

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: P299384

Luminaire Tested: **GLNA-AF-09-LED-E1-5NQ-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299384
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24141)
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-E1-5NQ-7030
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 52913.1 lumens
Efficiency: N/A
Efficacy: 105.6 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type V - Short - Full Cutoff
BUG Rating: B5 - U0 - G4

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

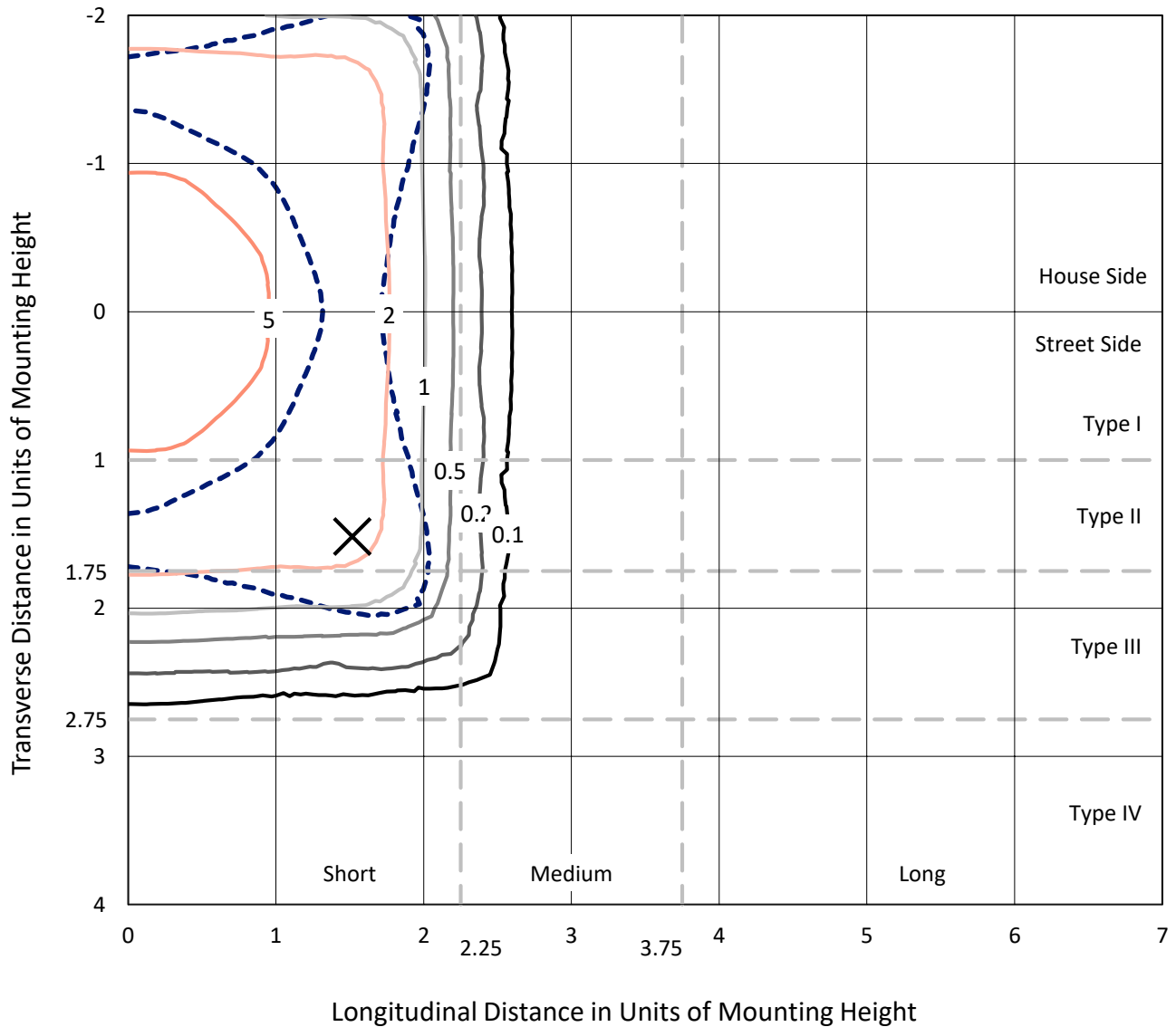


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Iso-Footcandle Lines of Horizontal Illumination

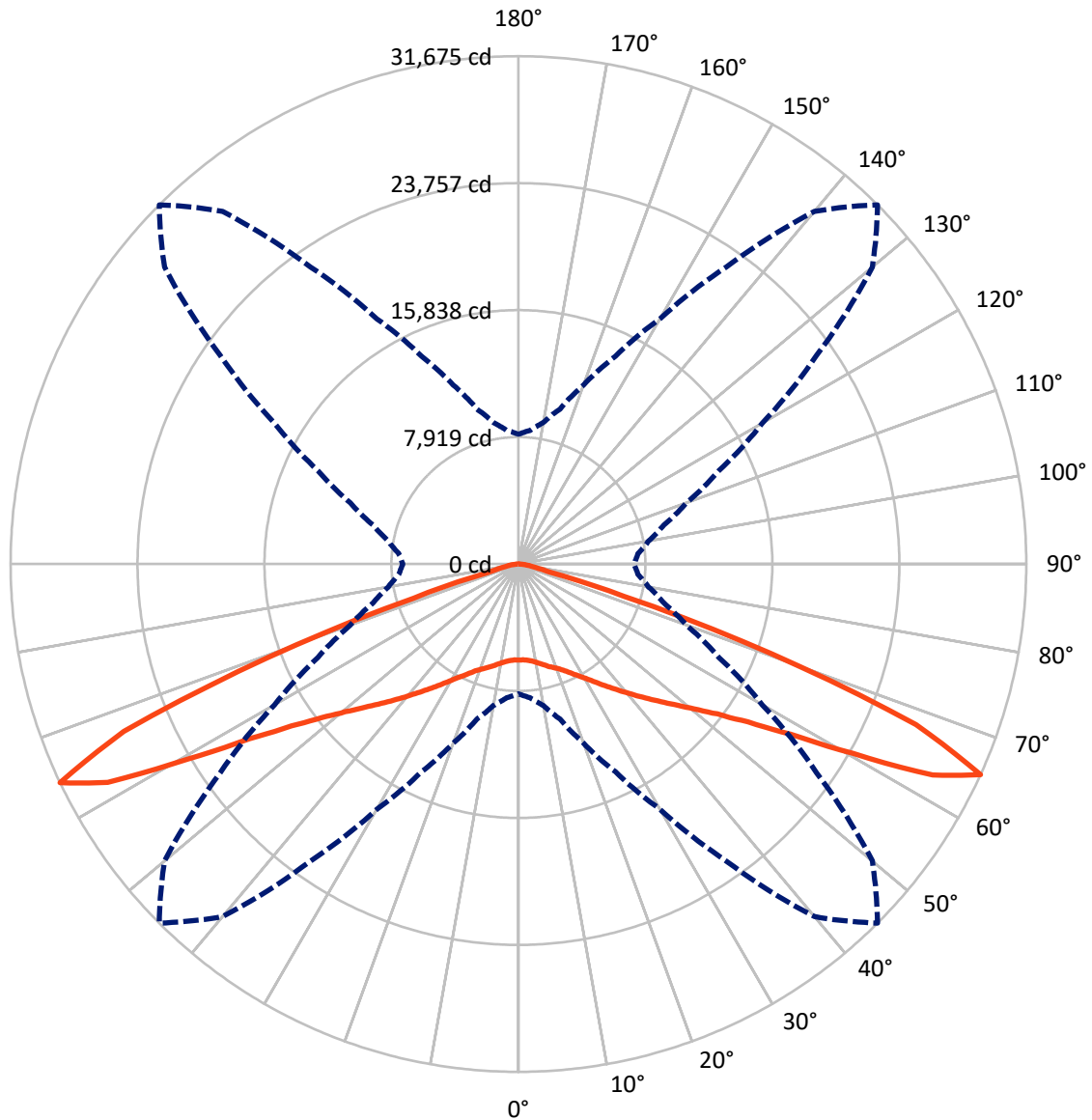
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.7 fc
 Type V - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	26456.6	0.0	26456.6
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	26456.6	0.0	26456.6
	% Fixture	50.0	0.0	50.0
Total	Lumens	52913.1	0.0	52913.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	583.6	1.1
10°-20°	1871.6	3.5
20°-30°	3499.5	6.6
30°-40°	5918.6	11.2
40°-50°	9677.5	18.3
50°-60°	15388.8	29.1
60°-70°	13910.4	26.3
70°-80°	1760.4	3.3
80°-90°	302.8	0.6
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°	52913.1	100.0
0°-180°	52913.1	100.0

Coefficient of Utilization



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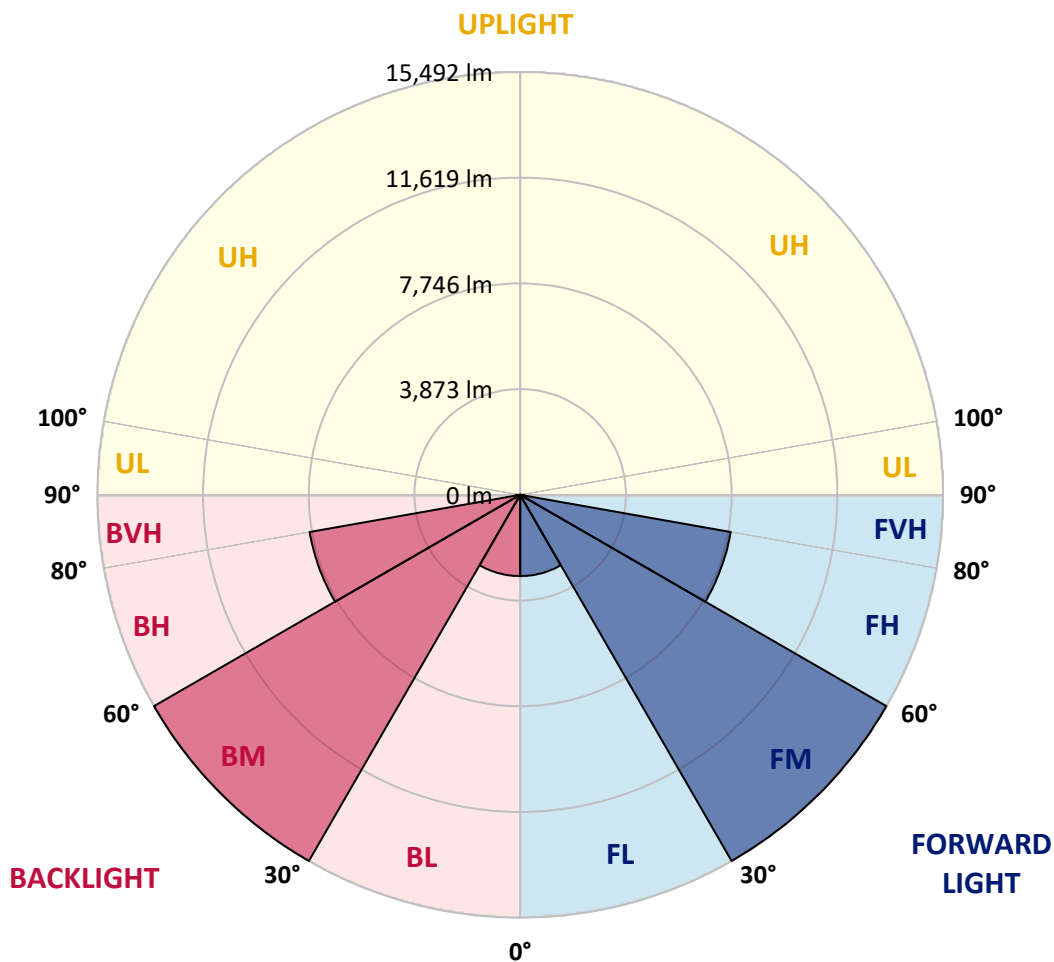
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2977.3	5.6			
FM	(30°-60°)	15492.4	29.3			
FH	(60°-80°)	7835.4	14.8			G4/12000
FVH	(80°-90°)	151.4	0.3			G2/225
BL	(0°-30°)	2977.3	5.6	B4/5000		
BM	(30°-60°)	15492.4	29.3	B5		
BH	(60°-80°)	7835.4	14.8	B5		G4/12000
BVH	(80°-90°)	151.4	0.3			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B5-U0-G4

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	5987.2	5987.2	5987.2	5987.2	5987.2	5987.2	5987.2	5987.2	5987.2	5987.2	5987.2
2.5°	5992.1	5997.1	6002.0	5997.1	6002.0	5994.6	5989.6	5997.1	5989.6	5982.2	5987.2
5°	6044.1	6046.6	6046.6	6039.2	6046.6	6041.7	6034.2	6044.1	6036.7	6029.3	6034.2
7.5°	6130.9	6140.8	6133.4	6125.9	6130.9	6125.9	6121.0	6123.4	6121.0	6113.5	6116.0
10°	6247.4	6254.8	6249.8	6247.4	6252.3	6249.8	6244.9	6242.4	6244.9	6237.4	6237.4
12.5°	6388.6	6386.1	6383.7	6386.1	6393.6	6393.6	6391.1	6393.6	6398.5	6401.0	6396.0
15°	6527.4	6532.3	6532.3	6532.3	6547.2	6559.6	6567.0	6572.0	6581.9	6584.4	6574.5
17.5°	6700.9	6700.9	6698.4	6700.9	6715.7	6735.5	6743.0	6752.9	6762.8	6770.2	6757.8
20°	6894.1	6899.1	6899.1	6904.1	6923.9	6946.2	6946.2	6951.1	6946.2	6951.1	6943.7
22.5°	7129.6	7144.4	7144.4	7146.9	7166.7	7194.0	7186.6	7194.0	7181.6	7191.5	7181.6
25°	7436.9	7459.2	7454.2	7454.2	7469.1	7486.4	7488.9	7503.8	7501.3	7513.7	7506.2
27.5°	7783.8	7818.5	7828.4	7825.9	7835.8	7853.2	7858.1	7875.5	7865.6	7875.5	7870.5
30°	8200.1	8215.0	8234.8	8242.2	8254.6	8272.0	8272.0	8274.5	8262.1	8276.9	8284.4
32.5°	8631.3	8658.6	8678.4	8723.0	8745.3	8757.7	8755.2	8760.2	8747.8	8767.6	8782.5
35°	9201.3	9221.1	9253.3	9288.0	9317.8	9315.3	9307.8	9310.3	9310.3	9327.7	9342.5
37.5°	9887.7	9892.7	9934.8	9984.4	9999.2	9984.4	9939.8	9929.8	9907.5	9929.8	9954.6
40°	10613.8	10631.2	10715.4	10747.6	10755.1	10727.8	10663.4	10626.2	10576.6	10603.9	10638.6
42.5°	11374.6	11409.3	11486.1	11543.1	11567.9	11550.5	11461.3	11404.3	11339.9	11354.8	11389.5
45°	12217.2	12259.3	12368.3	12422.8	12469.9	12442.7	12355.9	12269.2	12167.6	12175.0	12229.5
47.5°	13158.8	13201.0	13342.2	13433.9	13458.7	13453.7	13357.1	13238.1	13099.4	13094.4	13141.5
50°	14214.5	14256.7	14432.6	14573.9	14645.7	14638.3	14524.3	14355.8	14187.3	14189.7	14249.2
52.5°	15245.4	15297.5	15480.8	15723.7	15865.0	15966.6	15897.2	15738.6	15532.9	15537.8	15592.4
55°	16211.9	16298.6	16509.3	16838.9	17101.5	17386.5	17468.3	17463.3	17339.4	17374.1	17428.7
57.5°	16680.3	16809.1	17133.8	17654.2	18189.4	18769.3	19260.0	19626.8	19782.9	20018.3	19963.8
60°	15793.1	15998.8	16477.1	17242.8	18301.0	19510.3	20806.3	22072.7	23153.1	23968.4	23500.1
62.5°	12930.9	13198.5	13778.4	14759.7	16360.6	18296.0	20776.6	23770.2	27031.4	28999.0	27593.9
65°	8091.1	8368.6	8958.4	10009.1	11882.6	14288.9	17654.2	22615.4	28709.1	31675.4	28815.6
67.5°	3154.7	3305.8	3625.5	4297.1	5704.6	7845.7	11223.4	16853.7	24141.9	26741.4	23693.4
70°	1581.0	1595.9	1655.4	1779.3	2081.6	2703.6	4113.7	7813.5	13845.3	16722.4	13347.2
72.5°	1142.4	1144.9	1174.6	1229.2	1325.8	1464.6	1732.2	2391.4	4502.8	6881.8	4220.2
75°	874.8	884.7	902.0	931.8	983.8	1053.2	1149.9	1377.8	1707.4	1980.0	1665.3
77.5°	674.1	693.9	706.3	733.5	765.7	812.8	840.1	926.8	1078.0	1135.0	1117.6
80°	513.0	530.3	557.6	579.9	602.2	624.5	614.6	654.2	733.5	780.6	755.8
82.5°	327.1	346.9	426.2	446.1	456.0	470.8	453.5	456.0	490.7	520.4	490.7
85°	210.6	223.0	270.1	294.9	297.4	307.3	299.9	282.5	282.5	257.7	289.9
87.5°	96.6	99.1	121.4	143.7	148.7	133.8	131.3	126.4	101.6	96.6	104.1
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°	5987.2	5987.2	5987.2	5987.2	5987.2	5987.2	5987.2	5987.2
2.5°	5984.7	5989.6	5992.1	5999.5	6002.0	6002.0	6004.5	6009.5
5°	6031.8	6039.2	6041.7	6051.6	6054.1	6051.6	6056.5	6059.0
7.5°	6116.0	6128.4	6133.4	6143.3	6135.8	6145.8	6148.2	6148.2
10°	6239.9	6252.3	6254.8	6264.7	6259.7	6264.7	6264.7	6259.7
12.5°	6403.5	6406.0	6398.5	6406.0	6396.0	6401.0	6393.6	6388.6
15°	6584.4	6576.9	6559.6	6559.6	6544.7	6547.2	6544.7	6542.3
17.5°	6760.3	6745.5	6733.1	6728.1	6715.7	6713.2	6705.8	6705.8
20°	6953.6	6946.2	6938.8	6928.8	6916.4	6904.1	6901.6	6906.5
22.5°	7186.6	7184.1	7184.1	7179.1	7161.8	7149.4	7142.0	7142.0
25°	7498.8	7476.5	7476.5	7474.0	7466.6	7459.2	7444.3	7451.7
27.5°	7850.7	7838.3	7848.2	7845.7	7838.3	7838.3	7828.4	7828.4
30°	8284.4	8279.4	8294.3	8281.9	8257.1	8254.6	8244.7	8232.3
32.5°	8785.0	8780.0	8802.3	8787.4	8747.8	8725.5	8705.7	8695.7
35°	9342.5	9345.0	9372.3	9362.4	9317.8	9302.9	9268.2	9263.2
37.5°	9952.2	9991.8	10038.9	10048.8	10011.6	10001.7	9964.5	9944.7
40°	10668.3	10720.4	10792.2	10809.6	10769.9	10762.5	10710.5	10683.2
42.5°	11431.6	11520.8	11610.0	11624.9	11585.2	11545.6	11496.0	11476.2
45°	12284.1	12390.6	12507.1	12536.8	12477.4	12430.3	12365.8	12365.8
47.5°	13240.6	13374.4	13505.8	13587.6	13533.0	13483.5	13406.7	13357.1
50°	14370.6	14554.0	14725.0	14809.3	14722.5	14628.4	14494.6	14449.9
52.5°	15788.1	15986.4	16135.1	16090.5	15956.6	15825.3	15679.1	15619.6
55°	17597.2	17664.1	17664.1	17495.6	17227.9	17007.4	16776.9	16700.1
57.5°	19859.7	19602.0	19205.5	18702.4	18070.5	17520.3	17148.6	16972.7
60°	22518.7	21279.7	19879.5	18504.2	17374.1	16442.4	15889.7	15637.0
62.5°	24290.6	21049.2	18244.0	16035.9	14410.3	13287.7	12524.4	12227.1
65°	22702.1	17555.0	13798.2	11156.5	9384.7	8242.2	7486.4	7208.9
67.5°	16628.2	11000.4	7347.6	5266.0	3858.4	3077.8	2768.1	2639.2
70°	7464.1	3873.3	2374.0	1853.6	1598.4	1467.1	1410.1	1390.2
72.5°	2250.1	1628.1	1372.9	1239.1	1137.5	1073.0	1025.9	1021.0
75°	1358.0	1130.0	1003.6	924.3	859.9	807.9	783.1	775.7
77.5°	949.1	830.2	770.7	713.7	664.1	624.5	602.2	584.8
80°	666.6	609.6	582.4	550.1	517.9	480.8	448.5	433.7
82.5°	446.1	433.7	433.7	413.8	386.6	351.9	287.5	272.6
85°	287.5	285.0	289.9	282.5	262.7	225.5	185.9	175.9
87.5°	133.8	136.3	151.2	148.7	143.7	119.0	94.2	89.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)