

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: P300583

Luminaire Tested: **GLNA-AF-09-LED-E1-RW-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300583
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24166)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-09-LED-E1-RW-7027
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND
Rectangular Wide Type I OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 47099.9 lumens
Efficiency: N/A
Efficacy: 94.0 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B5 - U0 - G5

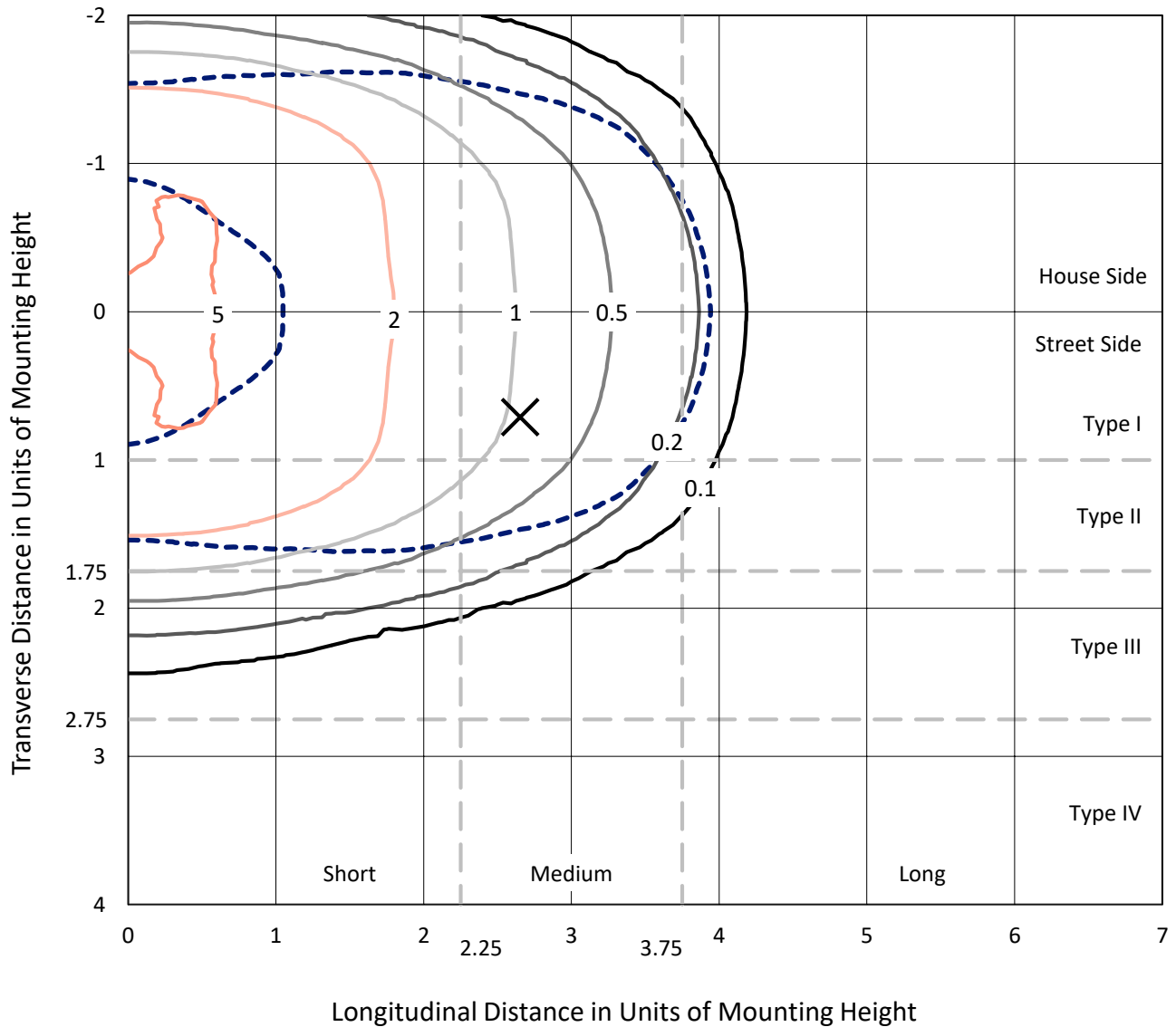
Input Watts (W): 501
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

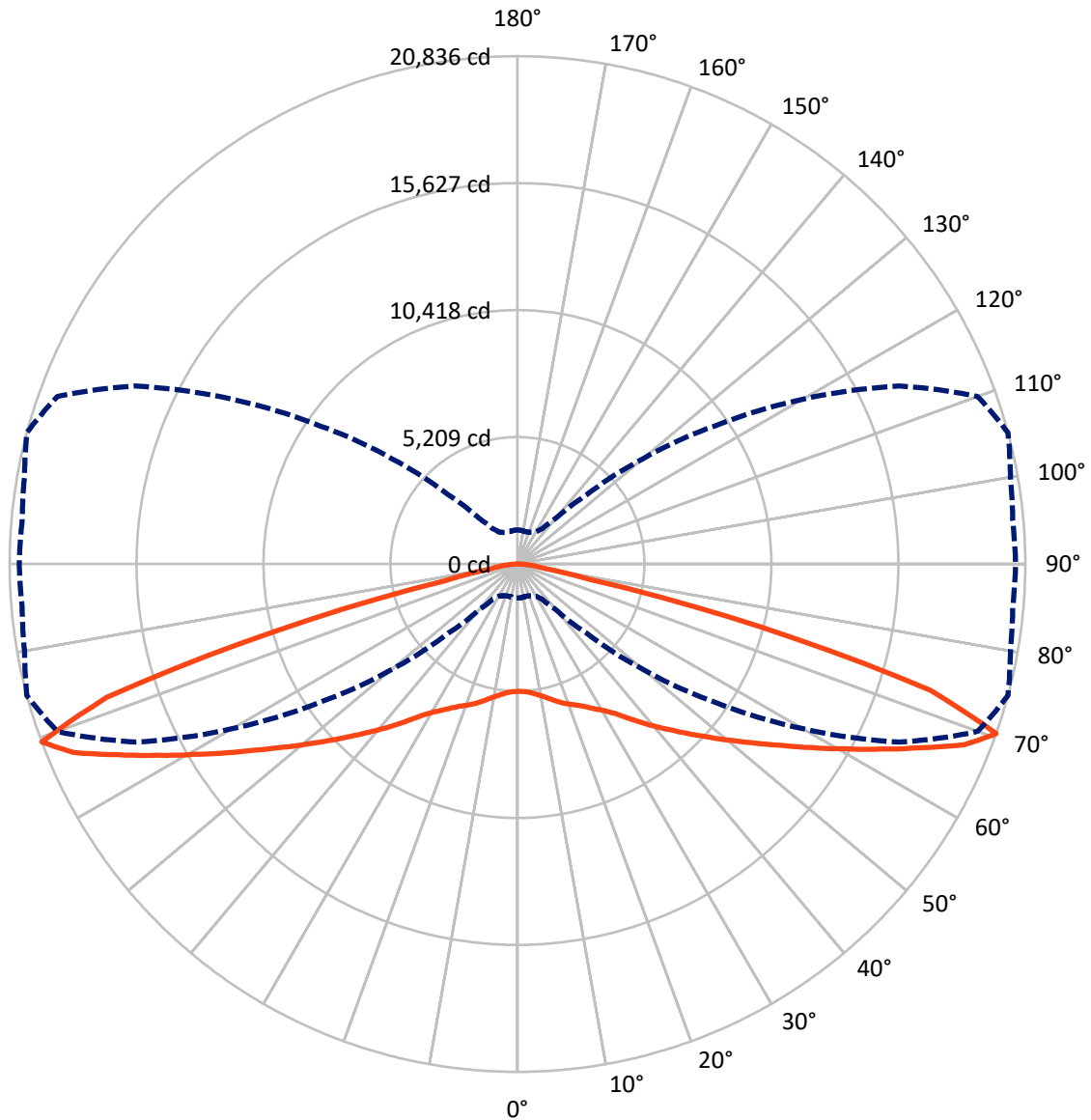
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 5.9 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	23550.0	0.0	23550.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	23550.0	0.0	23550.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	47099.9	0.0	47099.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	501.1	1.1
10°-20°	1556.9	3.3
20°-30°	2930.3	6.2
30°-40°	5189.0	11.0
40°-50°	8677.7	18.4
50°-60°	12092.4	25.7
60°-70°	11213.7	23.8
70°-80°	4469.0	9.5
80°-90°	469.8	1.0
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°	47099.9	100.0
0°-180°	47099.9	100.0



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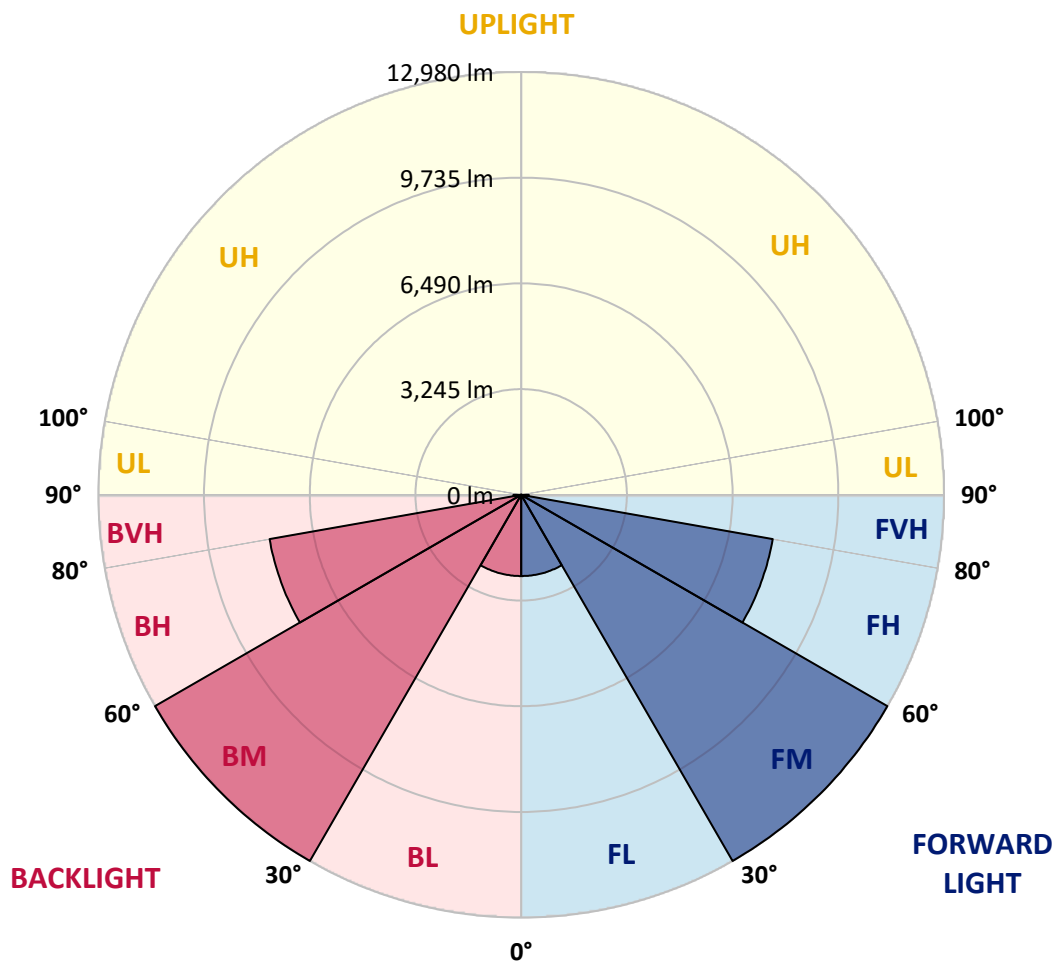
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2494.1	5.3			
FM	(30°-60°)	12979.6	27.6			
FH	(60°-80°)	7841.4	16.6			G4/12000
FVH	(80°-90°)	234.9	0.5			G3/500
BL	(0°-30°)	2494.1	5.3	B3/2500		
BM	(30°-60°)	12979.6	27.6	B5		
BH	(60°-80°)	7841.4	16.6	B5		G5
BVH	(80°-90°)	234.9	0.5			G3/500
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G5

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	5224.5	5224.5	5224.5	5224.5	5224.5	5224.5	5224.5	5224.5	5224.5	5224.5	5224.5
2.5°	5215.6	5211.1	5215.6	5213.3	5217.8	5217.8	5222.3	5231.2	5231.2	5237.8	5235.6
5°	5164.4	5162.1	5168.8	5175.5	5182.2	5195.5	5208.9	5228.9	5244.5	5255.6	5266.8
7.5°	5064.2	5064.2	5073.1	5088.7	5104.3	5133.2	5164.4	5204.4	5244.5	5277.9	5306.8
10°	4981.8	4986.3	4997.4	5024.1	5050.8	5095.4	5137.7	5195.5	5251.2	5306.8	5351.4
12.5°	4932.9	4939.5	4959.6	4999.6	5044.2	5104.3	5168.8	5242.3	5304.6	5371.4	5415.9
15°	4948.4	4952.9	4981.8	5030.8	5088.7	5164.4	5251.2	5338.0	5411.5	5482.7	5542.8
17.5°	5035.3	5041.9	5075.3	5131.0	5191.1	5280.1	5373.6	5471.6	5562.8	5643.0	5716.4
20°	5191.1	5197.8	5240.1	5300.2	5371.4	5462.7	5556.2	5658.6	5760.9	5845.5	5927.9
22.5°	5411.5	5422.6	5462.7	5522.8	5602.9	5700.8	5812.1	5921.2	6019.2	6097.1	6170.5
25°	5700.8	5725.3	5763.2	5830.0	5914.5	6003.6	6123.8	6235.1	6328.6	6402.0	6455.5
27.5°	6110.4	6143.8	6172.8	6237.3	6319.7	6404.3	6524.5	6622.4	6711.5	6782.7	6822.8
30°	6653.6	6687.0	6715.9	6778.2	6853.9	6934.1	7047.6	7134.4	7190.1	7245.7	7243.5
32.5°	7312.5	7348.1	7359.2	7426.0	7503.9	7590.7	7693.1	7742.1	7786.6	7793.3	7753.2
35°	8049.3	8067.1	8111.6	8200.7	8289.7	8360.9	8458.9	8483.4	8483.4	8450.0	8360.9
37.5°	8857.3	8868.5	8930.8	9031.0	9122.2	9195.7	9262.5	9311.5	9287.0	9215.7	9066.6
40°	9743.3	9763.3	9852.4	9941.4	10043.8	10112.8	10184.1	10193.0	10168.5	10063.9	9861.3
42.5°	10589.2	10607.0	10696.0	10836.3	10969.8	11065.6	11132.3	11145.7	11067.8	10972.1	10720.5
45°	11317.1	11363.8	11479.6	11644.3	11838.0	11973.8	12065.0	12102.9	12033.9	11909.2	11617.6
47.5°	11893.6	11940.4	12105.1	12301.0	12541.4	12761.8	12913.2	12993.3	12975.5	12882.0	12563.7
50°	12316.6	12361.1	12539.2	12779.6	13060.1	13333.9	13592.1	13783.5	13850.3	13808.0	13516.4
52.5°	12365.6	12439.0	12648.3	12971.0	13336.1	13710.1	14077.4	14402.4	14622.7	14656.1	14440.2
55°	11682.2	11755.6	12045.0	12523.6	13066.8	13676.7	14264.4	14812.0	15246.0	15468.6	15355.1
57.5°	10070.5	10201.9	10506.8	11067.8	11866.9	12779.6	13716.8	14689.5	15573.3	16163.2	16276.7
60°	7717.6	7873.4	8180.6	8777.2	9667.6	10756.1	12007.2	13445.2	15005.6	16332.3	17124.8
62.5°	4950.7	5097.6	5420.4	5939.0	6664.7	7844.5	9186.8	10894.2	12991.1	15085.8	16973.4
65°	2544.3	2624.5	2793.7	3107.5	3672.9	4554.4	5758.7	7461.6	9859.1	12443.5	15172.6
67.5°	1611.6	1627.2	1665.1	1709.6	1854.3	2159.2	2720.2	3782.0	5754.3	8450.0	11644.3
70°	1393.5	1393.5	1375.7	1369.0	1386.8	1429.1	1515.9	1763.0	2428.6	4011.3	6715.9
72.5°	1275.5	1262.2	1231.0	1206.5	1202.1	1202.1	1219.9	1257.7	1364.6	1633.9	2628.9
75°	1175.3	1137.5	1095.2	1066.3	1055.1	1044.0	1041.8	1048.5	1070.7	1113.0	1255.5
77.5°	1052.9	1003.9	955.0	926.0	912.7	897.1	883.7	868.1	857.0	870.4	932.7
80°	906.0	850.3	812.5	794.7	781.3	759.1	730.1	703.4	678.9	674.5	712.3
82.5°	730.1	665.6	667.8	674.5	650.0	618.8	587.7	558.7	516.4	494.2	516.4
85°	589.9	556.5	540.9	583.2	547.6	500.9	451.9	400.7	333.9	280.5	305.0
87.5°	229.3	229.3	342.8	527.6	474.1	387.3	331.7	282.7	175.9	135.8	138.0
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°	5224.5	5224.5	5224.5	5224.5	5224.5	5224.5	5224.5	5224.5
2.5°	5233.4	5237.8	5235.6	5233.4	5233.4	5231.2	5233.4	5233.4
5°	5273.4	5284.6	5284.6	5289.0	5289.0	5291.3	5293.5	5291.3
7.5°	5333.6	5353.6	5366.9	5382.5	5384.8	5387.0	5391.4	5387.0
10°	5393.7	5433.7	5462.7	5491.6	5505.0	5509.4	5513.9	5513.9
12.5°	5469.3	5525.0	5576.2	5627.4	5651.9	5665.2	5665.2	5674.1
15°	5594.0	5649.6	5709.7	5778.8	5821.1	5843.3	5850.0	5850.0
17.5°	5769.9	5818.8	5870.0	5936.8	5990.2	6019.2	6025.8	6023.6
20°	5974.6	6021.4	6050.3	6092.6	6139.4	6172.8	6181.7	6181.7
22.5°	6208.4	6235.1	6239.5	6252.9	6290.7	6335.3	6355.3	6359.7
25°	6466.6	6473.3	6455.5	6455.5	6480.0	6522.2	6542.3	6544.5
27.5°	6800.5	6767.1	6722.6	6707.0	6722.6	6771.6	6796.0	6805.0
30°	7216.8	7136.6	7034.2	6978.6	6969.7	7034.2	7078.8	7085.4
32.5°	7693.1	7577.4	7441.6	7328.1	7299.1	7339.2	7392.6	7390.4
35°	8258.5	8120.5	7955.8	7811.1	7744.3	7784.4	7860.1	7869.0
37.5°	8910.8	8730.5	8541.3	8358.7	8254.1	8265.2	8345.4	8372.1
40°	9638.7	9404.9	9166.8	8921.9	8772.8	8743.8	8841.8	8857.3
42.5°	10417.8	10117.3	9816.8	9514.0	9322.6	9278.1	9391.6	9384.9
45°	11248.1	10865.2	10513.5	10179.6	9952.6	9885.8	9979.3	9979.3
47.5°	12140.7	11668.8	11250.3	10871.9	10624.8	10529.1	10618.1	10624.8
50°	13086.8	12585.9	12094.0	11673.3	11377.2	11254.8	11370.5	11388.3
52.5°	14028.4	13540.9	13044.5	12563.7	12205.3	12056.1	12189.7	12247.6
55°	14983.4	14504.8	14030.6	13560.9	13135.8	12959.9	13102.4	13175.8
57.5°	15991.8	15548.8	15096.9	14622.7	14213.2	13939.4	14090.7	14188.7
60°	17173.8	16795.3	16325.7	15802.5	15388.5	15110.2	15197.1	15283.9
62.5°	18108.7	18255.6	17857.2	17251.7	16719.7	16363.5	16448.1	16539.4
65°	17656.8	19163.8	19517.8	18905.6	18168.8	17614.5	17578.9	17625.7
67.5°	14758.5	17685.8	19820.5	20403.7	19787.1	19016.9	18874.5	18943.5
70°	9872.4	13518.6	17285.1	20089.9	20835.6	20537.3	20397.1	20439.3
72.5°	4741.4	7873.4	11726.7	15455.3	17725.8	18767.6	19101.5	19264.0
75°	1734.1	3125.3	5651.9	8516.8	10282.0	11902.5	12959.9	13391.8
77.5°	1046.2	1262.2	1805.3	2718.0	3078.6	3445.9	3303.4	3374.7
80°	774.7	874.8	990.6	1113.0	1153.1	1153.1	1108.6	1072.9
82.5°	543.1	607.7	663.4	730.1	747.9	714.6	587.7	467.5
85°	349.5	378.4	402.9	445.2	434.1	414.0	278.3	247.1
87.5°	160.3	182.5	191.4	211.5	202.6	193.7	138.0	115.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)