

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: P300586

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P300586
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
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 4000K 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: 54210.2 lumens
Efficiency: N/A
Efficacy: 108.2 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

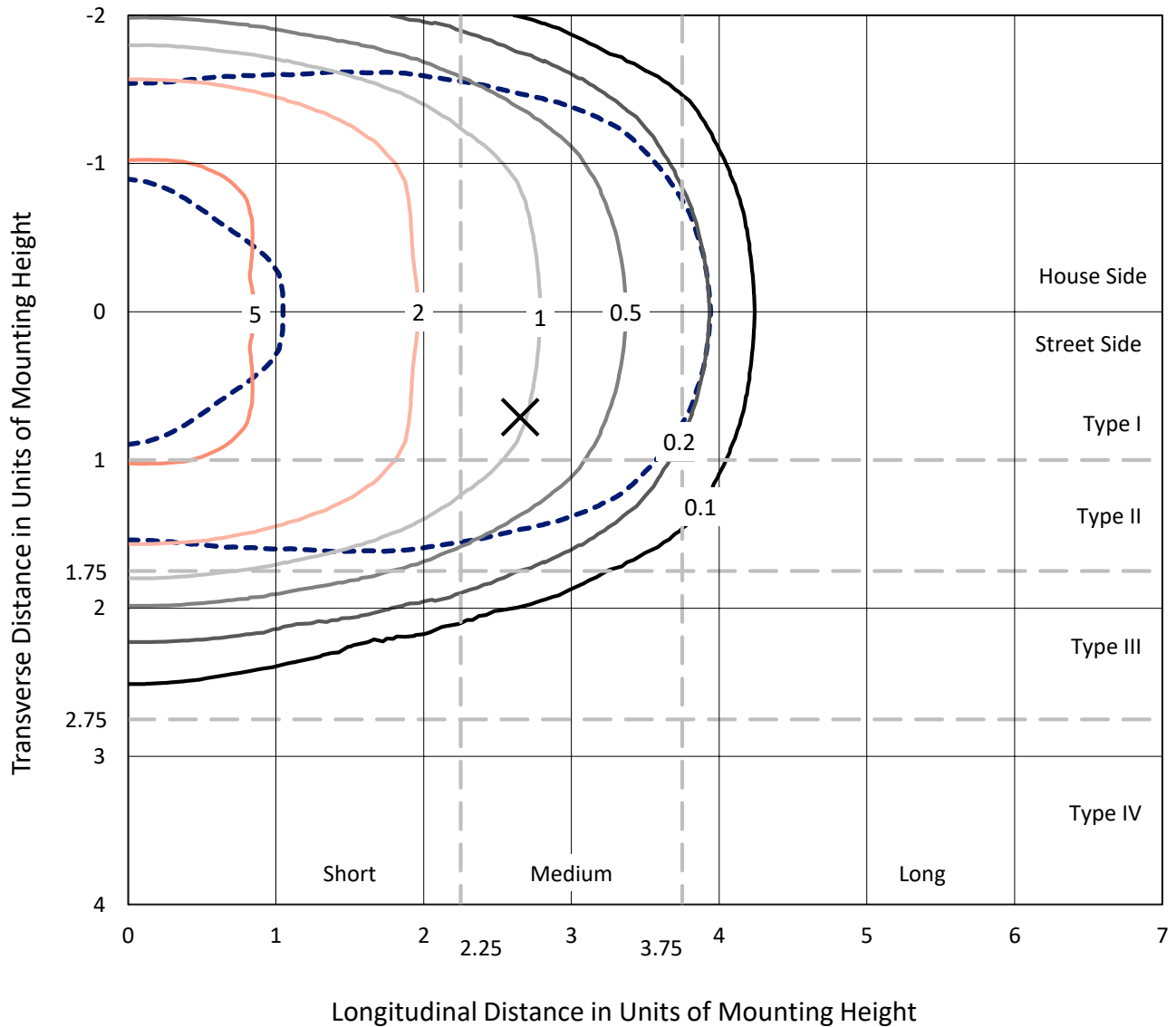


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

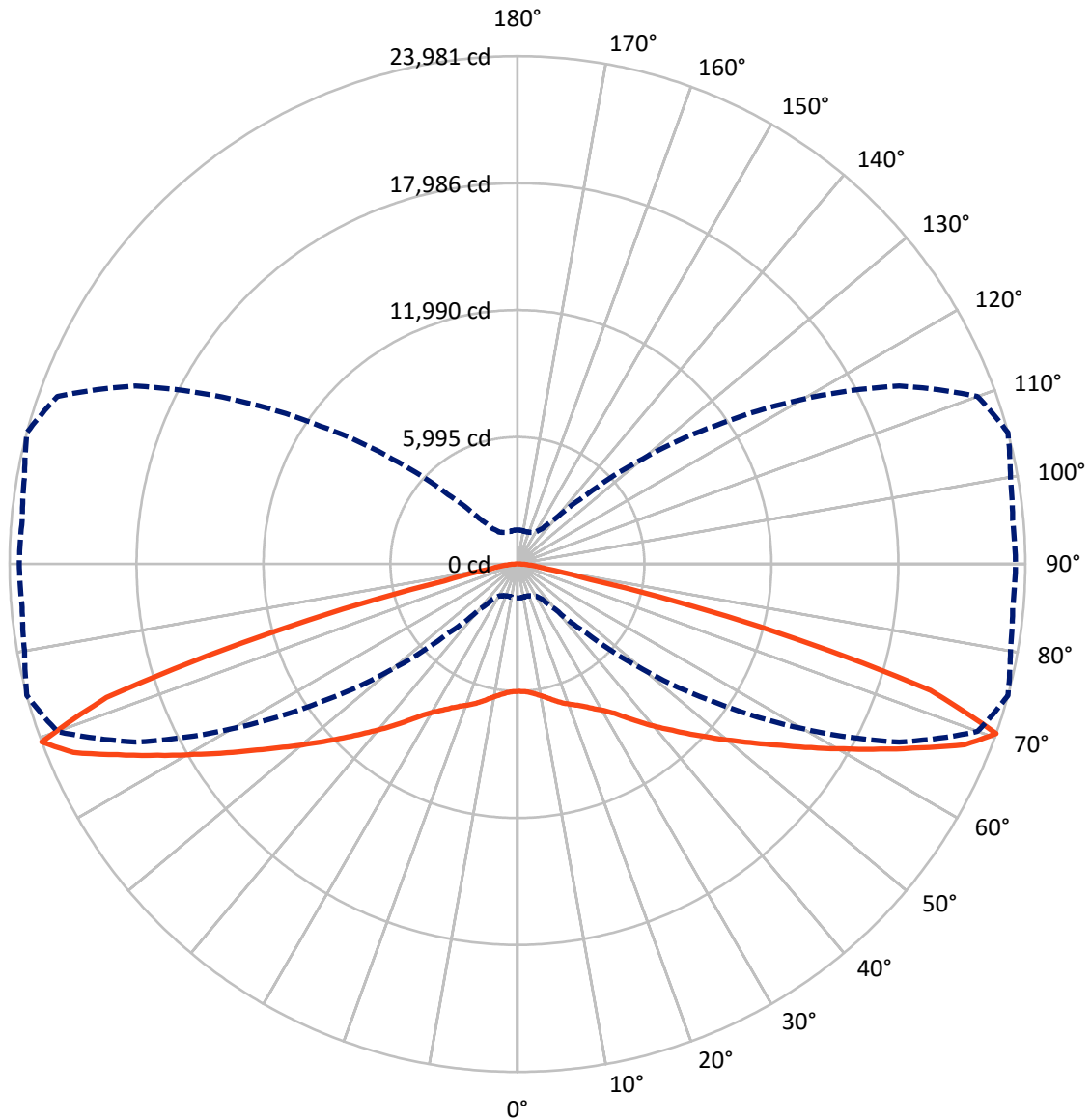


Based on 30 foot mounting height. Maximum calculated value = 6.8 fc
 Type II - Medium - Full Cutoff

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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	27105.1	0.0	27105.1
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	27105.1	0.0	27105.1
	% Fixture	50.0	0.0	50.0
Total	Lumens	54210.2	0.0	54210.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	576.7	1.1
10°-20°	1791.9	3.3
20°-30°	3372.7	6.2
30°-40°	5972.4	11.0
40°-50°	9987.7	18.4
50°-60°	13917.9	25.7
60°-70°	12906.6	23.8
70°-80°	5143.7	9.5
80°-90°	540.7	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°	54210.2	100.0
0°-180°	54210.2	100.0



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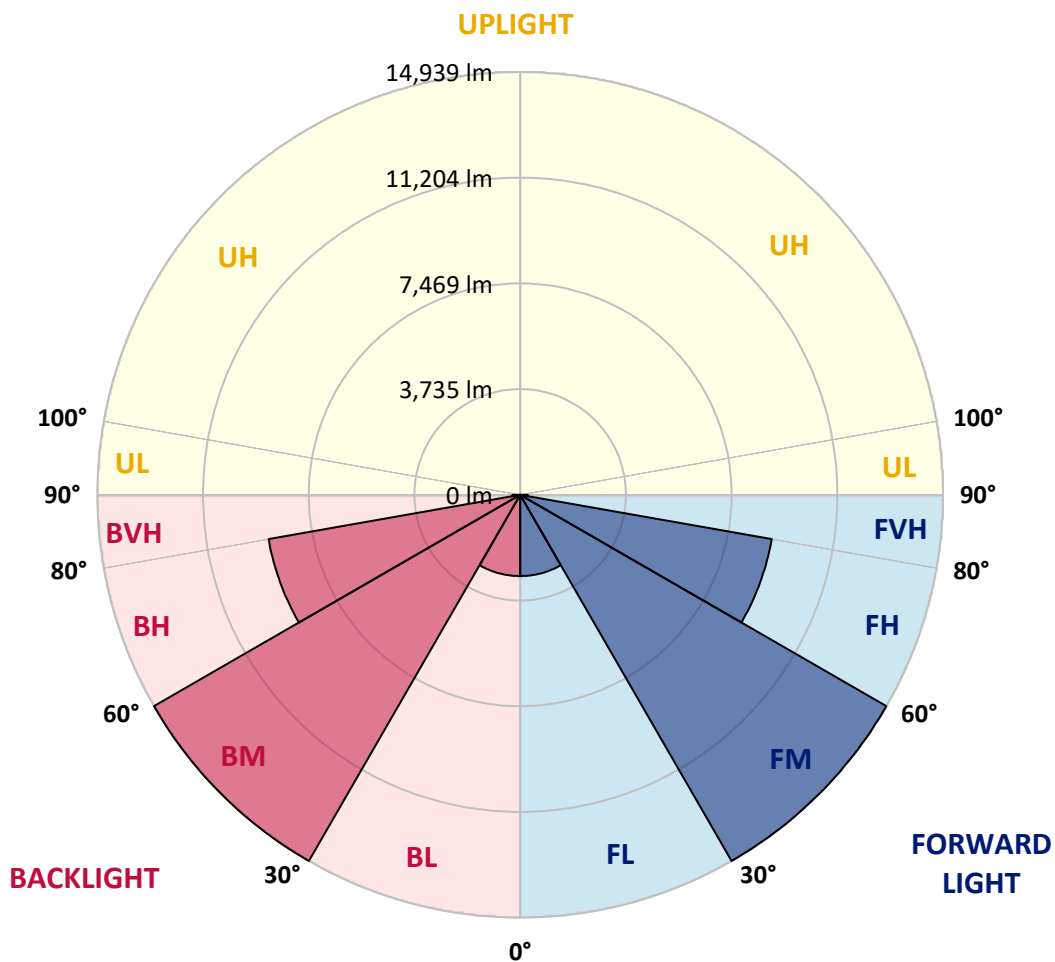
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2870.7	5.3			
FM (30°-60°)	14939.0	27.6			
FH (60°-80°)	9025.1	16.6			G4/12000
FVH (80°-90°)	270.3	0.5			G3/500
BL (0°-30°)	2870.7	5.3	B4/5000		
BM (30°-60°)	14939.0	27.6	B5		
BH (60°-80°)	9025.1	16.6	B5		G5
BVH (80°-90°)	270.3	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°	6013.2	6013.2	6013.2	6013.2	6013.2	6013.2	6013.2	6013.2	6013.2	6013.2	6013.2
2.5°	6002.9	5997.8	6002.9	6000.4	6005.5	6005.5	6010.6	6020.9	6020.9	6028.5	6026.0
5°	5944.0	5941.4	5949.1	5956.8	5964.5	5979.9	5995.2	6018.3	6036.2	6049.0	6061.9
7.5°	5828.7	5828.7	5839.0	5856.9	5874.8	5908.1	5944.0	5990.1	6036.2	6074.7	6108.0
10°	5733.9	5739.0	5751.8	5782.6	5813.3	5864.6	5913.3	5979.9	6043.9	6108.0	6159.2
12.5°	5677.5	5685.2	5708.3	5754.4	5805.6	5874.8	5949.1	6033.7	6105.4	6182.3	6233.5
15°	5695.5	5700.6	5733.9	5790.3	5856.9	5944.0	6043.9	6143.8	6228.4	6310.4	6379.5
17.5°	5795.4	5803.1	5841.5	5905.6	5974.7	6077.2	6184.8	6297.6	6402.6	6494.8	6579.4
20°	5974.7	5982.4	6031.1	6100.3	6182.3	6287.3	6394.9	6512.8	6630.6	6728.0	6822.8
22.5°	6228.4	6241.2	6287.3	6356.5	6448.7	6561.5	6689.6	6815.1	6927.8	7017.5	7102.1
25°	6561.5	6589.6	6633.2	6710.1	6807.4	6909.9	7048.2	7176.4	7284.0	7368.5	7430.0
27.5°	7032.9	7071.3	7104.6	7178.9	7273.7	7371.1	7509.4	7622.1	7724.6	7806.6	7852.7
30°	7658.0	7696.4	7729.8	7801.5	7888.6	7980.8	8111.5	8211.4	8275.5	8339.5	8337.0
32.5°	8416.4	8457.4	8470.2	8547.1	8636.7	8736.6	8854.5	8910.9	8962.1	8969.8	8923.7
35°	9264.4	9284.9	9336.2	9438.7	9541.1	9623.1	9735.9	9764.0	9764.0	9725.6	9623.1
37.5°	10194.5	10207.3	10279.0	10394.3	10499.4	10583.9	10660.8	10717.1	10688.9	10607.0	10435.3
40°	11214.2	11237.2	11339.7	11442.2	11560.0	11639.5	11721.5	11731.7	11703.5	11583.1	11350.0
42.5°	12187.8	12208.3	12310.7	12472.1	12625.9	12736.0	12812.9	12828.3	12738.6	12628.4	12338.9
45°	13025.5	13079.4	13212.6	13402.2	13625.1	13781.4	13886.4	13930.0	13850.5	13707.1	13371.4
47.5°	13689.1	13742.9	13932.5	14158.0	14434.7	14688.3	14862.6	14954.8	14934.3	14826.7	14460.3
50°	14175.9	14227.2	14432.1	14708.8	15031.6	15346.8	15644.0	15864.3	15941.2	15892.5	15556.9
52.5°	14232.3	14316.8	14557.7	14929.2	15349.3	15779.8	16202.5	16576.6	16830.2	16868.7	16620.1
55°	13445.7	13530.3	13863.3	14414.2	15039.3	15741.3	16417.7	17048.0	17547.6	17803.8	17673.1
57.5°	11590.8	11742.0	12093.0	12738.6	13658.4	14708.8	15787.5	16907.1	17924.2	18603.2	18733.8
60°	8882.7	9062.0	9415.6	10102.2	11127.1	12379.9	13819.8	15474.9	17270.9	18797.9	19710.0
62.5°	5698.0	5867.1	6238.6	6835.6	7670.8	9028.7	10573.7	12538.8	14952.2	17363.1	19535.8
65°	2928.4	3020.7	3215.4	3576.6	4227.4	5242.0	6628.1	8588.0	11347.4	14322.0	17463.1
67.5°	1854.9	1872.9	1916.4	1967.7	2134.2	2485.2	3130.8	4353.0	6622.9	9725.6	13402.2
70°	1603.9	1603.9	1583.4	1575.7	1596.2	1644.8	1744.8	2029.2	2795.2	4616.8	7729.8
72.5°	1468.1	1452.7	1416.8	1388.6	1383.5	1383.5	1404.0	1447.6	1570.5	1880.6	3025.8
75°	1352.8	1309.2	1260.5	1227.2	1214.4	1201.6	1199.0	1206.7	1232.4	1281.0	1445.0
77.5°	1211.9	1155.5	1099.1	1065.8	1050.4	1032.5	1017.1	999.2	986.4	1001.8	1073.5
80°	1042.8	978.7	935.2	914.7	899.3	873.7	840.4	809.6	781.4	776.3	819.9
82.5°	840.4	766.1	768.6	776.3	748.1	712.3	676.4	643.1	594.4	568.8	594.4
85°	678.9	640.5	622.6	671.3	630.3	576.5	520.1	461.2	384.3	322.8	351.0
87.5°	263.9	263.9	394.6	607.2	545.7	445.8	381.7	325.4	202.4	156.3	158.8
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°	6013.2	6013.2	6013.2	6013.2	6013.2	6013.2	6013.2	6013.2
2.5°	6023.4	6028.5	6026.0	6023.4	6023.4	6020.9	6023.4	6023.4
5°	6069.5	6082.3	6082.3	6087.5	6087.5	6090.0	6092.6	6090.0
7.5°	6138.7	6161.8	6177.1	6195.1	6197.6	6200.2	6205.3	6200.2
10°	6207.9	6254.0	6287.3	6320.6	6336.0	6341.1	6346.2	6346.2
12.5°	6295.0	6359.1	6418.0	6476.9	6505.1	6520.5	6520.5	6530.7
15°	6438.5	6502.5	6571.7	6651.1	6699.8	6725.4	6733.1	6733.1
17.5°	6640.9	6697.2	6756.2	6833.0	6894.5	6927.8	6935.5	6933.0
20°	6876.6	6930.4	6963.7	7012.4	7066.2	7104.6	7114.9	7114.9
22.5°	7145.6	7176.4	7181.5	7196.8	7240.4	7291.6	7314.7	7319.8
25°	7442.8	7450.5	7430.0	7430.0	7458.2	7506.9	7529.9	7532.5
27.5°	7827.1	7788.7	7737.4	7719.5	7737.4	7793.8	7822.0	7832.2
30°	8306.2	8214.0	8096.1	8032.1	8021.8	8096.1	8147.4	8155.1
32.5°	8854.5	8721.3	8565.0	8434.3	8401.0	8447.1	8508.6	8506.1
35°	9505.3	9346.4	9156.8	8990.3	8913.4	8959.5	9046.7	9056.9
37.5°	10256.0	10048.4	9830.7	9620.6	9500.1	9513.0	9605.2	9635.9
40°	11093.8	10824.7	10550.6	10268.8	10097.1	10063.8	10176.5	10194.5
42.5°	11990.5	11644.6	11298.7	10950.3	10729.9	10678.7	10809.4	10801.7
45°	12946.1	12505.5	12100.6	11716.3	11455.0	11378.1	11485.7	11485.7
47.5°	13973.5	13430.4	12948.7	12513.1	12228.7	12118.6	12221.1	12228.7
50°	15062.4	14485.9	13919.7	13435.5	13094.7	12953.8	13087.0	13107.5
52.5°	16146.1	15585.1	15013.7	14460.3	14047.8	13876.2	14029.9	14096.5
55°	17245.3	16694.4	16148.7	15608.1	15118.8	14916.4	15080.3	15164.9
57.5°	18405.9	17896.0	17375.9	16830.2	16358.8	16043.7	16217.9	16330.6
60°	19766.3	19330.8	18790.2	18188.1	17711.6	17391.3	17491.2	17591.2
62.5°	20842.4	21011.5	20552.9	19856.0	19243.7	18833.8	18931.1	19036.2
65°	20322.3	22056.8	22464.2	21759.6	20911.6	20273.6	20232.6	20286.4
67.5°	16986.5	20355.6	22812.6	23483.9	22774.2	21887.7	21723.8	21803.2
70°	11362.8	15559.4	19894.5	23122.7	23980.9	23637.6	23476.2	23524.9
72.5°	5457.2	9062.0	13497.0	17788.4	20401.7	21600.8	21985.1	22172.1
75°	1995.9	3597.1	6505.1	9802.5	11834.2	13699.4	14916.4	15413.4
77.5°	1204.2	1452.7	2077.8	3128.3	3543.3	3966.1	3802.1	3884.1
80°	891.6	1006.9	1140.1	1281.0	1327.2	1327.2	1275.9	1234.9
82.5°	625.1	699.4	763.5	840.4	860.9	822.4	676.4	538.0
85°	402.2	435.6	463.7	512.4	499.6	476.5	320.3	284.4
87.5°	184.5	210.1	220.3	243.4	233.1	222.9	158.8	133.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)