

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: P299992

Luminaire Tested: **GLNA-AF-10-LED-E1-SL3-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299992
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24288)
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-SL3-600
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Square Medium OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 38681.3 lumens
Efficiency: N/A
Efficacy: 119.8 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B3 - U0 - G5

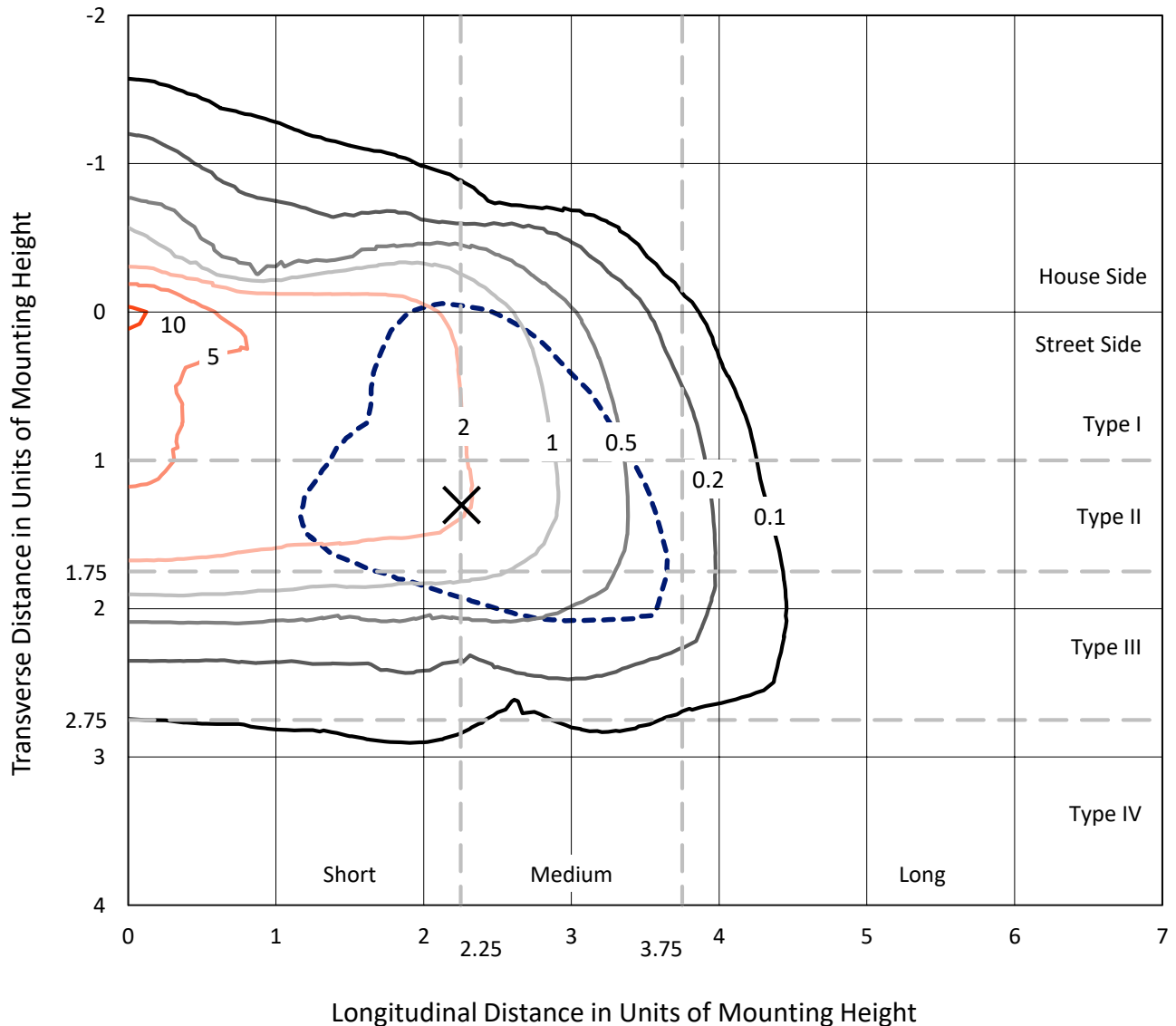
Input Watts (W): 323
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

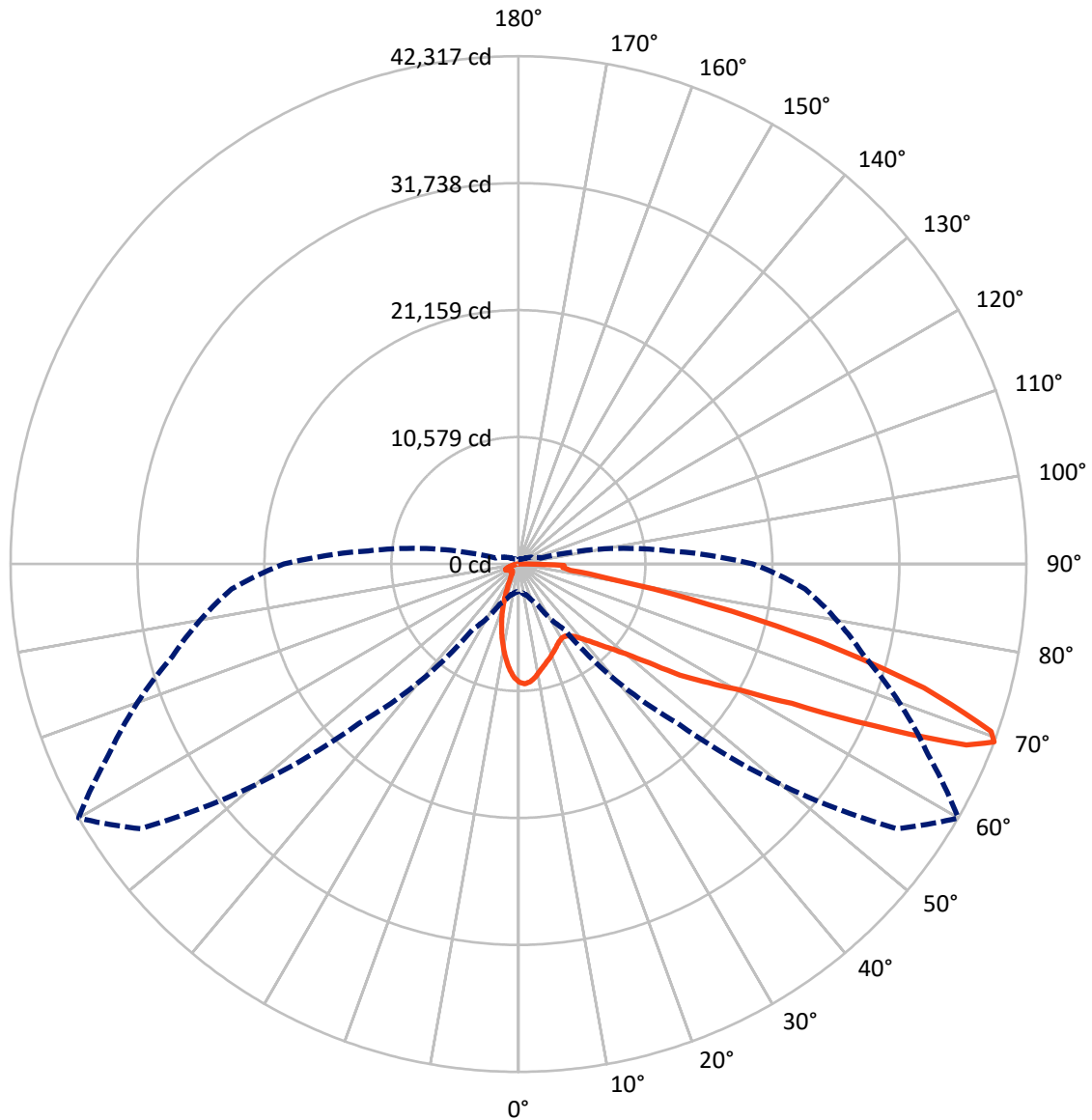
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 11 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5503.1	0.0	5503.1
	% Fixture	14.2	0.0	14.2
Street Side	Lumens	33178.2	0.0	33178.2
	% Fixture	85.8	0.0	85.8
Total	Lumens	38681.3	0.0	38681.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	833.4	2.2
10°-20°	1775.6	4.6
20°-30°	2262.5	5.8
30°-40°	3110.3	8.0
40°-50°	5046.8	13.0
50°-60°	8093.8	20.9
60°-70°	10772.2	27.8
70°-80°	5816.2	15.0
80°-90°	970.5	2.5
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°	38681.3	100.0
0°-180°	38681.3	100.0



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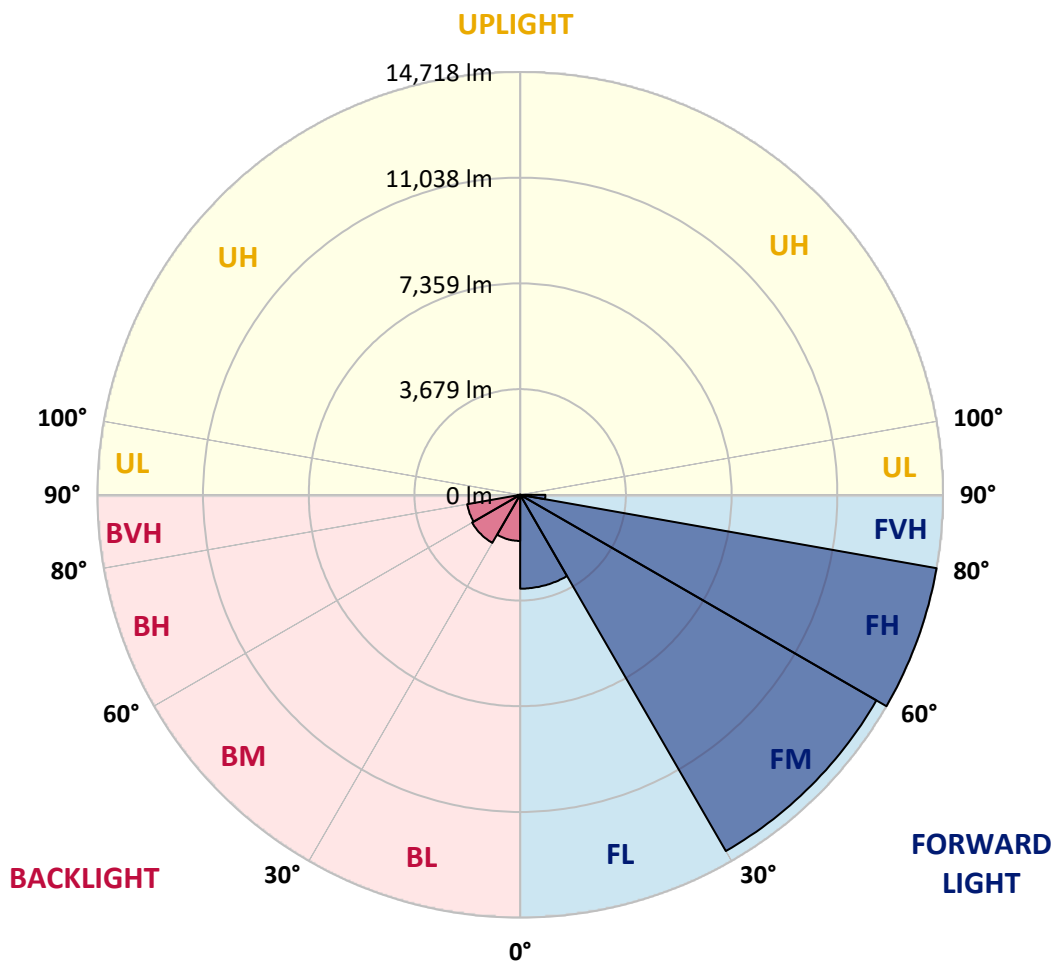
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3266.1	8.4			
FM	(30°-60°)	14317.6	37.0			
FH	(60°-80°)	14717.5	38.0			G5
FVH	(80°-90°)	877.0	2.3			G5
BL	(0°-30°)	1605.4	4.2	B3/2500		
BM	(30°-60°)	1933.4	5.0	B2/2500		
BH	(60°-80°)	1870.9	4.8	B3/2500		G3/2500
BVH	(80°-90°)	93.5	0.2			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	60°	65°	75°	85°
0°	9856.6	9856.6	9856.6	9856.6	9856.6	9856.6	9856.6	9856.6	9856.6	9856.6	9856.6
2.5°	10058.4	10080.8	10071.5	10065.9	10082.7	10056.5	10002.3	9985.5	9959.4	9897.7	9793.1
5°	9680.9	9748.2	9744.5	9794.9	9879.0	9901.4	9877.1	9880.9	9832.3	9755.7	9581.9
7.5°	9028.8	9056.8	9071.8	9182.0	9335.3	9458.6	9563.2	9596.9	9574.4	9509.0	9284.8
10°	8356.1	8378.6	8414.1	8543.0	8737.3	8907.4	9105.4	9219.4	9268.0	9256.8	9006.4
12.5°	7778.8	7801.2	7847.9	7993.6	8225.3	8434.6	8722.4	8864.4	8980.2	9049.4	8780.3
15°	7261.2	7309.8	7354.6	7522.8	7782.5	8057.2	8382.3	8561.7	8741.1	8896.2	8580.4
17.5°	6857.6	6906.2	6932.3	7085.5	7362.1	7698.4	8079.6	8290.7	8515.0	8769.1	8382.3
20°	6624.0	6646.4	6635.2	6721.2	6969.7	7326.6	7778.8	8023.5	8294.5	8649.5	8184.2
22.5°	6558.6	6560.5	6519.4	6510.0	6670.7	6971.6	7457.4	7754.5	8087.1	8571.0	8014.2
25°	6717.4	6711.8	6599.7	6508.2	6525.0	6700.6	7147.2	7492.9	7913.3	8554.2	7883.4
27.5°	7070.6	7087.4	6921.1	6749.2	6579.2	6573.6	6911.8	7276.1	7771.3	8630.8	7827.3
30°	7565.7	7593.8	7416.3	7197.6	6878.1	6614.7	6820.2	7147.2	7683.5	8789.6	7818.0
32.5°	8107.6	8137.5	8003.0	7773.2	7354.6	6868.8	6883.7	7158.4	7679.7	9012.0	7881.5
35°	8685.0	8718.6	8649.5	8455.2	7989.9	7337.8	7126.6	7339.7	7801.2	9352.1	8051.6
37.5°	9329.7	9382.0	9400.7	9215.7	8718.6	7956.3	7524.6	7683.5	8075.9	9824.8	8363.6
40°	10258.3	10331.2	10325.6	10060.3	9553.9	8791.5	8139.4	8180.5	8503.8	10456.4	8862.5
42.5°	12037.2	12052.1	11586.9	11009.5	10473.2	9669.7	8864.4	8830.8	9094.2	11256.1	9596.9
45°	14300.0	14238.3	13203.2	12087.6	11433.6	10678.7	9808.0	9643.6	9843.5	12231.5	10516.2
47.5°	16177.9	16035.9	14727.9	13188.2	12450.1	11775.6	10916.1	10628.3	10738.5	13337.7	11704.6
50°	16830.0	16723.5	15639.7	14103.8	13412.4	13113.5	12280.1	11872.8	11902.6	14656.9	13096.6
52.5°	16689.9	16674.9	15951.8	14707.3	14313.1	14518.6	14212.2	13661.0	13369.5	16121.8	14599.0
55°	16359.1	16390.9	16129.3	15409.9	15342.6	15875.2	16736.6	16329.2	15423.0	17599.8	16151.7
57.5°	15210.0	15292.2	15867.7	16293.7	17000.0	17792.3	18769.6	18653.7	17633.5	19197.5	17997.8
60°	12253.9	12444.5	13987.9	16121.8	18706.0	21183.7	21621.0	21351.9	19913.1	21180.0	20436.3
62.5°	8586.0	8784.0	10619.0	13958.0	18425.7	25014.2	26718.4	25558.0	23186.8	24100.5	23592.3
65°	4596.6	4691.9	6093.3	9684.7	15555.7	25804.6	34168.3	32402.5	28370.2	27701.2	26292.3
67.5°	2535.6	2587.9	3124.2	4890.0	9963.1	22723.4	38914.4	40248.5	34848.4	30098.6	25800.9
69°	2292.7	2341.3	2692.6	3703.5	6667.0	18788.2	38451.0	42317.0	37688.6	29861.3	23984.7
70°	2242.3	2287.1	2602.9	3413.8	5396.4	15486.5	36898.2	41788.2	38365.0	29011.1	22400.1
72.5°	2018.0	2066.6	2373.1	3066.3	4611.6	7720.8	29227.8	35332.4	34831.6	25154.4	16990.7
75°	1881.6	1926.5	2445.9	3002.8	4415.4	4886.3	19268.5	26040.1	25604.7	17596.1	9161.5
77.5°	805.3	801.6	1134.2	2541.2	4480.8	4731.2	10353.6	16267.6	14841.9	7520.9	2630.9
80°	538.1	528.8	538.1	747.4	4108.9	4757.3	5424.4	8257.1	6237.2	1917.1	1296.8
82.5°	463.4	455.9	472.7	455.9	1444.4	5430.0	4611.6	4391.1	2965.4	1089.4	642.8
85°	312.0	299.0	407.3	409.2	682.0	4824.6	5194.6	3709.1	2399.2	646.5	317.7
87.5°	149.5	145.7	237.3	289.6	399.9	1960.1	5828.0	3800.6	2419.8	330.7	151.4
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	9856.6	9856.6	9856.6	9856.6	9856.6	9856.6	9856.6	9856.6	9856.6	9856.6	9856.6
2.5°	9761.3	9684.7	9609.9	9520.2	9426.8	9322.2	9269.9	9217.5	9204.5	9189.5	9137.2
5°	9492.2	9383.8	9197.0	8991.5	8774.7	8563.6	8402.9	8302.0	8225.3	8186.1	8117.0
7.5°	9144.7	8985.8	8658.8	8303.8	7939.5	7606.9	7319.1	7137.9	6965.9	6885.6	6794.0
10°	8813.9	8576.6	8068.4	7545.2	7022.0	6519.4	6046.6	5712.1	5415.1	5248.7	5131.0
12.5°	8529.9	8204.8	7500.3	6792.2	6074.6	5359.0	4650.8	4094.0	3628.7	3383.9	3258.7
15°	8253.4	7861.0	6960.3	6061.6	5140.4	4166.9	3236.3	2604.8	2219.8	2066.6	2014.3
17.5°	8003.0	7500.3	6418.5	5325.4	4176.2	2999.0	2175.0	1827.4	1679.8	1629.4	1612.6
20°	7732.0	7136.0	5856.0	4555.5	3170.9	2096.5	1698.5	1545.3	1485.5	1470.5	1463.1
22.5°	7470.5	6777.2	5317.9	3731.5	2277.8	1618.2	1459.3	1395.8	1386.5	1399.5	1399.5
25°	7248.1	6455.8	4736.8	2870.1	1672.4	1362.2	1306.1	1291.2	1326.7	1375.3	1384.6
27.5°	7081.8	6192.4	4118.3	2118.9	1332.3	1184.7	1182.8	1207.1	1294.9	1388.3	1407.0
30°	6967.8	5942.0	3456.8	1528.5	1117.4	1042.6	1072.5	1124.9	1253.8	1386.5	1422.0
32.5°	6909.9	5757.0	2767.3	1182.8	956.7	915.6	966.0	1029.6	1156.6	1280.0	1326.7
35°	6954.7	5620.6	2117.1	986.6	844.6	812.8	865.1	926.8	1001.5	1053.9	1089.4
37.5°	7122.9	5566.4	1597.6	883.8	768.0	738.1	779.2	814.7	844.6	859.5	876.3
40°	7485.4	5624.3	1280.0	831.5	725.0	687.6	704.4	717.5	736.2	751.2	758.6
42.5°	8019.8	5798.1	1147.3	810.9	702.6	648.4	644.6	650.3	674.5	702.6	708.2
45°	8767.2	6104.5	1137.9	824.0	691.4	616.6	599.8	607.3	644.6	687.6	695.1
47.5°	9722.1	6571.7	1212.7	863.3	700.7	599.8	571.8	581.1	627.8	685.8	695.1
50°	10878.7	7223.8	1337.9	921.2	741.8	603.5	562.4	568.0	616.6	680.2	689.5
52.5°	12244.6	8148.7	1474.3	977.3	784.8	627.8	569.9	556.8	601.7	657.7	668.9
55°	13763.7	9335.3	1614.4	1027.7	807.2	657.7	584.9	541.9	573.6	620.4	629.7
57.5°	15628.5	10994.5	1857.3	1076.3	822.2	678.3	599.8	526.9	538.1	571.8	579.2
60°	18152.9	13341.4	2285.2	1156.6	855.8	685.8	597.9	513.9	502.6	521.3	525.1
62.5°	21178.1	15890.1	2642.1	1257.5	911.9	691.4	586.7	504.5	472.7	472.7	476.5
65°	22973.8	16572.1	2444.1	1341.6	958.6	685.8	573.6	495.2	450.3	429.8	431.6
67.5°	21450.9	14574.7	2094.6	1358.4	956.7	659.6	553.1	478.3	427.9	396.1	394.3
69°	19543.1	12575.3	1937.7	1313.6	911.9	626.0	526.9	459.7	411.1	377.4	375.6
70°	18005.3	11355.2	1834.9	1265.0	863.3	601.7	506.4	442.8	398.0	366.2	362.5
72.5°	13091.0	7440.6	1567.7	1087.5	711.9	504.5	437.2	388.7	355.0	336.3	332.6
75°	6541.8	3548.4	1272.5	882.0	545.6	403.6	358.8	325.1	308.3	304.6	302.7
77.5°	2148.8	1625.6	910.0	657.7	405.5	315.8	289.6	265.3	261.6	272.8	269.1
80°	1180.9	945.5	577.4	435.4	276.5	231.7	228.0	214.9	220.5	239.2	235.4
82.5°	601.7	491.4	356.9	261.6	186.9	166.3	181.2	173.8	181.2	198.1	196.2
85°	297.1	269.1	226.1	158.8	123.3	106.5	128.9	134.5	138.3	151.4	151.4
87.5°	171.9	158.8	119.6	74.7	61.7	56.1	74.7	72.9	86.0	93.4	91.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)