

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: P299389

Luminaire Tested: **GLNA-AF-10-LED-E1-5NQ-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299389
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-10-LED-E1-5NQ-7027
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 2700K 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: 52621.3 lumens
Efficiency: N/A
Efficacy: 94.3 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

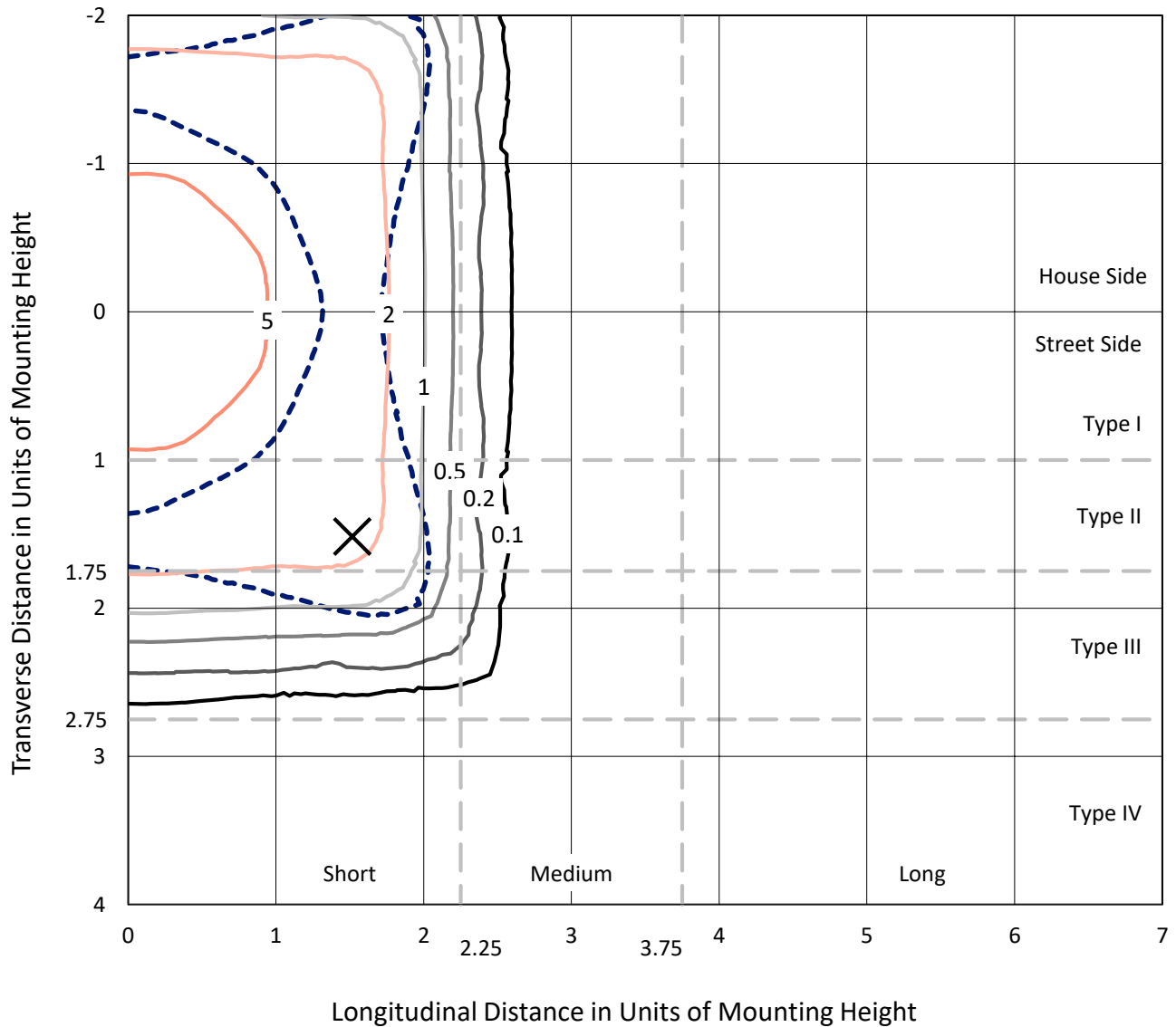
Input Watts (W): 558
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

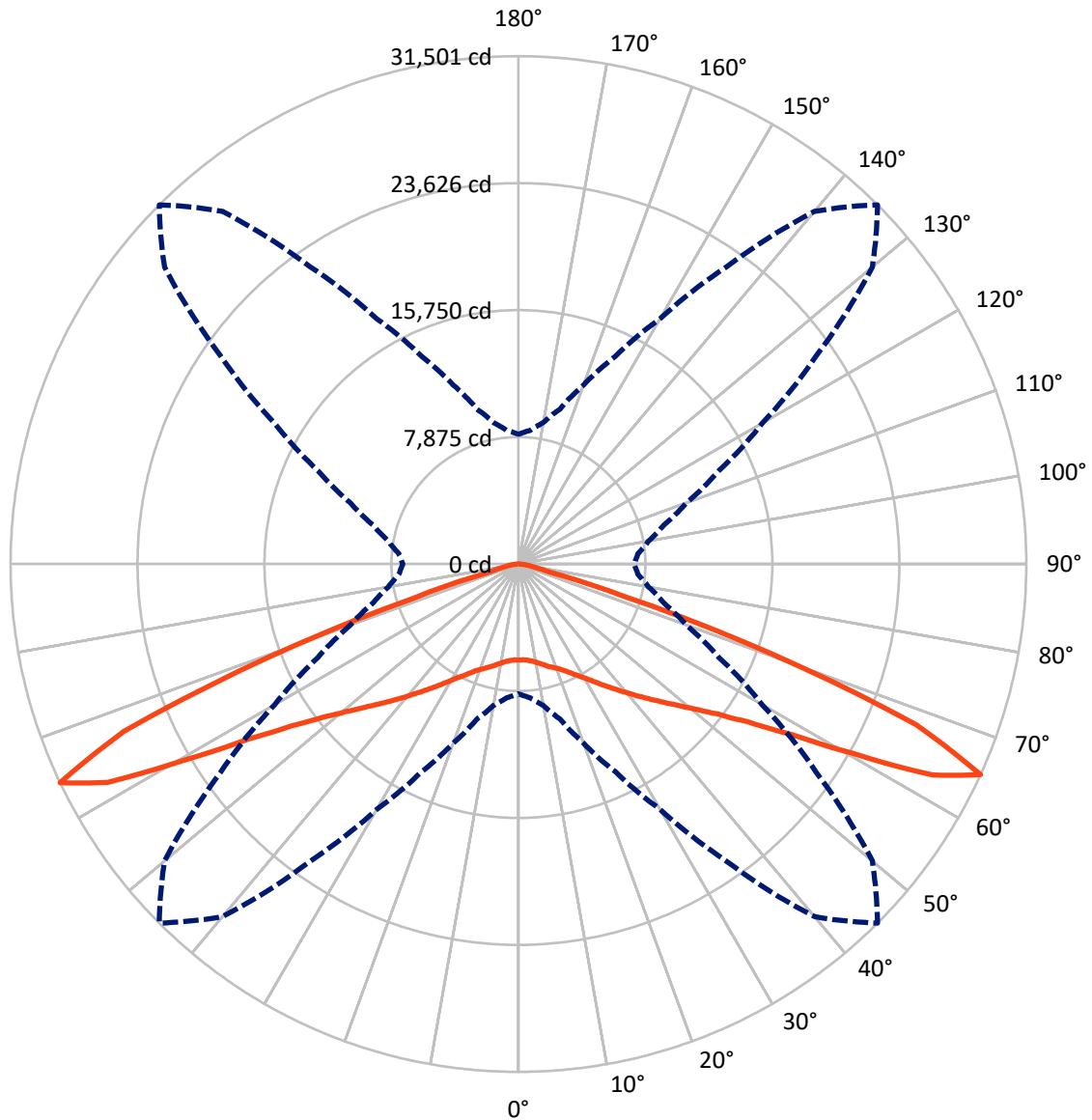
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.6 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	26310.6	0.0	26310.6
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	26310.6	0.0	26310.6
	% Fixture	50.0	0.0	50.0
Total	Lumens	52621.3	0.0	52621.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	580.3	1.1
10°-20°	1861.2	3.5
20°-30°	3480.2	6.6
30°-40°	5885.9	11.2
40°-50°	9624.1	18.3
50°-60°	15303.9	29.1
60°-70°	13833.7	26.3
70°-80°	1750.7	3.3
80°-90°	301.2	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°	52621.3	100.0
0°-180°	52621.3	100.0



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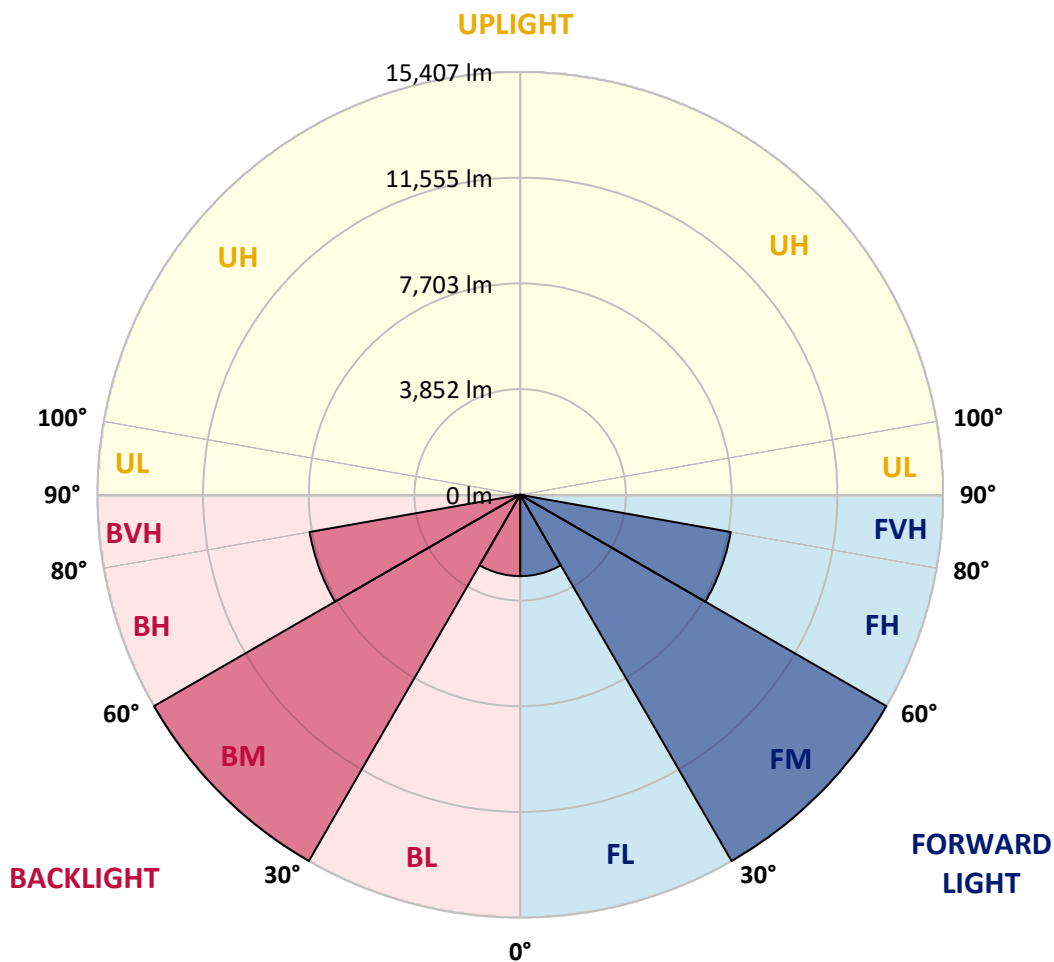
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2960.9	5.6			
FM	(30°-60°)	15407.0	29.3			
FH	(60°-80°)	7792.2	14.8			G4/12000
FVH	(80°-90°)	150.6	0.3			G2/225
BL	(0°-30°)	2960.9	5.6	B4/5000		
BM	(30°-60°)	15407.0	29.3	B5		
BH	(60°-80°)	7792.2	14.8	B5		G4/12000
BVH	(80°-90°)	150.6	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°	5954.1	5954.1	5954.1	5954.1	5954.1	5954.1	5954.1	5954.1	5954.1	5954.1	5954.1
2.5°	5959.1	5964.0	5968.9	5964.0	5968.9	5961.5	5956.6	5964.0	5956.6	5949.2	5954.1
5°	6010.8	6013.3	6013.3	6005.9	6013.3	6008.3	6000.9	6010.8	6003.4	5996.0	6000.9
7.5°	6097.1	6106.9	6099.5	6092.1	6097.1	6092.1	6087.2	6089.7	6087.2	6079.8	6082.3
10°	6212.9	6220.3	6215.4	6212.9	6217.8	6215.4	6210.4	6208.0	6210.4	6203.0	6203.0
12.5°	6353.4	6350.9	6348.4	6350.9	6358.3	6358.3	6355.8	6358.3	6363.2	6365.7	6360.8
15°	6491.4	6496.3	6496.3	6496.3	6511.1	6523.4	6530.8	6535.7	6545.6	6548.1	6538.2
17.5°	6663.9	6663.9	6661.4	6663.9	6678.7	6698.4	6705.8	6715.6	6725.5	6732.9	6720.6
20°	6856.1	6861.0	6861.0	6866.0	6885.7	6907.9	6907.9	6912.8	6907.9	6912.8	6905.4
22.5°	7090.2	7105.0	7105.0	7107.5	7127.2	7154.3	7146.9	7154.3	7142.0	7151.8	7142.0
25°	7395.8	7418.0	7413.1	7413.1	7427.9	7445.1	7447.6	7462.4	7459.9	7472.2	7464.8
27.5°	7740.9	7775.4	7785.2	7782.7	7792.6	7809.9	7814.8	7832.0	7822.2	7832.0	7827.1
30°	8154.9	8169.7	8189.4	8196.8	8209.1	8226.4	8226.4	8228.8	8216.5	8231.3	8238.7
32.5°	8583.7	8610.8	8630.5	8674.9	8697.1	8709.4	8706.9	8711.8	8699.5	8719.2	8734.0
35°	9150.5	9170.2	9202.3	9236.8	9266.4	9263.9	9256.5	9259.0	9259.0	9276.2	9291.0
37.5°	9833.2	9838.1	9880.0	9929.3	9944.1	9929.3	9884.9	9875.1	9852.9	9875.1	9899.7
40°	10555.3	10572.5	10656.3	10688.3	10695.7	10668.6	10604.6	10567.6	10518.3	10545.4	10579.9
42.5°	11311.8	11346.4	11422.7	11479.4	11504.1	11486.8	11398.1	11341.4	11277.3	11292.1	11326.6
45°	12149.8	12191.7	12300.1	12354.3	12401.1	12374.0	12287.8	12201.5	12100.5	12107.9	12162.1
47.5°	13086.3	13128.2	13268.6	13359.8	13384.5	13379.5	13283.4	13165.1	13027.1	13022.2	13069.0
50°	14136.1	14178.0	14353.0	14493.5	14564.9	14557.5	14444.2	14276.6	14109.0	14111.5	14170.6
52.5°	15161.3	15213.1	15395.5	15637.0	15777.4	15878.5	15809.5	15651.8	15447.2	15452.1	15506.4
55°	16122.5	16208.7	16418.2	16746.0	17007.2	17290.6	17371.9	17367.0	17243.8	17278.3	17332.5
57.5°	16588.2	16716.4	17039.2	17556.8	18089.1	18665.8	19153.7	19518.5	19673.7	19907.9	19853.6
60°	15706.0	15910.5	16386.2	17147.7	18200.0	19402.7	20691.6	21950.9	23025.4	23836.2	23370.4
62.5°	12859.5	13125.7	13702.4	14678.3	16270.3	18195.1	20662.0	23639.1	26882.3	28839.1	27441.7
65°	8046.4	8322.5	8909.0	9953.9	11817.1	14210.0	17556.8	22490.6	28550.7	31500.7	28656.7
67.5°	3137.3	3287.6	3605.5	4273.4	5673.2	7802.5	11161.5	16760.8	24008.7	26593.9	23562.7
70°	1572.3	1587.1	1646.3	1769.5	2070.1	2688.7	4091.0	7770.4	13768.9	16630.1	13273.6
72.5°	1136.1	1138.6	1168.2	1222.4	1318.5	1456.5	1722.7	2378.2	4477.9	6843.8	4197.0
75°	870.0	879.8	897.1	926.6	978.4	1047.4	1143.5	1370.2	1698.0	1969.1	1656.1
77.5°	670.3	690.0	702.4	729.5	761.5	808.3	835.5	921.7	1072.0	1128.7	1111.5
80°	510.1	527.4	554.5	576.7	598.9	621.0	611.2	650.6	729.5	776.3	751.7
82.5°	325.3	345.0	423.9	443.6	453.5	468.2	451.0	453.5	488.0	517.5	488.0
85°	209.5	221.8	268.6	293.3	295.7	305.6	298.2	280.9	280.9	256.3	288.3
87.5°	96.1	98.6	120.8	142.9	147.9	133.1	130.6	125.7	101.0	96.1	103.5
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°	5954.1	5954.1	5954.1	5954.1	5954.1	5954.1	5954.1	5954.1
2.5°	5951.7	5956.6	5959.1	5966.4	5968.9	5968.9	5971.4	5976.3
5°	5998.5	6005.9	6008.3	6018.2	6020.7	6018.2	6023.1	6025.6
7.5°	6082.3	6094.6	6099.5	6109.4	6102.0	6111.8	6114.3	6114.3
10°	6205.5	6217.8	6220.3	6230.1	6225.2	6230.1	6230.1	6225.2
12.5°	6368.2	6370.6	6363.2	6370.6	6360.8	6365.7	6358.3	6353.4
15°	6548.1	6540.7	6523.4	6523.4	6508.6	6511.1	6508.6	6506.2
17.5°	6723.0	6708.2	6695.9	6691.0	6678.7	6676.2	6668.8	6668.8
20°	6915.3	6907.9	6900.5	6890.6	6878.3	6866.0	6863.5	6868.4
22.5°	7146.9	7144.5	7144.5	7139.5	7122.3	7110.0	7102.6	7102.6
25°	7457.4	7435.3	7435.3	7432.8	7425.4	7418.0	7403.2	7410.6
27.5°	7807.4	7795.1	7804.9	7802.5	7795.1	7795.1	7785.2	7785.2
30°	8238.7	8233.7	8248.5	8236.2	8211.6	8209.1	8199.2	8186.9
32.5°	8736.5	8731.6	8753.7	8739.0	8699.5	8677.3	8657.6	8647.8
35°	9291.0	9293.5	9320.6	9310.7	9266.4	9251.6	9217.1	9212.1
37.5°	9897.3	9936.7	9983.5	9993.4	9956.4	9946.5	9909.6	9889.9
40°	10609.5	10661.2	10732.7	10750.0	10710.5	10703.1	10651.4	10624.3
42.5°	11368.5	11457.3	11546.0	11560.8	11521.3	11481.9	11432.6	11412.9
45°	12216.3	12322.3	12438.1	12467.7	12408.5	12361.7	12297.6	12297.6
47.5°	13167.6	13300.7	13431.3	13512.6	13458.4	13409.1	13332.7	13283.4
50°	14291.4	14473.7	14643.8	14727.6	14641.3	14547.7	14414.6	14370.2
52.5°	15701.0	15898.2	16046.1	16001.7	15868.6	15738.0	15592.6	15533.5
55°	17500.1	17566.6	17566.6	17399.1	17132.9	16913.6	16684.4	16608.0
57.5°	19750.1	19493.8	19099.5	18599.2	17970.8	17423.7	17054.0	16879.1
60°	22394.5	21162.3	19769.9	18402.1	17278.3	16351.7	15802.1	15550.7
62.5°	24156.6	20933.1	18143.3	15947.5	14330.8	13214.4	12455.4	12159.6
65°	22576.9	17458.2	13722.1	11095.0	9332.9	8196.8	7445.1	7169.1
67.5°	16536.5	10939.7	7307.1	5237.0	3837.2	3060.9	2752.8	2624.6
70°	7422.9	3851.9	2360.9	1843.4	1589.6	1459.0	1402.3	1382.6
72.5°	2237.7	1619.1	1365.3	1232.2	1131.2	1067.1	1020.3	1015.4
75°	1350.5	1123.8	998.1	919.2	855.2	803.4	778.8	771.4
77.5°	943.9	825.6	766.4	709.8	660.5	621.0	598.9	581.6
80°	662.9	606.3	579.1	547.1	515.1	478.1	446.1	431.3
82.5°	443.6	431.3	431.3	411.6	384.5	350.0	285.9	271.1
85°	285.9	283.4	288.3	280.9	261.2	224.3	184.8	175.0
87.5°	133.1	135.5	150.3	147.9	142.9	118.3	93.6	88.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)