5°	3545.9	3548.2	3550.5	3548.2	3548.2	3545.9	3543.6	3545.9	3543.6	3539.0	3541.3
5°	3557.4	3562.0	3562.0	3557.4	3559.7	3557.4	3552.8	3555.1	3550.5	3543.6	3543.6
7.5°	3571.2	3573.5	3573.5	3568.9	3571.2	3566.6	3562.0	3559.7	3555.1	3545.9	3539.0
10°	3591.8	3594.1	3591.8	3587.2	3587.2	3580.3	3568.9	3564.3	3555.1	3541.3	3534.4
12.5°	3614.8	3617.1	3614.8	3610.2	3607.9	3596.4	3587.2	3580.3	3573.5	3562.0	3550.5
15°	3646.9	3651.5	3646.9	3637.8	3630.9	3621.7	3617.1	3619.4	3621.7	3612.5	3601.0
17.5°	3706.7	3709.0	3702.1	3681.4	3672.2	3663.0	3663.0	3667.6	3674.5	3669.9	3658.4
20°	3816.9	3810.0	3793.9	3768.7	3757.2	3741.1	3738.8	3741.1	3741.1	3738.8	3729.6
22.5°	3954.7	3950.1	3929.4	3897.3	3881.2	3872.0	3858.2	3846.7	3844.5	3837.6	3828.4
25°	4120.0	4117.7	4092.5	4064.9	4053.4	4042.0	4030.5	4014.4	4000.6	3984.5	3975.4
27.5°	4331.3	4322.1	4285.4	4271.6	4255.5	4248.6	4232.6	4214.2	4202.7	4182.0	4170.6
30°	4563.3	4563.3	4533.4	4528.8	4528.8	4512.8	4494.4	4462.2	4441.6	4420.9	4414.0
32.5°	4795.2	4797.5	4767.7	4776.9	4783.7	4795.2	4799.8	4788.3	4774.6	4772.3	4758.5
35°	5130.5	5121.3	5091.5	5098.4	5096.1	5093.8	5093.8	5119.0	5123.6	5128.2	5100.7
37.5°	5546.2	5546.2	5516.4	5516.4	5502.6	5488.8	5470.4	5486.5	5511.8	5518.6	5500.3
40°	6021.6	6037.7	6000.9	5998.6	6003.2	5959.6	5938.9	5964.2	5980.3	6007.8	5987.1
42.5°	6582.0	6570.5	6533.7	6529.1	6503.9	6490.1	6471.7	6492.4	6517.7	6536.0	6542.9
45°	7119.4	7110.2	7068.8	7068.8	7043.6	7032.1	7041.3	7075.7	7087.2	7112.5	7137.7
47.5°	7649.9	7638.4	7610.8	7622.3	7624.6	7645.3	7675.1	7707.3	7739.4	7773.9	7785.4
50°	8191.9	8194.1	8164.3	8191.9	8226.3	8283.7	8364.1	8416.9	8483.5	8527.2	8540.9
52.5°	8685.6	8694.8	8727.0	8791.3	8860.2	8972.7	9110.5	9239.1	9349.3	9422.8	9418.2
55°	9278.1	9291.9	9370.0	9480.2	9592.8	9762.7	9967.1	10194.5	10378.2	10483.8	10417.2
57.5°	10036.0	10065.9	10153.1	10302.4	10470.0	10690.5	10970.7	11312.9	11597.7	11740.0	11632.1
60°	11076.3	11094.7	11200.4	11365.7	11567.8	11841.1	12215.4	12674.8	13076.7	13265.0	13141.0
62.5°	12447.4	12481.8	12566.8	12734.5	12941.2	13251.2	13708.2	14282.3	14783.0	15044.8	14764.6
65°	14084.8	14195.1	14266.3	14436.2	14629.1	14957.5	15435.2	16050.7	16588.1	16760.3	16436.5
67.5°	15706.2	15802.7	15926.7	16121.9	16317.1	16686.9	17130.1	17727.2	18317.4	18473.6	17970.6
70°	16415.9	16471.0	16663.9	16930.3	17304.6	17741.0	18253.1	18923.7	19654.0	19782.6	19144.2
72.5°	14994.3	15049.4	15265.3	15717.7	16369.9	17063.5	17956.9	18942.1	19906.6	20051.3	19171.7
75°	11340.4	11250.9	11570.1	12169.5	13049.1	14015.9	15265.3	16677.7	18071.7	18253.1	17203.6
77.5°	5860.8	5849.4	6090.5	6834.6	7884.1	8984.2	10359.8	11955.9	13320.1	13871.3	13016.9
80°	1651.2	1669.6	1784.4	2154.2	2767.4	3562.0	4636.8	6131.8	7248.0	7817.5	7339.8
82.5°	647.6	698.2	741.8	810.7	891.1	1008.2	1345.8	2002.6	2687.0	3210.6	2629.6
85°	232.0	248.0	351.4	415.7	422.6	445.5	507.5	592.5	714.2	852.0	700.5
87.5°	87.3	96.5	112.5	186.0	183.7	167.6	204.4	213.6	160.8	147.0	181.4
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):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	3545.9	3545.9	3545.9	3545.9	3545.9	3545.9	3545.9	3545.9
2.5°	3536.7	3539.0	3539.0	3541.3	3543.6	3543.6	3548.2	3548.2
5°	3539.0	3539.0	3534.4	3536.7	3534.4	3534.4	3536.7	3536.7
7.5°	3534.4	3532.1	3527.5	3525.2	3520.6	3520.6	3520.6	3520.6
10°	3527.5	3525.2	3520.6	3518.3	3516.0	3516.0	3516.0	3516.0
12.5°	3545.9	3539.0	3534.4	3532.1	3532.1	3532.1	3532.1	3532.1
15°	3594.1	3578.1	3566.6	3566.6	3568.9	3573.5	3573.5	3578.1
17.5°	3653.8	3635.5	3624.0	3614.8	3619.4	3626.3	3630.9	3635.5
20°	3725.0	3715.8	3699.8	3690.6	3690.6	3699.8	3704.4	3706.7
22.5°	3823.8	3816.9	3810.0	3798.5	3798.5	3803.1	3812.3	3812.3
25°	3970.8	3966.2	3961.6	3952.4	3950.1	3950.1	3954.7	3959.3
27.5°	4154.5	4156.8	4152.2	4149.9	4143.0	4140.7	4147.6	4145.3
30°	4400.2	4411.7	4423.2	4414.0	4402.5	4395.6	4388.7	4379.6
32.5°	4733.2	4719.4	4710.3	4694.2	4673.5	4655.1	4641.4	4625.3
35°	5047.9	5024.9	5015.7	5029.5	5027.2	5015.7	4999.6	4985.8
37.5°	5433.7	5429.1	5433.7	5458.9	5454.3	5465.8	5433.7	5431.4
40°	5920.5	5925.1	5957.3	5987.1	6003.2	6019.3	6000.9	5982.6
42.5°	6485.5	6483.2	6494.7	6536.0	6563.6	6582.0	6542.9	6538.3
45°	7082.6	7066.5	7075.7	7110.2	7137.7	7158.4	7114.8	7114.8
47.5°	7739.4	7711.9	7682.0	7721.1	7737.1	7750.9	7716.5	7705.0
50°	8472.0	8414.6	8350.3	8366.4	8366.4	8361.8	8318.2	8315.9
52.5°	9312.6	9206.9	9089.8	9046.2	9020.9	8993.4	8917.6	8880.8
55°	10279.4	10121.0	9937.2	9824.7	9765.0	9689.2	9562.9	9528.5
57.5°	11409.3	11161.3	10844.4	10706.6	10573.4	10449.4	10309.3	10270.2
60°	12748.2	12383.1	11962.8	11707.9	11563.2	11443.8	11299.1	11292.2
62.5°	14241.0	13664.6	13189.2	12959.5	12853.9	12748.2	12610.4	12628.8
65°	15759.0	15157.3	14711.8	14525.8	14427.0	14339.8	14202.0	14222.6
67.5°	17256.4	16702.9	16213.8	16023.1	15912.9	15802.7	15678.7	15699.3
70°	18331.2	17644.5	17093.3	16670.8	16406.7	16108.1	15915.2	15867.0
72.5°	18023.5	16964.7	16089.7	15251.5	14760.0	14360.4	14089.4	13972.3
75°	15598.3	14151.4	13026.1	11997.3	11418.5	10947.7	10605.5	10392.0
77.5°	11583.9	9957.9	8628.2	7443.2	6506.2	5876.9	5433.7	5146.6
80°	6340.8	4822.8	3525.2	2478.0	1821.2	1513.4	1336.6	1251.6
82.5°	1975.0	1274.6	939.3	810.7	753.3	721.1	668.3	583.3
85°	629.3	551.2	512.1	489.2	466.2	406.5	280.2	254.9
87.5°	243.4	250.3	248.0	234.2	238.8	172.2	137.8	121.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)