

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: P299390

Luminaire Tested: **GLNA-AF-10-LED-E1-5NQ-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299390
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-7030
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(10) 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: 58583.3 lumens
Efficiency: N/A
Efficacy: 105.0 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

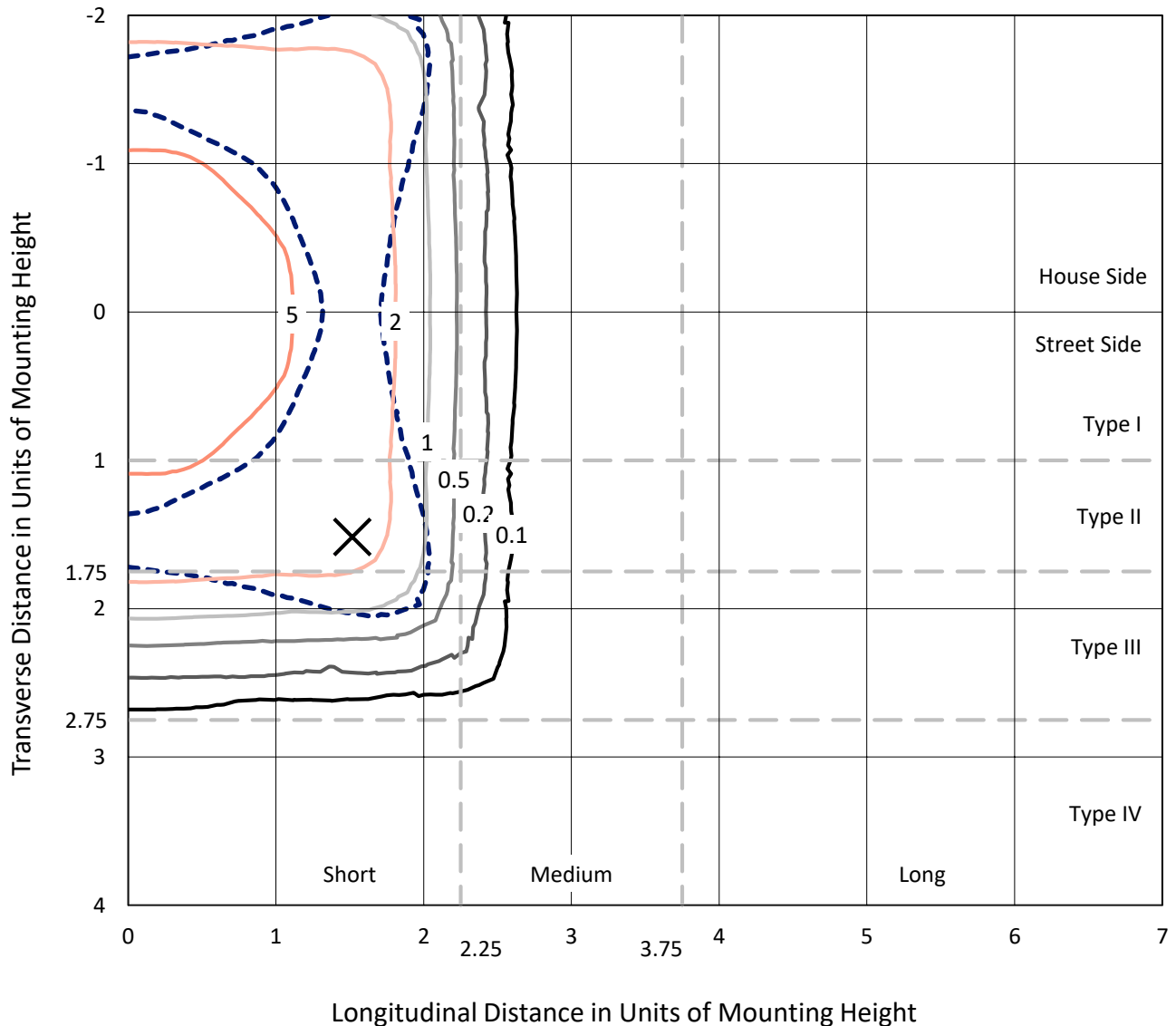
Input Watts (W): 558
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

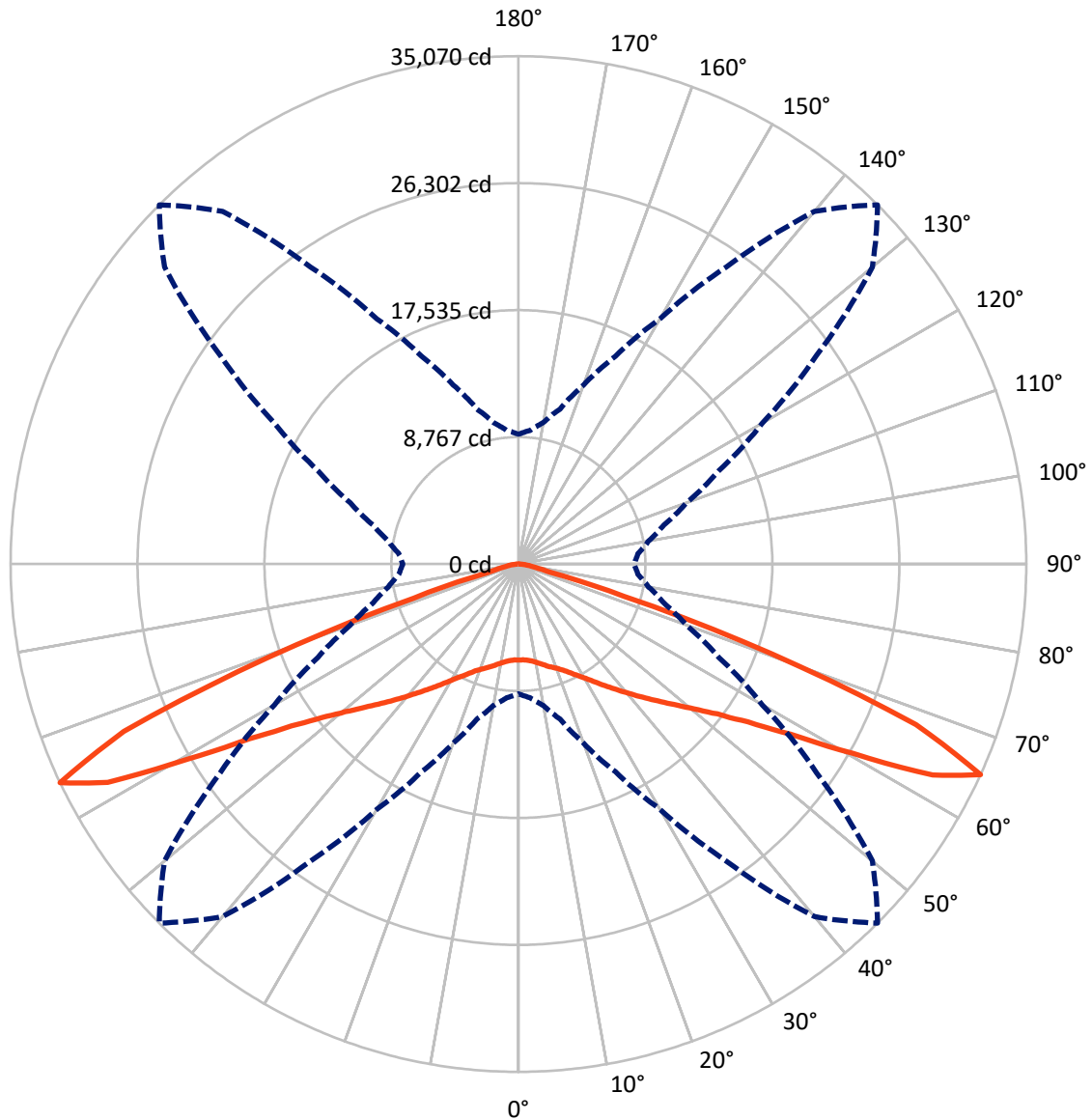
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 7.4 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	29291.7	0.0	29291.7
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	29291.7	0.0	29291.7
	% Fixture	50.0	0.0	50.0
Total	Lumens	58583.3	0.0	58583.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	646.1	1.1
10°-20°	2072.1	3.5
20°-30°	3874.5	6.6
30°-40°	6552.8	11.2
40°-50°	10714.6	18.3
50°-60°	17037.8	29.1
60°-70°	15401.1	26.3
70°-80°	1949.1	3.3
80°-90°	335.3	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°	58583.3	100.0
0°-180°	58583.3	100.0



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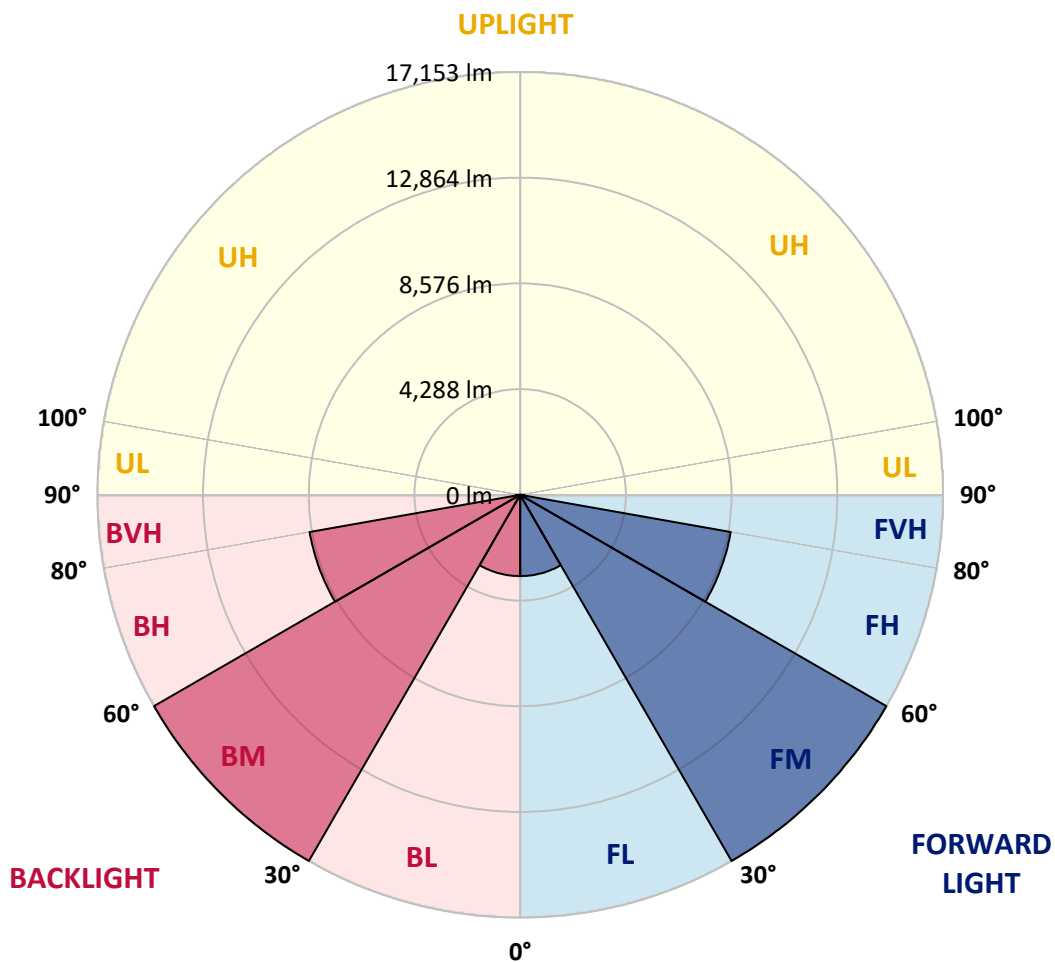
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3296.3	5.6			
FM	(30°-60°)	17152.6	29.3			
FH	(60°-80°)	8675.1	14.8			G4/12000
FVH	(80°-90°)	167.6	0.3			G2/225
BL	(0°-30°)	3296.3	5.6	B4/5000		
BM	(30°-60°)	17152.6	29.3	B5		
BH	(60°-80°)	8675.1	14.8	B5		G4/12000
BVH	(80°-90°)	167.6	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°	6628.7	6628.7	6628.7	6628.7	6628.7	6628.7	6628.7	6628.7	6628.7	6628.7	6628.7
2.5°	6634.2	6639.7	6645.2	6639.7	6645.2	6637.0	6631.5	6639.7	6631.5	6623.2	6628.7
5°	6691.8	6694.6	6694.6	6686.4	6694.6	6689.1	6680.9	6691.8	6683.6	6675.4	6680.9
7.5°	6787.9	6798.8	6790.6	6782.4	6787.9	6782.4	6776.9	6779.6	6776.9	6768.7	6771.4
10°	6916.8	6925.1	6919.6	6916.8	6922.3	6919.6	6914.1	6911.3	6914.1	6905.8	6905.8
12.5°	7073.2	7070.5	7067.7	7070.5	7078.7	7078.7	7076.0	7078.7	7084.2	7086.9	7081.4
15°	7226.9	7232.3	7232.3	7232.3	7248.8	7262.5	7270.8	7276.2	7287.2	7290.0	7279.0
17.5°	7418.9	7418.9	7416.2	7418.9	7435.4	7457.3	7465.6	7476.5	7487.5	7495.7	7482.0
20°	7632.9	7638.4	7638.4	7643.9	7665.8	7690.5	7690.5	7696.0	7690.5	7696.0	7687.8
22.5°	7893.6	7910.0	7910.0	7912.8	7934.7	7964.9	7956.7	7964.9	7951.2	7962.2	7951.2
25°	8233.8	8258.5	8253.0	8253.0	8269.5	8288.7	8291.4	8307.9	8305.1	8318.8	8310.6
27.5°	8617.9	8656.3	8667.3	8664.5	8675.5	8694.7	8700.2	8719.4	8708.4	8719.4	8713.9
30°	9078.8	9095.3	9117.3	9125.5	9139.2	9158.4	9158.4	9161.2	9147.4	9163.9	9172.1
32.5°	9556.2	9586.4	9608.4	9657.8	9682.5	9696.2	9693.4	9698.9	9685.2	9707.1	9723.6
35°	10187.3	10209.2	10244.9	10283.3	10316.2	10313.5	10305.3	10308.0	10308.0	10327.2	10343.7
37.5°	10947.3	10952.8	10999.4	11054.3	11070.8	11054.3	11004.9	10993.9	10969.2	10993.9	11021.4
40°	11751.2	11770.4	11863.7	11899.3	11907.6	11877.4	11806.1	11764.9	11710.0	11740.2	11778.6
42.5°	12593.5	12631.9	12717.0	12780.1	12807.5	12788.3	12689.5	12626.4	12555.1	12571.5	12610.0
45°	13526.3	13573.0	13693.7	13754.1	13806.2	13776.0	13680.0	13584.0	13471.5	13479.7	13540.1
47.5°	14568.9	14615.6	14772.0	14873.5	14900.9	14895.4	14788.4	14656.7	14503.1	14497.6	14549.7
50°	15737.8	15784.4	15979.2	16135.6	16215.2	16206.9	16080.7	15894.1	15707.6	15710.3	15776.2
52.5°	16879.1	16936.7	17139.8	17408.7	17565.0	17677.5	17600.7	17425.1	17197.4	17202.9	17263.2
55°	17949.2	18045.2	18278.4	18643.3	18934.1	19249.7	19340.2	19334.7	19197.5	19235.9	19296.3
57.5°	18467.7	18610.4	18969.8	19546.0	20138.6	20780.6	21323.9	21730.0	21902.8	22163.5	22103.1
60°	17485.5	17713.2	18242.7	19090.5	20262.1	21601.0	23035.9	24438.0	25634.2	26536.9	26018.3
62.5°	14316.5	14612.8	15254.9	16341.4	18113.8	20256.6	23003.0	26317.4	29928.1	32106.6	30550.9
65°	8958.1	9265.4	9918.4	11081.7	13156.0	15820.1	19546.0	25038.8	31785.5	35069.7	31903.5
67.5°	3492.7	3660.1	4014.0	4757.5	6316.0	8686.5	12426.1	18659.8	26728.9	29607.1	26232.3
70°	1750.5	1766.9	1832.8	1970.0	2304.7	2993.4	4554.5	8650.8	15328.9	18514.4	14777.5
72.5°	1264.8	1267.6	1300.5	1360.9	1467.9	1621.5	1917.8	2647.7	4985.3	7619.2	4672.5
75°	968.5	979.5	998.7	1031.6	1089.2	1166.1	1273.1	1525.5	1890.4	2192.2	1843.8
77.5°	746.3	768.2	781.9	812.1	847.8	899.9	930.1	1026.1	1193.5	1256.6	1237.4
80°	567.9	587.1	617.3	642.0	666.7	691.4	680.4	724.3	812.1	864.3	836.8
82.5°	362.2	384.1	471.9	493.9	504.8	521.3	502.1	504.8	543.2	576.2	543.2
85°	233.2	246.9	299.1	326.5	329.2	340.2	332.0	312.8	312.8	285.3	321.0
87.5°	107.0	109.7	134.4	159.1	164.6	148.2	145.4	139.9	112.5	107.0	115.2
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°	6628.7	6628.7	6628.7	6628.7	6628.7	6628.7	6628.7	6628.7
2.5°	6626.0	6631.5	6634.2	6642.5	6645.2	6645.2	6647.9	6653.4
5°	6678.1	6686.4	6689.1	6700.1	6702.8	6700.1	6705.6	6708.3
7.5°	6771.4	6785.1	6790.6	6801.6	6793.4	6804.3	6807.1	6807.1
10°	6908.6	6922.3	6925.1	6936.0	6930.5	6936.0	6936.0	6930.5
12.5°	7089.7	7092.4	7084.2	7092.4	7081.4	7086.9	7078.7	7073.2
15°	7290.0	7281.7	7262.5	7262.5	7246.1	7248.8	7246.1	7243.3
17.5°	7484.8	7468.3	7454.6	7449.1	7435.4	7432.6	7424.4	7424.4
20°	7698.8	7690.5	7682.3	7671.3	7657.6	7643.9	7641.2	7646.6
22.5°	7956.7	7953.9	7953.9	7948.4	7929.2	7915.5	7907.3	7907.3
25°	8302.4	8277.7	8277.7	8274.9	8266.7	8258.5	8242.0	8250.2
27.5°	8692.0	8678.3	8689.2	8686.5	8678.3	8678.3	8667.3	8667.3
30°	9172.1	9166.6	9183.1	9169.4	9141.9	9139.2	9128.2	9114.5
32.5°	9726.3	9720.9	9745.6	9729.1	9685.2	9660.5	9638.6	9627.6
35°	10343.7	10346.4	10376.6	10365.6	10316.2	10299.8	10261.4	10255.9
37.5°	11018.6	11062.5	11114.7	11125.6	11084.5	11073.5	11032.3	11010.4
40°	11811.5	11869.2	11948.7	11967.9	11924.0	11915.8	11858.2	11828.0
42.5°	12656.6	12755.4	12854.1	12870.6	12826.7	12782.8	12727.9	12706.0
45°	13600.4	13718.4	13847.4	13880.3	13814.4	13762.3	13691.0	13691.0
47.5°	14659.5	14807.6	14953.1	15043.6	14983.2	14928.4	14843.3	14788.4
50°	15910.6	16113.6	16303.0	16396.2	16300.2	16195.9	16047.8	15998.4
52.5°	17480.0	17699.5	17864.1	17814.7	17666.6	17521.1	17359.3	17293.4
55°	19482.9	19557.0	19557.0	19370.4	19074.1	18829.9	18574.7	18489.7
57.5°	21987.9	21702.5	21263.5	20706.6	20006.9	19397.8	18986.3	18791.5
60°	24931.8	23560.0	22009.8	20487.1	19235.9	18204.3	17592.5	17312.6
62.5°	26893.6	23304.8	20199.0	17754.4	15954.5	14711.6	13866.6	13537.3
65°	25134.9	19436.2	15276.8	12352.1	10390.3	9125.5	8288.7	7981.4
67.5°	18410.1	12179.2	8135.0	5830.3	4271.9	3407.7	3064.7	2922.0
70°	8264.0	4288.4	2628.4	2052.3	1769.7	1624.3	1561.2	1539.2
72.5°	2491.3	1802.6	1520.0	1371.8	1259.3	1188.0	1135.9	1130.4
75°	1503.5	1251.1	1111.2	1023.4	952.1	894.4	867.0	858.8
77.5°	1050.8	919.1	853.3	790.2	735.3	691.4	666.7	647.5
80°	738.1	674.9	644.8	609.1	573.4	532.3	496.6	480.1
82.5°	493.9	480.1	480.1	458.2	428.0	389.6	318.3	301.8
85°	318.3	315.5	321.0	312.8	290.8	249.7	205.8	194.8
87.5°	148.2	150.9	167.4	164.6	159.1	131.7	104.3	98.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)