

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: P299851

Luminaire Tested: **GLNA-AF-07-LED-E1-SL3-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299851
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-07-LED-E1-SL3-7027
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(7) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Square Medium OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 36457.3 lumens
Efficiency: N/A
Efficacy: 93.2 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B3 - U0 - G5

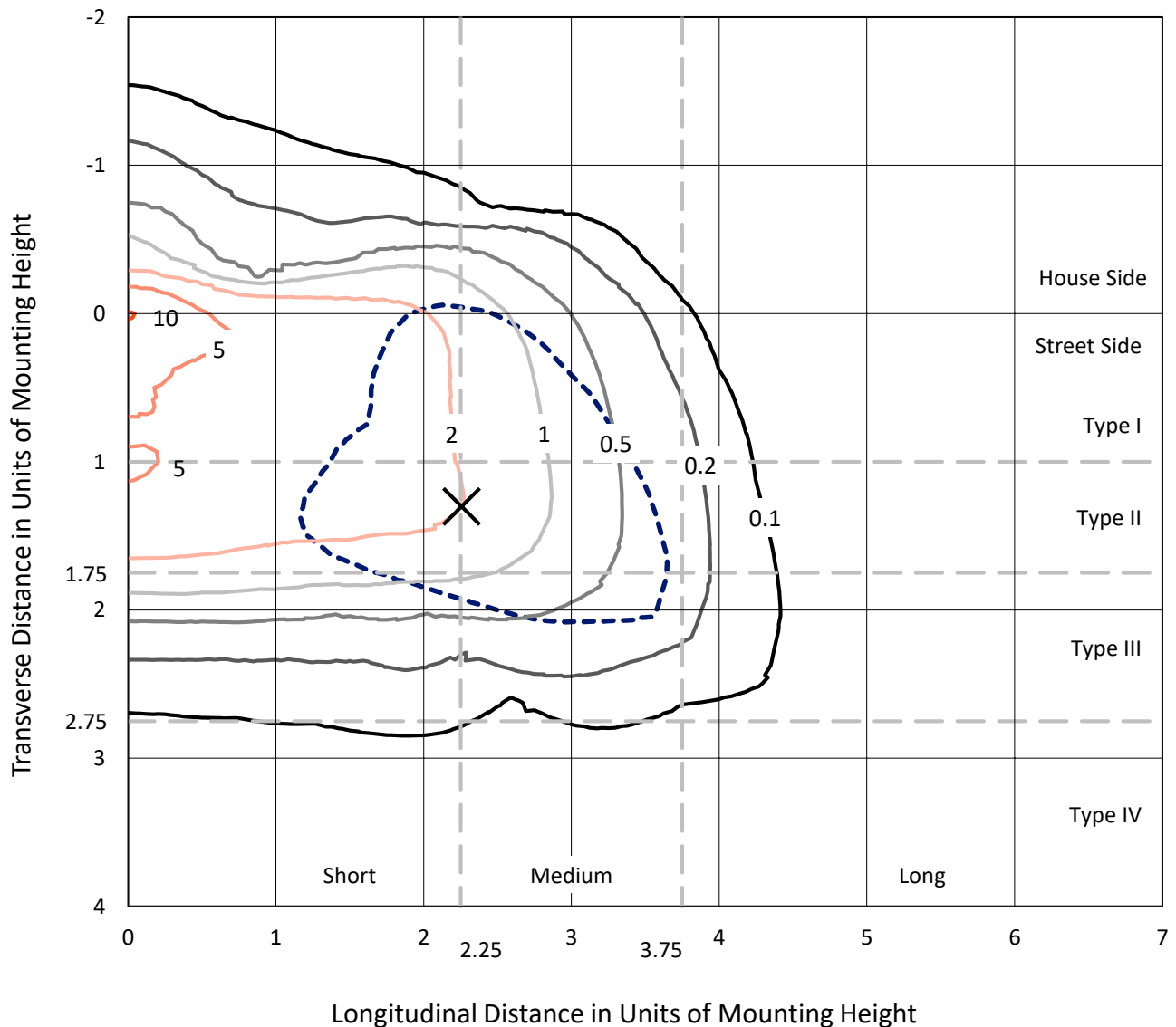
Input Watts (W): 391
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

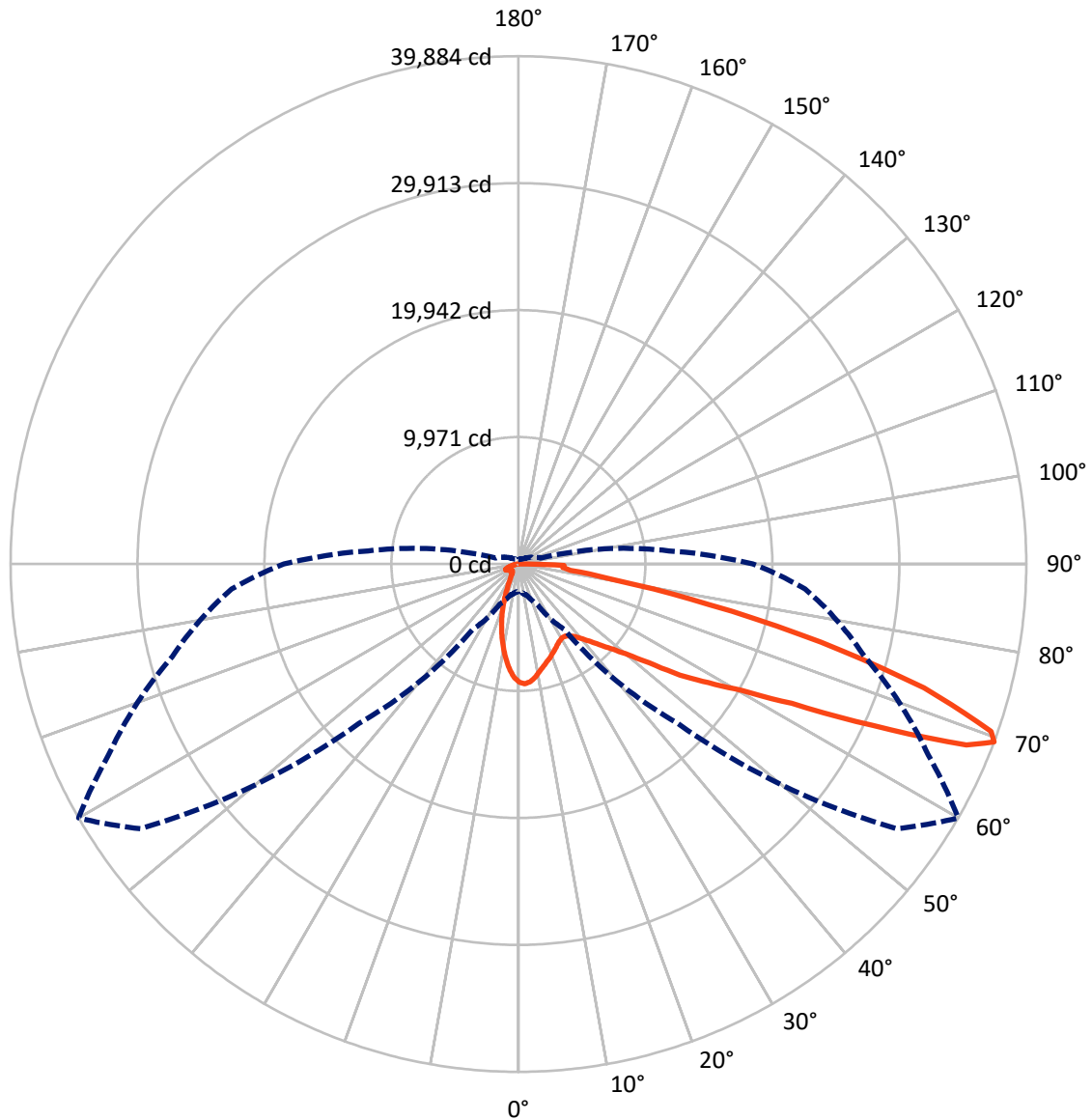
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 10.3 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	5186.7	0.0	5186.7
	% Fixture	14.2	0.0	14.2
Street Side	Lumens	31270.5	0.0	31270.5
	% Fixture	85.8	0.0	85.8
Total	Lumens	36457.3	0.0	36457.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	785.5	2.2
10°-20°	1673.5	4.6
20°-30°	2132.4	5.8
30°-40°	2931.5	8.0
40°-50°	4756.6	13.0
50°-60°	7628.4	20.9
60°-70°	10152.9	27.8
70°-80°	5481.8	15.0
80°-90°	914.7	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°	36457.3	100.0
0°-180°	36457.3	100.0



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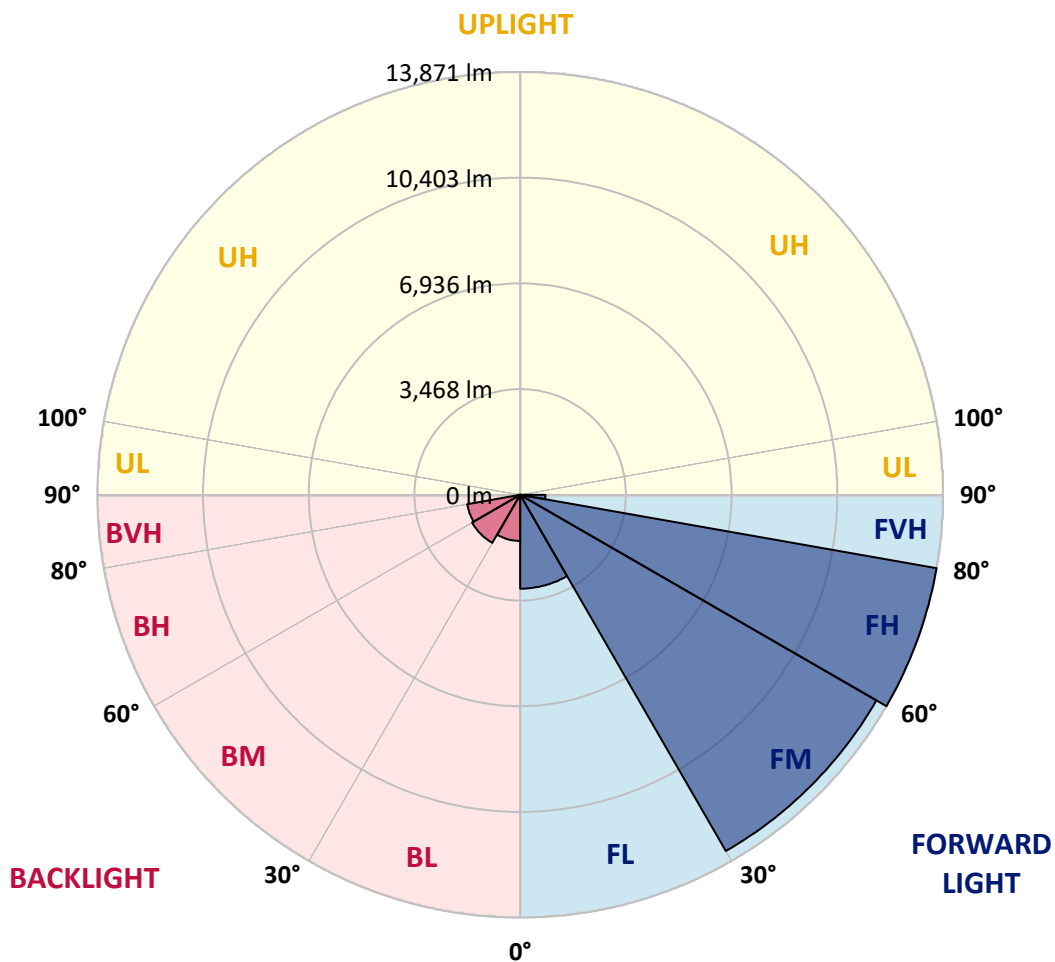
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3078.3	8.4			
FM	(30°-60°)	13494.4	37.0			
FH	(60°-80°)	13871.3	38.0			G5
FVH	(80°-90°)	826.6	2.3			G5
BL	(0°-30°)	1513.1	4.2	B3/2500		
BM	(30°-60°)	1822.2	5.0	B2/2500		
BH	(60°-80°)	1763.3	4.8	B3/2500		G3/2500
BVH	(80°-90°)	88.1	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°	9289.9	9289.9	9289.9	9289.9	9289.9	9289.9	9289.9	9289.9	9289.9	9289.9	9289.9
2.5°	9480.1	9501.2	9492.4	9487.1	9503.0	9478.3	9427.2	9411.4	9386.7	9328.6	9230.0
5°	9124.3	9187.7	9184.2	9231.7	9311.0	9332.1	9309.2	9312.8	9267.0	9194.8	9031.0
7.5°	8509.7	8536.1	8550.2	8654.1	8798.5	8914.7	9013.4	9045.1	9023.9	8962.3	8751.0
10°	7875.7	7896.8	7930.3	8051.8	8235.0	8395.2	8581.9	8689.3	8735.1	8724.5	8488.6
12.5°	7331.5	7352.6	7396.7	7534.0	7752.4	7949.7	8220.9	8354.7	8463.9	8529.1	8275.5
15°	6843.7	6889.5	6931.7	7090.2	7335.0	7593.9	7900.3	8069.4	8238.5	8384.7	8087.0
17.5°	6463.3	6509.1	6533.7	6678.1	6938.8	7255.8	7615.0	7814.1	8025.4	8264.9	7900.3
20°	6243.1	6264.3	6253.7	6334.7	6568.9	6905.3	7331.5	7562.2	7817.6	8152.2	7713.7
22.5°	6181.5	6183.3	6144.5	6135.7	6287.2	6570.7	7028.6	7308.6	7622.1	8078.2	7553.4
25°	6331.2	6325.9	6220.2	6134.0	6149.8	6315.3	6736.3	7062.1	7458.3	8062.4	7430.1
27.5°	6664.0	6679.9	6523.2	6361.1	6200.9	6195.6	6514.4	6857.8	7324.5	8134.6	7377.3
30°	7130.7	7157.2	6989.9	6783.8	6482.7	6234.3	6428.1	6736.3	7241.7	8284.3	7368.5
32.5°	7641.5	7669.6	7542.8	7326.2	6931.7	6473.8	6487.9	6746.8	7238.2	8493.8	7428.4
35°	8185.6	8217.3	8152.2	7969.0	7530.5	6915.9	6716.9	6917.6	7352.6	8814.4	7588.6
37.5°	8793.2	8842.5	8860.2	8685.8	8217.3	7498.8	7092.0	7241.7	7611.5	9259.9	7882.7
40°	9668.5	9737.2	9731.9	9481.8	9004.6	8286.0	7671.4	7710.1	8014.8	9855.2	8353.0
42.5°	11345.1	11359.2	10920.7	10376.5	9871.0	9113.8	8354.7	8323.0	8571.3	10608.9	9045.1
45°	13477.8	13419.7	12444.0	11392.6	10776.2	10064.8	9244.1	9089.1	9277.5	11528.2	9911.5
47.5°	15247.7	15113.9	13881.1	12429.9	11734.3	11098.5	10288.4	10017.2	10121.1	12570.8	11031.6
50°	15862.3	15761.9	14740.5	13292.9	12641.3	12359.5	11574.0	11190.1	11218.3	13814.2	12343.6
52.5°	15730.2	15716.2	15034.6	13861.7	13490.1	13683.8	13395.0	12875.5	12600.8	15194.9	13759.6
55°	15418.5	15448.5	15201.9	14523.9	14460.5	14962.4	15774.3	15390.4	14536.2	16587.9	15223.0
57.5°	14335.4	14412.9	14955.4	15356.9	16022.6	16769.3	17690.4	17581.2	16619.6	18093.7	16963.0
60°	11549.4	11729.0	13183.7	15194.9	17630.5	19965.7	20377.8	20124.2	18768.2	19962.2	19261.3
62.5°	8092.3	8279.0	10008.4	13155.5	17366.3	23576.0	25182.1	24088.5	21853.6	22714.8	22235.8
65°	4332.3	4422.2	5743.0	9127.8	14661.3	24320.9	32203.7	30539.4	26739.0	26108.5	24780.6
67.5°	2389.8	2439.1	2944.6	4608.8	9390.2	21416.9	36676.9	37934.3	32844.7	28368.0	24317.4
69°	2160.9	2206.7	2537.8	3490.5	6283.6	17708.0	36240.1	39883.9	35521.6	28144.3	22605.6
70°	2113.3	2155.6	2453.2	3217.6	5086.1	14596.1	34776.7	39385.5	36159.1	27343.0	21112.2
72.5°	1902.0	1947.8	2236.6	2890.0	4346.4	7276.9	27547.3	33300.9	32828.9	23708.1	16013.8
75°	1773.4	1815.7	2305.3	2830.1	4161.5	4605.3	18160.6	24542.8	24132.5	16584.4	8634.7
77.5°	759.0	755.5	1069.0	2395.1	4223.1	4459.1	9758.3	15332.2	13988.5	7088.5	2479.6
80°	507.2	498.4	507.2	704.4	3872.7	4483.8	5112.5	7782.4	5878.6	1806.9	1222.2
82.5°	436.8	429.7	445.6	429.7	1361.3	5117.8	4346.4	4138.6	2794.9	1026.7	605.8
85°	294.1	281.8	383.9	385.7	642.8	4547.2	4895.9	3495.8	2261.3	609.3	299.4
87.5°	140.9	137.4	223.7	273.0	376.9	1847.4	5492.9	3582.1	2280.6	311.7	142.7
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°	9289.9	9289.9	9289.9	9289.9	9289.9	9289.9	9289.9	9289.9	9289.9	9289.9	9289.9
2.5°	9200.0	9127.8	9057.4	8972.9	8884.8	8786.2	8736.9	8687.6	8675.2	8661.1	8611.8
5°	8946.4	8844.3	8668.2	8474.5	8270.2	8071.2	7919.7	7824.6	7752.4	7715.4	7650.3
7.5°	8618.9	8469.2	8161.0	7826.4	7483.0	7169.5	6898.3	6727.4	6565.4	6489.7	6403.4
10°	8307.2	8083.5	7604.5	7111.4	6618.3	6144.5	5699.0	5383.7	5103.7	4947.0	4836.0
12.5°	8039.5	7733.0	7069.1	6401.6	5725.4	5050.9	4383.4	3858.6	3420.1	3189.4	3071.4
15°	7778.8	7409.0	6560.1	5713.0	4844.8	3927.3	3050.2	2455.0	2092.2	1947.8	1898.5
17.5°	7542.8	7069.1	6049.4	5019.2	3936.1	2826.6	2049.9	1722.4	1583.2	1535.7	1519.8
20°	7287.5	6725.7	5519.3	4293.6	2988.6	1976.0	1600.9	1456.4	1400.1	1386.0	1379.0
22.5°	7040.9	6387.6	5012.1	3516.9	2146.8	1525.1	1375.4	1315.6	1306.7	1319.1	1319.1
25°	6831.4	6084.6	4464.4	2705.1	1576.2	1283.9	1231.0	1216.9	1250.4	1296.2	1305.0
27.5°	6674.6	5836.3	3881.5	1997.1	1255.7	1116.5	1114.8	1137.7	1220.5	1308.5	1326.1
30°	6567.2	5600.3	3258.1	1440.6	1053.1	982.7	1010.9	1060.2	1181.7	1306.7	1340.2
32.5°	6512.6	5426.0	2608.2	1114.8	901.7	862.9	910.5	970.4	1090.1	1206.4	1250.4
35°	6554.9	5297.4	1995.3	929.9	796.0	766.1	815.4	873.5	944.0	993.3	1026.7
37.5°	6713.4	5246.4	1505.8	833.0	723.8	695.6	734.4	767.8	796.0	810.1	826.0
40°	7055.0	5300.9	1206.4	783.7	683.3	648.1	663.9	676.3	693.9	708.0	715.0
42.5°	7558.7	5464.7	1081.3	764.3	662.2	611.1	607.6	612.9	635.8	662.2	667.5
45°	8263.1	5753.6	1072.5	776.7	651.6	581.2	565.3	572.4	607.6	648.1	655.1
47.5°	9163.1	6193.8	1143.0	813.6	660.4	565.3	538.9	547.7	591.7	646.3	655.1
50°	10253.2	6808.5	1261.0	868.2	699.2	568.8	530.1	535.4	581.2	641.0	649.9
52.5°	11540.6	7680.2	1389.5	921.1	739.7	591.7	537.1	524.8	567.1	619.9	630.5
55°	12972.3	8798.5	1521.6	968.6	760.8	619.9	551.2	510.7	540.7	584.7	593.5
57.5°	14729.9	10362.4	1750.5	1014.4	774.9	639.3	565.3	496.6	507.2	538.9	545.9
60°	17109.2	12574.3	2153.8	1090.1	806.6	646.3	563.6	484.3	473.7	491.4	494.9
62.5°	19960.4	14976.5	2490.2	1185.2	859.4	651.6	553.0	475.5	445.6	445.6	449.1
65°	21652.9	15619.3	2303.5	1264.5	903.5	646.3	540.7	466.7	424.4	405.1	406.8
67.5°	20217.6	13736.7	1974.2	1280.3	901.7	621.7	521.3	450.8	403.3	373.4	371.6
69°	18419.5	11852.3	1826.3	1238.1	859.4	590.0	496.6	433.2	387.4	355.7	354.0
70°	16970.1	10702.3	1729.4	1192.3	813.6	567.1	477.3	417.4	375.1	345.2	341.7
72.5°	12338.3	7012.7	1477.6	1025.0	671.0	475.5	412.1	366.3	334.6	317.0	313.5
75°	6165.7	3344.4	1199.3	831.2	514.2	380.4	338.1	306.4	290.6	287.1	285.3
77.5°	2025.3	1532.2	857.7	619.9	382.2	297.6	273.0	250.1	246.6	257.1	253.6
80°	1113.0	891.1	544.2	410.3	260.6	218.4	214.9	202.5	207.8	225.4	221.9
82.5°	567.1	463.2	336.4	246.6	176.1	156.7	170.8	163.8	170.8	186.7	184.9
85°	280.0	253.6	213.1	149.7	116.2	100.4	121.5	126.8	130.3	142.7	142.7
87.5°	162.0	149.7	112.7	70.4	58.1	52.8	70.4	68.7	81.0	88.1	86.3
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)