

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: P299453

Luminaire Tested: **GLNA-AF-10-LED-E1-5NQ-7050-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299453
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-7050-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 5000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 48929.3 lumens
Efficiency: N/A
Efficacy: 116.8 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 - G3

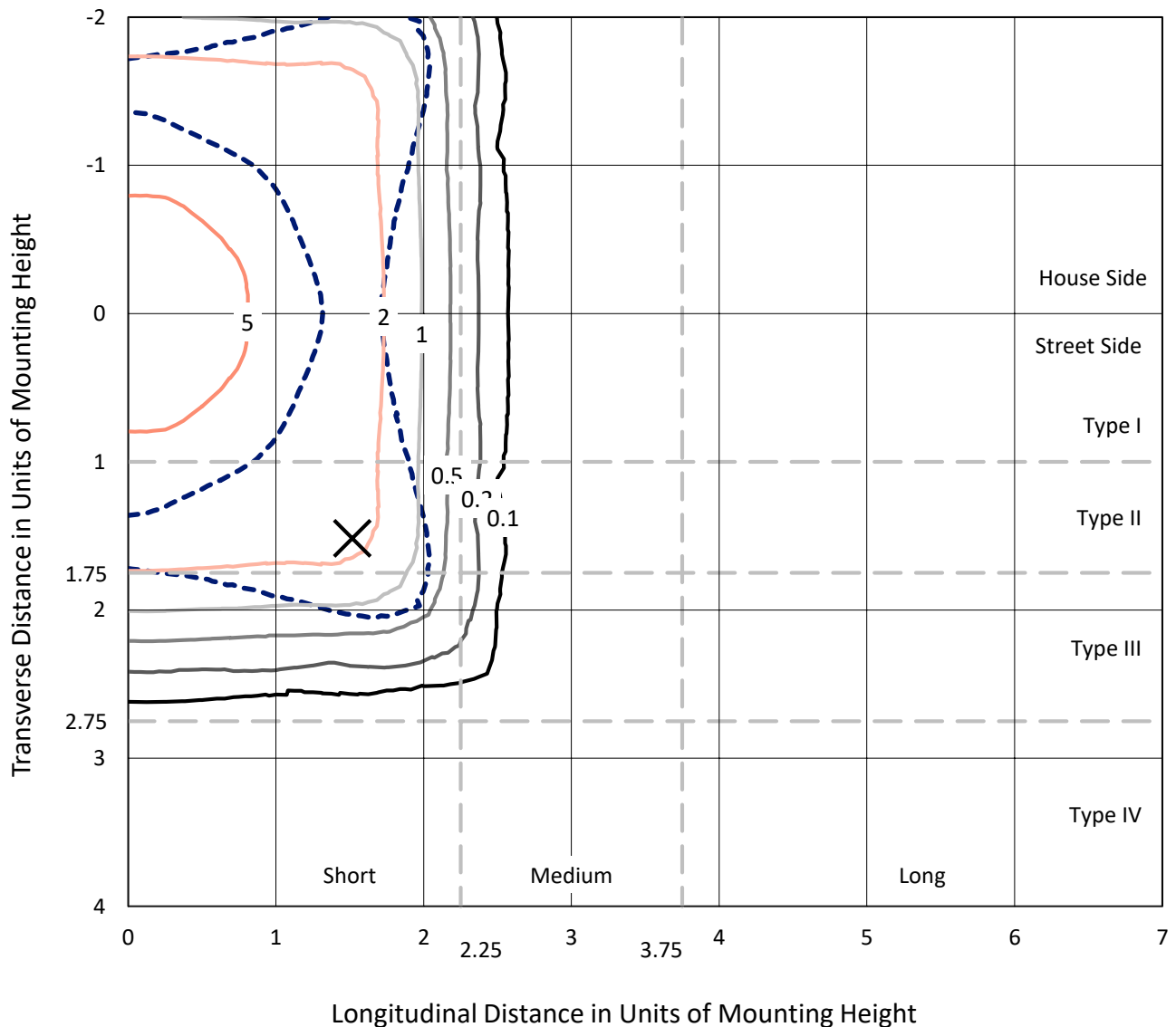
Input Watts (W): 419
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

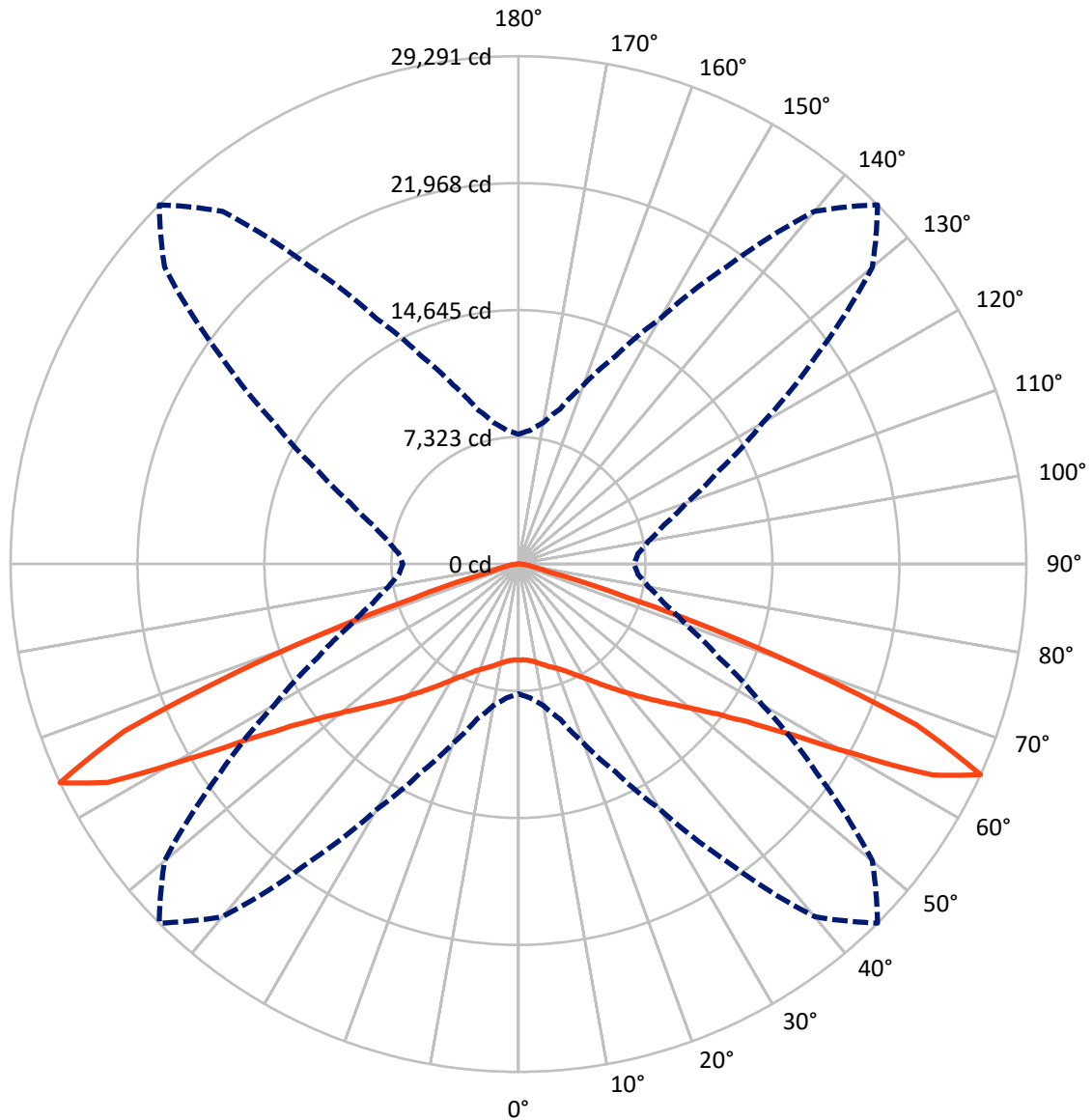
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.2 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	24464.7	0.0	24464.7
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	24464.7	0.0	24464.7
	% Fixture	50.0	0.0	50.0
Total	Lumens	48929.3	0.0	48929.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	539.6	1.1
10°-20°	1730.7	3.5
20°-30°	3236.0	6.6
30°-40°	5473.0	11.2
40°-50°	8948.9	18.3
50°-60°	14230.1	29.1
60°-70°	12863.1	26.3
70°-80°	1627.9	3.3
80°-90°	280.0	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°	48929.3	100.0
0°-180°	48929.3	100.0



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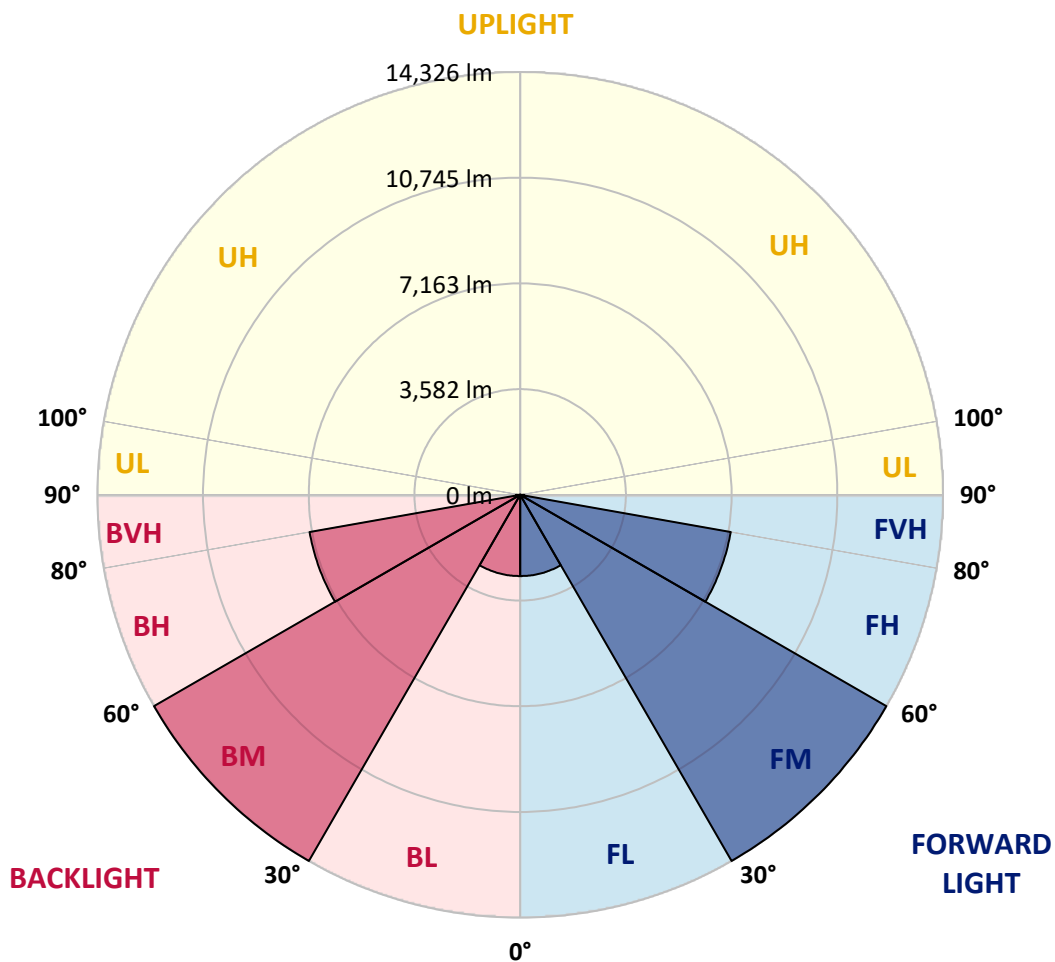
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2753.1	5.6			
FM	(30°-60°)	14326.0	29.3			
FH	(60°-80°)	7245.5	14.8			G3/7500
FVH	(80°-90°)	140.0	0.3			G2/225
BL	(0°-30°)	2753.1	5.6	B4/5000		
BM	(30°-60°)	14326.0	29.3	B5		
BH	(60°-80°)	7245.5	14.8	B5		G3/7500
BVH	(80°-90°)	140.0	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-G3

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	5536.4	5536.4	5536.4	5536.4	5536.4	5536.4	5536.4	5536.4	5536.4	5536.4	5536.4
2.5°	5541.0	5545.5	5550.1	5545.5	5550.1	5543.3	5538.7	5545.5	5538.7	5531.8	5536.4
5°	5589.1	5591.4	5591.4	5584.5	5591.4	5586.8	5579.9	5589.1	5582.2	5575.3	5579.9
7.5°	5669.3	5678.5	5671.6	5664.7	5669.3	5664.7	5660.1	5662.4	5660.1	5653.3	5655.5
10°	5777.0	5783.9	5779.3	5777.0	5781.6	5779.3	5774.7	5772.4	5774.7	5767.8	5767.8
12.5°	5907.6	5905.3	5903.0	5905.3	5912.2	5912.2	5909.9	5912.2	5916.8	5919.1	5914.5
15°	6035.9	6040.5	6040.5	6040.5	6054.3	6065.7	6072.6	6077.2	6086.4	6088.6	6079.5
17.5°	6196.3	6196.3	6194.1	6196.3	6210.1	6228.4	6235.3	6244.5	6253.6	6260.5	6249.1
20°	6375.1	6379.7	6379.7	6384.3	6402.6	6423.2	6423.2	6427.8	6423.2	6427.8	6420.9
22.5°	6592.8	6606.5	6606.5	6608.8	6627.2	6652.4	6645.5	6652.4	6640.9	6650.1	6640.9
25°	6876.9	6897.6	6893.0	6893.0	6906.7	6922.8	6925.1	6938.8	6936.5	6948.0	6941.1
27.5°	7197.8	7229.8	7239.0	7236.7	7245.9	7261.9	7266.5	7282.5	7273.4	7282.5	7278.0
30°	7582.7	7596.5	7614.8	7621.7	7633.1	7649.2	7649.2	7651.5	7640.0	7653.8	7660.6
32.5°	7981.5	8006.7	8025.0	8066.3	8086.9	8098.3	8096.0	8100.6	8089.2	8107.5	8121.2
35°	8508.5	8526.9	8556.6	8588.7	8616.2	8613.9	8607.1	8609.3	8609.3	8625.4	8639.1
37.5°	9143.3	9147.9	9186.8	9232.6	9246.4	9232.6	9191.4	9182.2	9161.6	9182.2	9205.2
40°	9814.7	9830.7	9908.7	9938.4	9945.3	9920.1	9860.5	9826.2	9780.3	9805.5	9837.6
42.5°	10518.2	10550.3	10621.3	10674.0	10696.9	10680.9	10598.4	10545.7	10486.1	10499.9	10532.0
45°	11297.3	11336.3	11437.1	11487.5	11531.1	11505.9	11425.7	11345.5	11251.5	11258.4	11308.8
47.5°	12168.1	12207.1	12337.7	12422.5	12445.4	12440.8	12351.4	12241.5	12113.1	12108.5	12152.1
50°	13144.3	13183.3	13346.0	13476.6	13543.1	13536.2	13430.8	13274.9	13119.1	13121.4	13176.4
52.5°	14097.6	14145.7	14315.3	14539.9	14670.5	14764.4	14700.3	14553.6	14363.4	14368.0	14418.4
55°	14991.3	15071.5	15266.3	15571.1	15814.0	16077.5	16153.1	16148.5	16034.0	16066.0	16116.5
57.5°	15424.4	15543.6	15843.8	16325.0	16820.0	17356.2	17809.9	18149.1	18293.4	18511.1	18460.7
60°	14604.0	14794.2	15236.5	15944.6	16923.1	18041.4	19239.8	20410.8	21409.9	22163.9	21730.8
62.5°	11957.3	12204.8	12741.0	13648.5	15128.8	16918.5	19212.3	21980.5	24996.2	26815.7	25516.4
65°	7481.9	7738.6	8283.9	9255.6	10988.0	13213.1	16325.0	20912.7	26547.6	29290.6	26646.1
67.5°	2917.1	3056.9	3352.5	3973.5	5275.1	7255.0	10378.4	15584.8	22324.3	24728.1	21909.5
70°	1462.0	1475.8	1530.8	1645.3	1924.9	2500.1	3804.0	7225.3	12802.9	15463.4	12342.3
72.5°	1056.4	1058.7	1086.2	1136.6	1226.0	1354.3	1601.8	2211.3	4163.7	6363.6	3902.5
75°	808.9	818.1	834.1	861.6	909.7	973.9	1063.3	1274.1	1578.9	1830.9	1539.9
77.5°	623.3	641.6	653.1	678.3	708.1	751.6	776.8	857.0	996.8	1049.5	1033.5
80°	474.4	490.4	515.6	536.2	556.8	577.5	568.3	605.0	678.3	721.8	698.9
82.5°	302.5	320.8	394.1	412.5	421.6	435.4	419.4	421.6	453.7	481.2	453.7
85°	194.8	206.2	249.8	272.7	275.0	284.2	277.3	261.2	261.2	238.3	268.1
87.5°	89.4	91.7	112.3	132.9	137.5	123.7	121.5	116.9	94.0	89.4	96.2
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°	5536.4	5536.4	5536.4	5536.4	5536.4	5536.4	5536.4	5536.4
2.5°	5534.1	5538.7	5541.0	5547.8	5550.1	5550.1	5552.4	5557.0
5°	5577.6	5584.5	5586.8	5596.0	5598.3	5596.0	5600.5	5602.8
7.5°	5655.5	5667.0	5671.6	5680.7	5673.9	5683.0	5685.3	5685.3
10°	5770.1	5781.6	5783.9	5793.0	5788.5	5793.0	5793.0	5788.5
12.5°	5921.4	5923.7	5916.8	5923.7	5914.5	5919.1	5912.2	5907.6
15°	6088.6	6081.8	6065.7	6065.7	6052.0	6054.3	6052.0	6049.7
17.5°	6251.3	6237.6	6226.1	6221.6	6210.1	6207.8	6200.9	6200.9
20°	6430.1	6423.2	6416.3	6407.2	6395.7	6384.3	6382.0	6386.5
22.5°	6645.5	6643.2	6643.2	6638.6	6622.6	6611.1	6604.2	6604.2
25°	6934.2	6913.6	6913.6	6911.3	6904.4	6897.6	6883.8	6890.7
27.5°	7259.6	7248.2	7257.3	7255.0	7248.2	7248.2	7239.0	7239.0
30°	7660.6	7656.1	7669.8	7658.4	7635.4	7633.1	7624.0	7612.5
32.5°	8123.5	8119.0	8139.6	8125.8	8089.2	8068.5	8050.2	8041.0
35°	8639.1	8641.4	8666.6	8657.5	8616.2	8602.5	8570.4	8565.8
37.5°	9202.9	9239.5	9283.1	9292.2	9257.9	9248.7	9214.3	9196.0
40°	9865.1	9913.2	9979.7	9995.7	9959.1	9952.2	9904.1	9878.9
42.5°	10570.9	10653.4	10735.9	10749.7	10713.0	10676.3	10630.5	10612.2
45°	11359.2	11457.7	11565.4	11592.9	11537.9	11494.4	11434.8	11434.8
47.5°	12243.7	12367.5	12488.9	12564.6	12514.1	12468.3	12397.3	12351.4
50°	13288.7	13458.3	13616.4	13694.3	13614.1	13527.0	13403.3	13362.0
52.5°	14599.5	14782.8	14920.3	14879.0	14755.3	14633.8	14498.6	14443.6
55°	16272.3	16334.2	16334.2	16178.3	15930.8	15726.9	15513.8	15442.7
57.5°	18364.5	18126.2	17759.5	17294.3	16710.0	16201.2	15857.5	15694.8
60°	20823.3	19677.5	18382.8	17111.0	16066.0	15204.4	14693.4	14459.7
62.5°	22461.8	19464.4	16870.4	14828.6	13325.4	12287.3	11581.5	11306.5
65°	20992.9	16233.3	12759.3	10316.6	8678.1	7621.7	6922.8	6666.1
67.5°	15376.3	10172.2	6794.4	4869.5	3567.9	2846.1	2559.7	2440.5
70°	6902.1	3581.7	2195.3	1714.1	1478.0	1356.6	1303.9	1285.6
72.5°	2080.7	1505.5	1269.5	1145.8	1051.8	992.2	948.7	944.1
75°	1255.8	1044.9	928.1	854.7	795.2	747.0	724.1	717.3
77.5°	877.7	767.7	712.7	660.0	614.1	577.5	556.8	540.8
80°	616.4	563.7	538.5	508.7	478.9	444.6	414.8	401.0
82.5°	412.5	401.0	401.0	382.7	357.5	325.4	265.8	252.1
85°	265.8	263.5	268.1	261.2	242.9	208.5	171.9	162.7
87.5°	123.7	126.0	139.8	137.5	132.9	110.0	87.1	82.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)