

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: P299984

Luminaire Tested: **GLNA-AF-09-LED-E1-SL3-7030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299984
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-09-LED-E1-SL3-7030-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 3000K 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: 33794.2 lumens
Efficiency: N/A
Efficacy: 116.5 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): 290
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

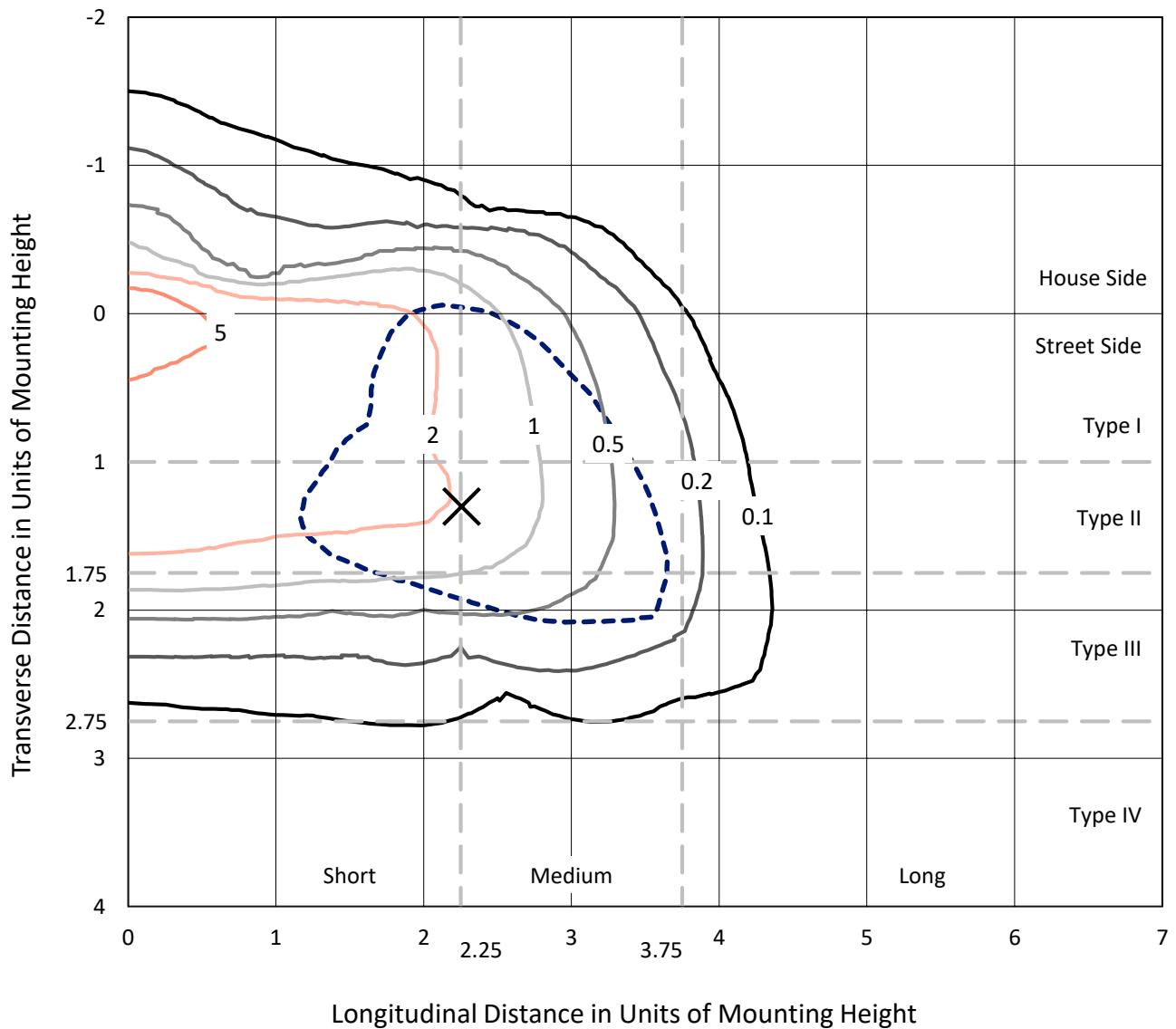


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Iso-Footcandle Lines of Horizontal Illumination

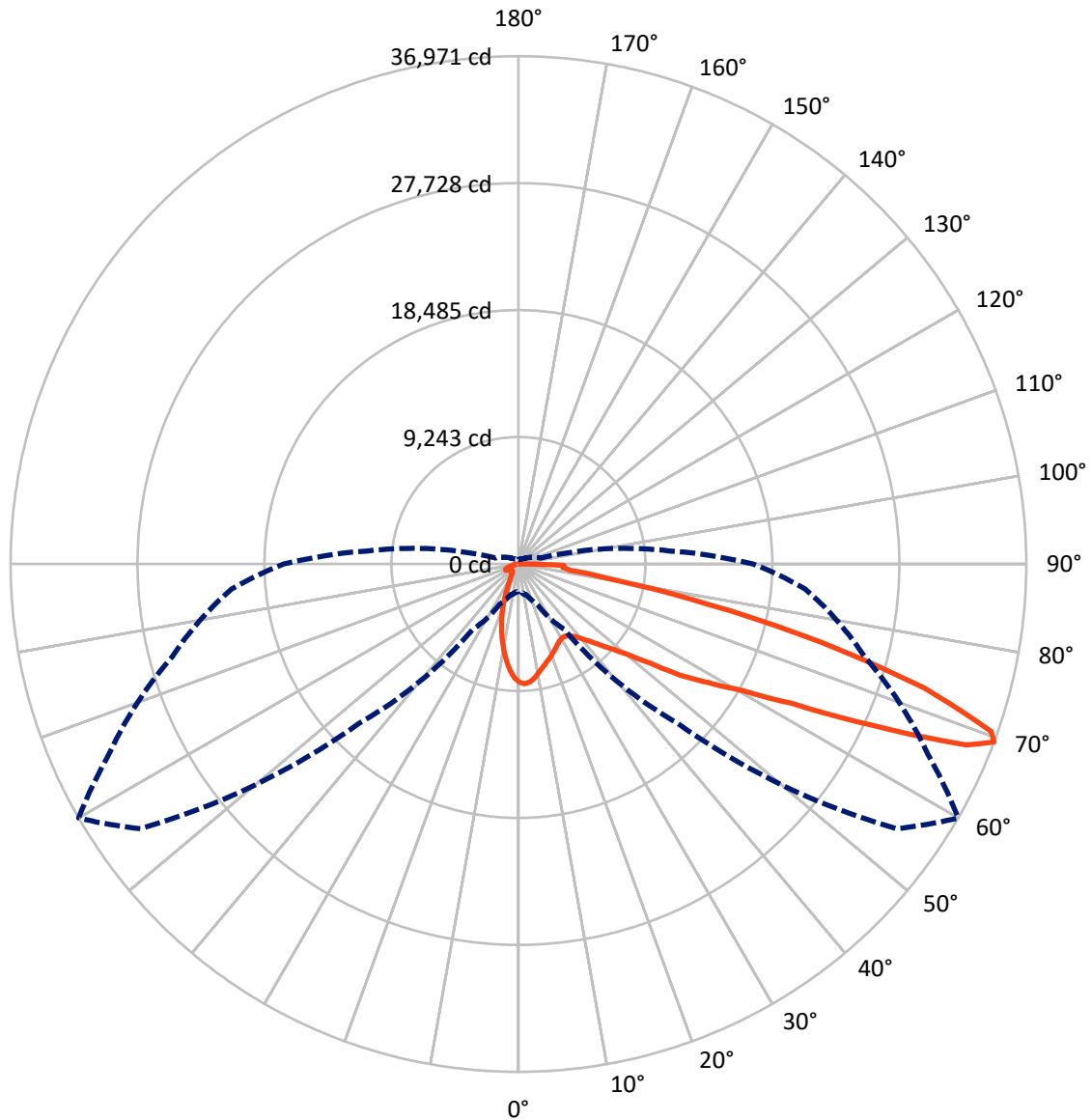
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9.6 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	4807.9	0.0	4807.9
	% Fixture	14.2	0.0	14.2
Street Side	Lumens	28986.4	0.0	28986.4
	% Fixture	85.8	0.0	85.8
Total	Lumens	33794.2	0.0	33794.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	728.1	2.2
10°-20°	1551.3	4.6
20°-30°	1976.6	5.8
30°-40°	2717.4	8.0
40°-50°	4409.2	13.0
50°-60°	7071.2	20.9
60°-70°	9411.2	27.8
70°-80°	5081.3	15.0
80°-90°	847.9	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°	33794.2	100.0
0°-180°	33794.2	100.0

Coefficient of Utilization



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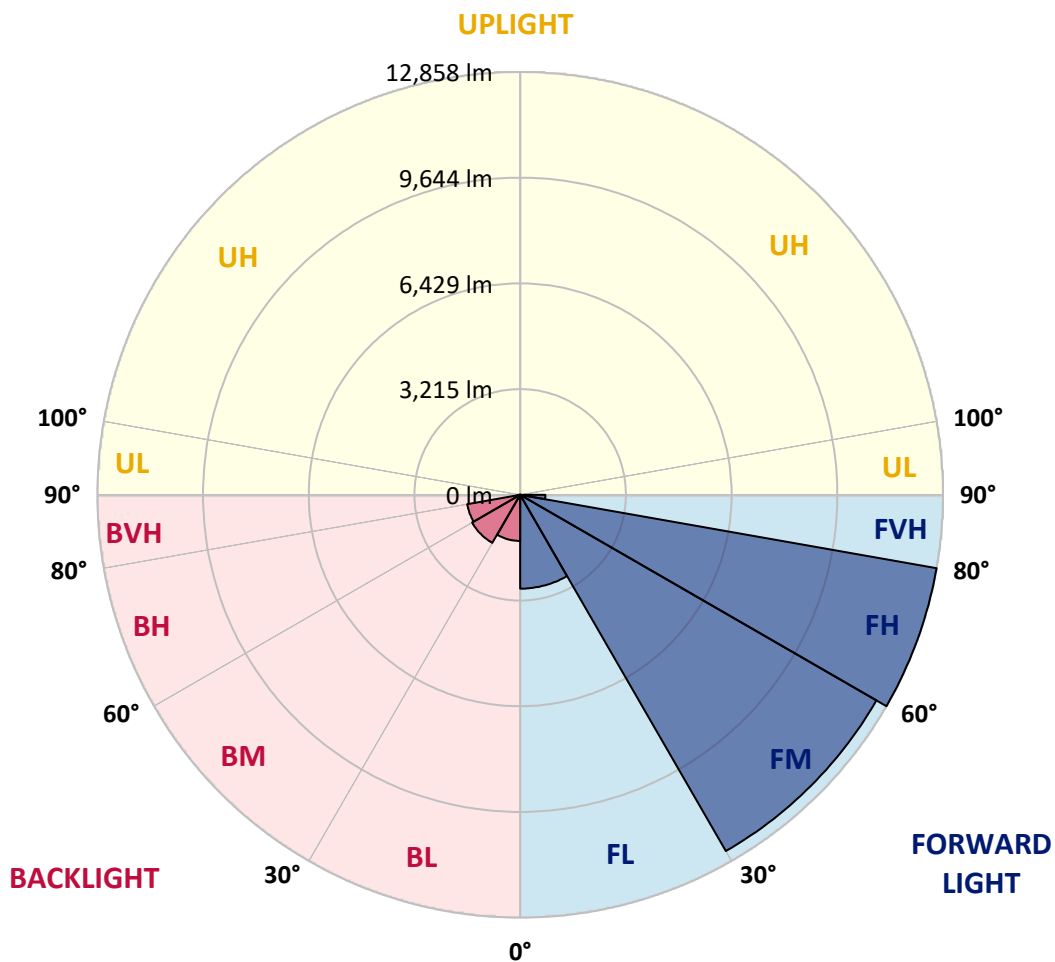
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2853.5	8.4			
FM (30°-60°)	12508.7	37.0			
FH (60°-80°)	12858.1	38.0			G5
FVH (80°-90°)	766.2	2.3			G5
BL (0°-30°)	1402.6	4.2	B3/2500		
BM (30°-60°)	1689.1	5.0	B2/2500		
BH (60°-80°)	1634.5	4.8	B3/2500		G3/2500
BVH (80°-90°)	81.6	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°	8611.3	8611.3	8611.3	8611.3	8611.3	8611.3	8611.3	8611.3	8611.3	8611.3	8611.3
2.5°	8787.6	8807.2	8799.0	8794.1	8808.8	8786.0	8738.6	8723.9	8701.1	8647.2	8555.8
5°	8457.8	8516.6	8513.3	8557.4	8630.9	8650.5	8629.2	8632.5	8590.1	8523.1	8371.3
7.5°	7888.1	7912.6	7925.7	8022.0	8155.8	8263.6	8355.0	8384.4	8364.8	8307.6	8111.8
10°	7300.4	7320.0	7351.0	7463.7	7633.4	7782.0	7955.0	8054.6	8097.1	8087.3	7868.5
12.5°	6796.0	6815.6	6856.4	6983.7	7186.1	7369.0	7620.4	7744.4	7845.7	7906.1	7671.0
15°	6343.8	6386.2	6425.4	6572.3	6799.2	7039.2	7323.3	7480.0	7636.7	7772.2	7496.3
17.5°	5991.2	6033.6	6056.5	6190.3	6431.9	6725.8	7058.8	7243.3	7439.2	7661.2	7323.3
20°	5787.1	5806.7	5796.9	5872.0	6089.1	6400.9	6796.0	7009.8	7246.5	7556.7	7150.2
22.5°	5730.0	5731.6	5695.7	5687.5	5827.9	6090.8	6515.2	6774.8	7065.3	7488.1	7001.7
25°	5868.7	5863.8	5765.9	5685.9	5700.6	5854.0	6244.2	6546.2	6913.5	7473.5	6887.4
27.5°	6177.3	6192.0	6046.7	5896.5	5747.9	5743.0	6038.5	6356.8	6789.5	7540.4	6838.4
30°	6609.9	6634.4	6479.3	6288.3	6009.1	5779.0	5958.5	6244.2	6712.7	7679.1	6830.3
32.5°	7083.3	7109.4	6991.9	6791.1	6425.4	6001.0	6014.0	6254.0	6709.5	7873.4	6885.8
35°	7587.7	7617.1	7556.7	7386.9	6980.4	6410.7	6226.2	6412.3	6815.6	8170.5	7034.3
37.5°	8150.9	8196.6	8213.0	8051.4	7617.1	6951.1	6574.0	6712.7	7055.5	8583.5	7306.9
40°	8962.3	9025.9	9021.0	8789.2	8346.8	7680.8	7111.0	7147.0	7429.4	9135.3	7742.8
42.5°	10516.4	10529.4	10123.0	9618.5	9150.0	8448.0	7744.4	7715.1	7945.2	9834.0	8384.4
45°	12493.3	12439.4	11535.0	10560.5	9989.1	9329.6	8568.8	8425.2	8599.9	10686.2	9187.6
47.5°	14133.9	14009.9	12867.1	11522.0	10877.2	10287.8	9536.9	9285.5	9381.8	11652.6	10225.8
50°	14703.7	14610.6	13663.8	12321.9	11717.9	11456.7	10728.6	10372.7	10398.8	12805.1	11442.0
52.5°	14581.2	14568.2	13936.4	12849.2	12504.7	12684.3	12416.6	11935.0	11680.3	14085.0	12754.5
55°	14292.3	14320.0	14091.5	13463.0	13404.2	13869.5	14622.0	14266.2	13474.4	15376.3	14111.1
57.5°	13288.3	13360.1	13863.0	14235.2	14852.2	15544.4	16398.2	16297.0	15405.6	16772.0	15724.0
60°	10705.7	10872.3	12220.7	14085.0	16342.7	18507.3	18889.3	18654.3	17397.3	18504.1	17854.3
62.5°	7501.2	7674.2	9277.3	12194.6	16097.8	21853.9	23342.7	22328.9	20257.3	21055.6	20611.6
65°	4015.9	4099.1	5323.5	8461.1	13590.3	22544.4	29851.4	28308.7	24785.8	24201.4	22970.5
67.5°	2215.3	2261.0	2729.5	4272.2	8704.3	19852.5	33997.9	35163.4	30445.6	26295.9	22541.2
69°	2003.0	2045.5	2352.4	3235.6	5824.7	16414.5	33593.0	36970.6	32927.0	26088.5	20954.4
70°	1959.0	1998.1	2274.0	2982.5	4714.6	13529.9	32236.4	36508.6	33517.9	25345.8	19570.1
72.5°	1763.1	1805.5	2073.2	2678.9	4028.9	6745.4	25535.1	30868.4	30430.9	21976.3	14844.1
75°	1643.9	1683.1	2136.9	2623.4	3857.5	4268.9	16834.0	22750.1	22369.8	15373.0	8004.0
77.5°	703.6	700.3	990.9	2220.2	3914.7	4133.4	9045.5	14212.3	12966.7	6570.7	2298.5
80°	470.2	462.0	470.2	653.0	3589.8	4156.3	4739.1	7213.9	5449.2	1674.9	1132.9
82.5°	404.9	398.3	413.0	398.3	1261.9	4744.0	4028.9	3836.3	2590.7	951.7	561.6
85°	272.6	261.2	355.9	357.5	595.9	4215.0	4538.3	3240.5	2096.1	564.8	277.5
87.5°	130.6	127.3	207.3	253.0	349.3	1712.5	5091.7	3320.4	2114.1	288.9	132.2
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):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	8611.3	8611.3	8611.3	8611.3	8611.3	8611.3	8611.3	8611.3	8611.3	8611.3	8611.3
2.5°	8528.0	8461.1	8395.8	8317.4	8235.8	8144.4	8098.7	8053.0	8041.6	8028.5	7982.8
5°	8293.0	8198.3	8035.0	7855.5	7666.1	7481.6	7341.2	7253.1	7186.1	7151.9	7091.5
7.5°	7989.3	7850.6	7564.9	7254.7	6936.4	6645.8	6394.4	6236.0	6085.9	6015.7	5935.7
10°	7700.4	7493.0	7049.0	6591.9	6134.8	5695.7	5282.7	4990.5	4730.9	4585.6	4482.8
12.5°	7452.2	7168.2	6552.7	5934.0	5307.2	4681.9	4063.2	3576.7	3170.3	2956.4	2847.0
15°	7210.6	6867.8	6081.0	5295.7	4490.9	3640.4	2827.4	2275.7	1939.4	1805.5	1759.8
17.5°	6991.9	6552.7	5607.5	4652.5	3648.6	2620.1	1900.2	1596.6	1467.6	1423.5	1408.8
20°	6755.2	6234.4	5116.2	3980.0	2770.3	1831.6	1483.9	1350.1	1297.8	1284.8	1278.2
22.5°	6526.6	5921.0	4646.0	3260.0	1990.0	1413.7	1275.0	1219.5	1211.3	1222.7	1222.7
25°	6332.4	5640.2	4138.3	2507.5	1461.1	1190.1	1141.1	1128.0	1159.1	1201.5	1209.7
27.5°	6187.1	5410.0	3598.0	1851.2	1164.0	1035.0	1033.4	1054.6	1131.3	1212.9	1229.3
30°	6087.5	5191.3	3020.1	1335.4	976.2	910.9	937.0	982.7	1095.4	1211.3	1242.3
32.5°	6036.9	5029.6	2417.7	1033.4	835.8	799.9	844.0	899.5	1010.5	1118.2	1159.1
35°	6076.1	4910.5	1849.6	861.9	737.9	710.1	755.8	809.7	875.0	920.7	951.7
37.5°	6223.0	4863.1	1395.8	772.2	670.9	644.8	680.7	711.8	737.9	750.9	765.6
40°	6539.7	4913.7	1118.2	726.4	633.4	600.7	615.4	626.9	643.2	656.3	662.8
42.5°	7006.6	5065.6	1002.3	708.5	613.8	566.5	563.2	568.1	589.3	613.8	618.7
45°	7659.6	5333.3	994.2	719.9	604.0	538.7	524.0	530.6	563.2	600.7	607.3
47.5°	8493.8	5741.4	1059.5	754.2	612.2	524.0	499.5	507.7	548.5	599.1	607.3
50°	9504.3	6311.1	1168.8	804.8	648.1	527.3	491.4	496.3	538.7	594.2	602.4
52.5°	10697.6	7119.2	1288.0	853.8	685.6	548.5	497.9	486.5	525.7	574.6	584.4
55°	12024.8	8155.8	1410.5	897.9	705.2	574.6	511.0	473.4	501.2	542.0	550.1
57.5°	13654.0	9605.5	1622.7	940.3	718.3	592.6	524.0	460.4	470.2	499.5	506.1
60°	15859.5	11655.8	1996.5	1010.5	747.7	599.1	522.4	448.9	439.1	455.5	458.7
62.5°	18502.4	13882.5	2308.3	1098.7	796.6	604.0	512.6	440.8	413.0	413.0	416.3
65°	20071.2	14478.4	2135.3	1172.1	837.5	599.1	501.2	432.6	393.4	375.5	377.1
67.5°	18740.8	12733.3	1830.0	1186.8	835.8	576.3	483.2	417.9	373.8	346.1	344.5
69°	17074.0	10986.5	1692.9	1147.6	796.6	546.9	460.4	401.6	359.1	329.8	328.1
70°	15730.5	9920.5	1603.1	1105.2	754.2	525.7	442.4	386.9	347.7	320.0	316.7
72.5°	11437.1	6500.5	1369.6	950.1	622.0	440.8	382.0	339.6	310.2	293.8	290.6
75°	5715.3	3100.1	1111.7	770.5	476.7	352.6	313.4	284.1	269.4	266.1	264.5
77.5°	1877.3	1420.3	795.0	574.6	354.2	275.9	253.0	231.8	228.5	238.3	235.1
80°	1031.7	826.0	504.4	380.4	241.6	202.4	199.2	187.7	192.6	209.0	205.7
82.5°	525.7	429.3	311.8	228.5	163.2	145.3	158.3	151.8	158.3	173.0	171.4
85°	259.6	235.1	197.5	138.8	107.7	93.1	112.6	117.5	120.8	132.2	132.2
87.5°	150.2	138.8	104.5	65.3	53.9	49.0	65.3	63.7	75.1	81.6	80.0
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)