

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: P299932

Luminaire Tested: **GLNA-AF-10-LED-E1-SL3-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299932
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-SL3-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 4000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Square Medium OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 47437.2 lumens
Efficiency: N/A
Efficacy: 113.2 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

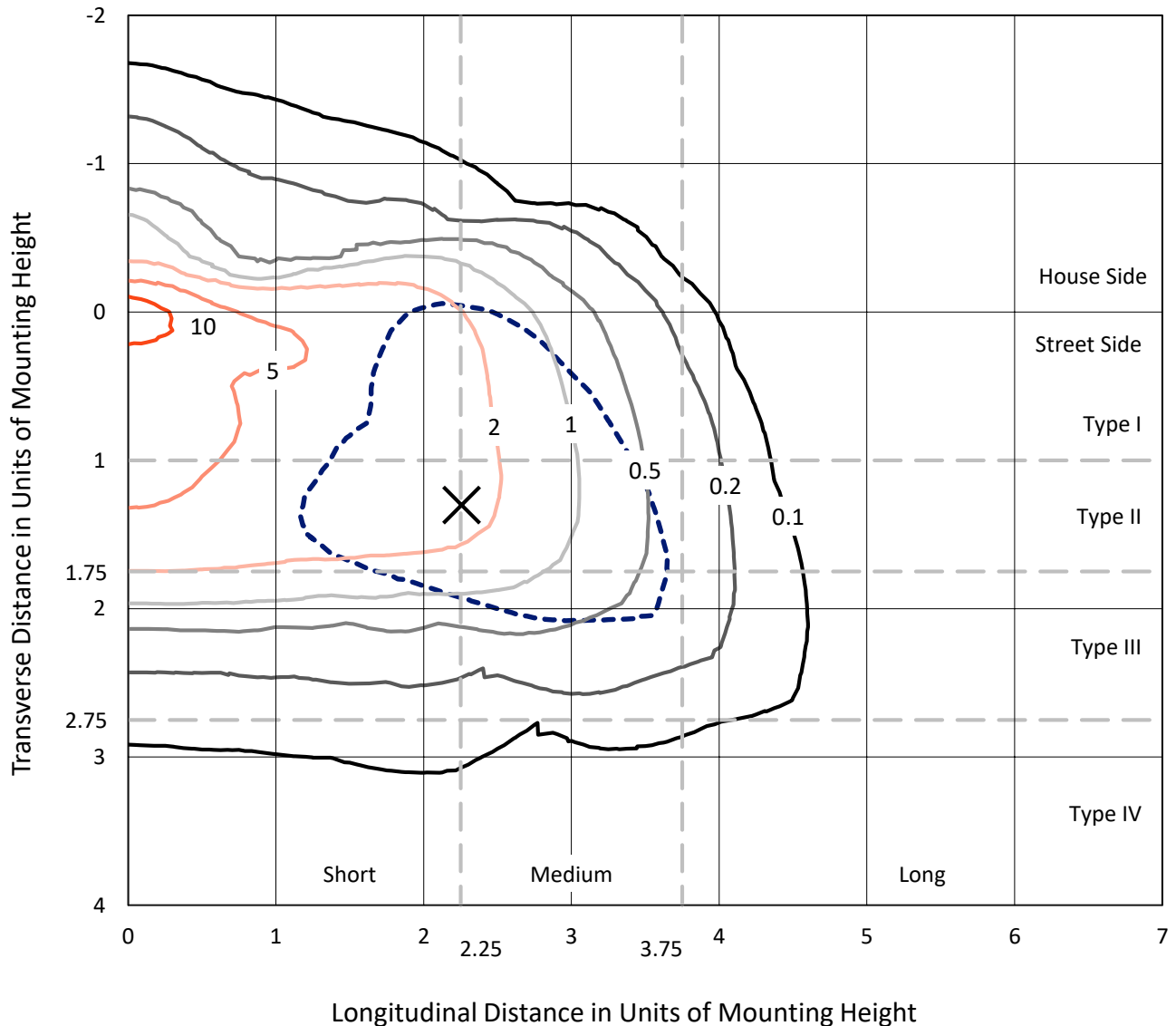
Input Watts (W): 419
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

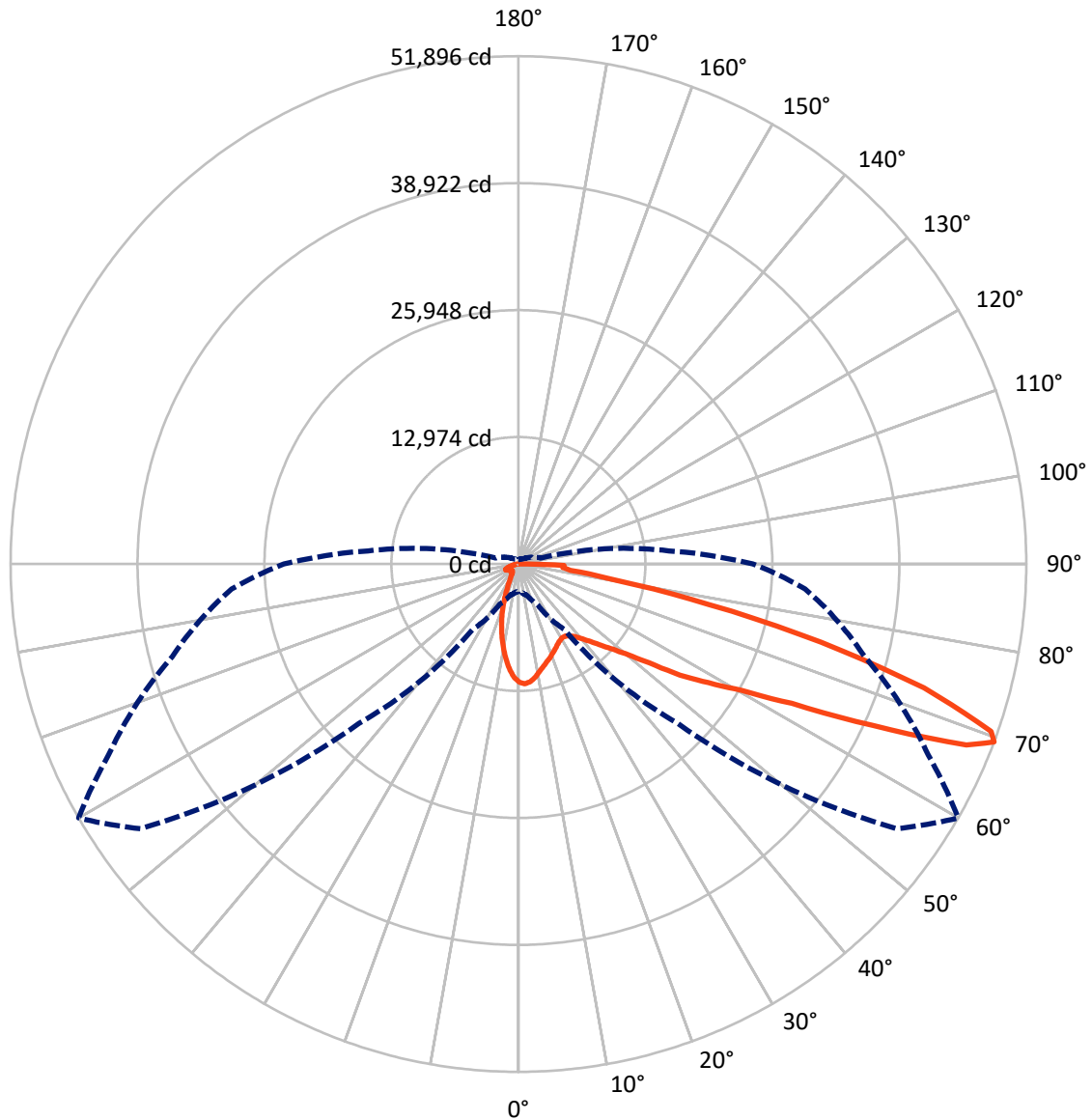
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 13.4 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	6748.8	0.0	6748.8
	% Fixture	14.2	0.0	14.2
Street Side	Lumens	40688.4	0.0	40688.4
	% Fixture	85.8	0.0	85.8
Total	Lumens	47437.2	0.0	47437.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1022.1	2.2
10°-20°	2177.6	4.6
20°-30°	2774.6	5.8
30°-40°	3814.4	8.0
40°-50°	6189.2	13.0
50°-60°	9925.9	20.9
60°-70°	13210.6	27.8
70°-80°	7132.7	15.0
80°-90°	1190.1	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°	47437.2	100.0
0°-180°	47437.2	100.0

Coefficient of Utilization



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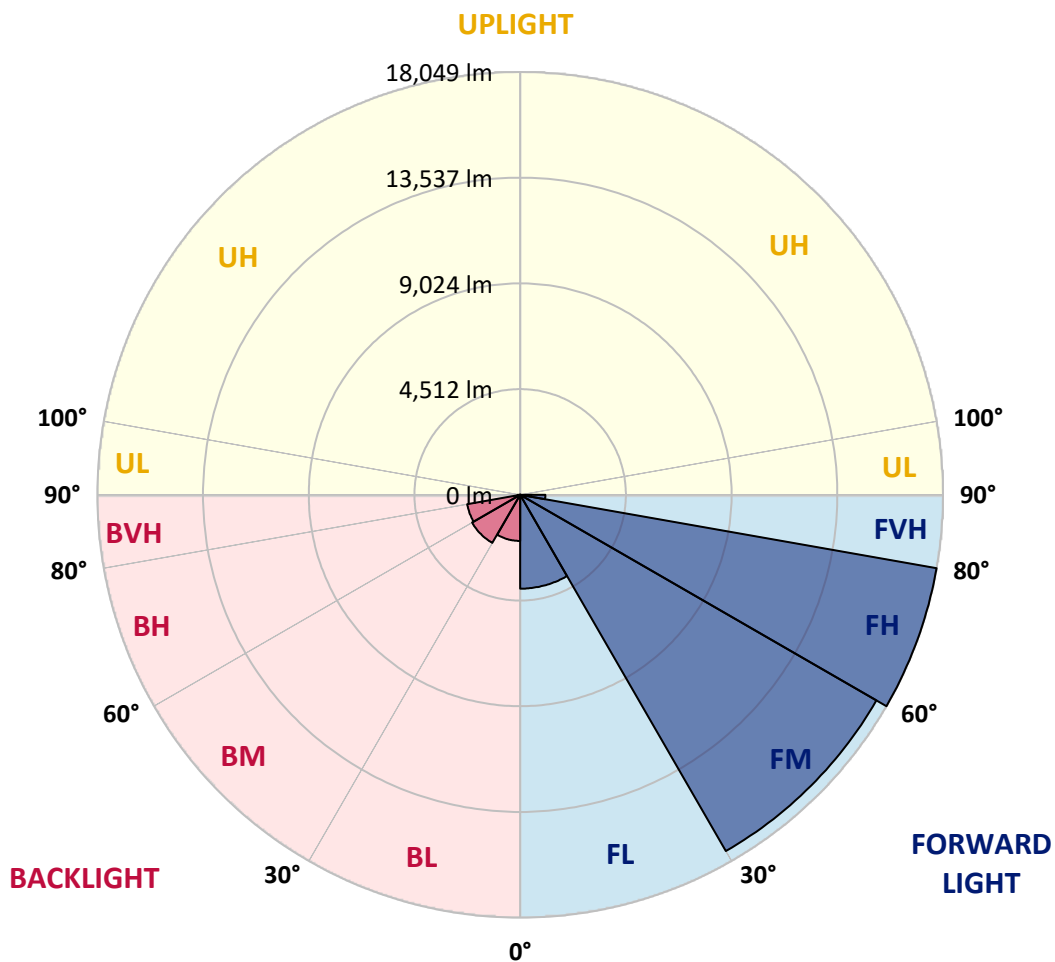
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	4005.4	8.4			
FM	(30°-60°)	17558.5	37.0			
FH	(60°-80°)	18048.9	38.0			G5
FVH	(80°-90°)	1075.5	2.3			G5
BL	(0°-30°)	1968.8	4.2	B3/2500		
BM	(30°-60°)	2371.0	5.0	B2/2500		
BH	(60°-80°)	2294.4	4.8	B3/2500		G3/2500
BVH	(80°-90°)	114.6	0.2			G2/225
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°	12087.7	12087.7	12087.7	12087.7	12087.7	12087.7	12087.7	12087.7	12087.7	12087.7	12087.7
2.5°	12335.2	12362.7	12351.2	12344.4	12365.0	12332.9	12266.5	12245.8	12213.7	12138.1	12009.8
5°	11872.3	11954.8	11950.2	12012.1	12115.2	12142.7	12112.9	12117.5	12057.9	11964.0	11750.9
7.5°	11072.6	11106.9	11125.3	11260.5	11448.4	11599.6	11727.9	11769.2	11741.7	11661.5	11386.5
10°	10247.6	10275.1	10318.7	10476.8	10715.1	10923.6	11166.5	11306.3	11365.9	11352.1	11045.1
12.5°	9539.6	9567.1	9624.3	9803.1	10087.2	10343.9	10696.8	10870.9	11013.0	11097.8	10767.8
15°	8904.8	8964.4	9019.4	9225.6	9544.1	9881.0	10279.7	10499.7	10719.7	10909.9	10522.6
17.5°	8409.8	8469.4	8501.5	8689.4	9028.5	9441.0	9908.5	10167.4	10442.4	10754.1	10279.7
20°	8123.4	8150.9	8137.2	8242.6	8547.3	8985.0	9539.6	9839.7	10172.0	10607.4	10036.8
22.5°	8043.2	8045.5	7995.1	7983.6	8180.7	8549.6	9145.4	9509.8	9917.7	10511.2	9828.3
25°	8238.0	8231.1	8093.6	7981.3	8002.0	8217.4	8765.0	9189.0	9704.5	10490.5	9667.9
27.5°	8671.1	8691.7	8487.8	8276.9	8068.4	8061.5	8476.3	8923.1	9530.4	10584.5	9599.1
30°	9278.3	9312.7	9095.0	8826.9	8435.0	8111.9	8364.0	8765.0	9422.7	10779.3	9587.7
32.5°	9942.9	9979.5	9814.5	9532.7	9019.4	8423.6	8441.9	8778.8	9418.1	11052.0	9665.6
35°	10650.9	10692.2	10607.4	10369.1	9798.5	8998.8	8739.8	9001.1	9567.1	11469.0	9874.1
37.5°	11441.5	11505.7	11528.6	11301.7	10692.2	9757.2	9227.9	9422.7	9903.9	12048.8	10256.8
40°	12580.4	12669.8	12662.9	12337.5	11716.5	10781.6	9981.8	10032.2	10428.7	12823.3	10868.6
42.5°	14761.9	14780.2	14209.7	13501.6	12843.9	11858.6	10870.9	10829.7	11152.8	13804.1	11769.2
45°	17536.9	17461.3	16191.8	14823.8	14021.7	13096.0	12028.1	11826.5	12071.7	15000.2	12896.6
47.5°	19839.9	19665.7	18061.7	16173.5	15268.3	14441.1	13387.0	13034.1	13169.3	16356.8	14354.0
50°	20639.6	20509.0	19179.9	17296.3	16448.5	16081.8	15059.8	14560.3	14596.9	17974.6	16061.2
52.5°	20467.8	20449.4	19562.6	18036.5	17553.0	17805.0	17429.2	16753.2	16395.8	19771.1	17903.6
55°	20062.2	20101.1	19780.3	18898.1	18815.6	19468.7	20525.1	20025.5	18914.1	21583.7	19807.8
57.5°	18652.9	18753.7	19459.5	19982.0	20848.2	21819.8	23018.2	22876.1	21625.0	23543.0	22071.8
60°	15027.7	15261.5	17154.2	19771.1	22940.3	25978.8	26515.1	26185.1	24420.6	25974.3	25062.2
62.5°	10529.5	10772.4	13022.7	17117.6	22596.6	30676.4	32766.3	31343.3	28435.3	29555.9	28932.6
65°	5637.1	5754.0	7472.6	11876.9	19076.8	31645.8	41902.5	39737.1	34792.0	33971.6	32243.8
67.5°	3109.6	3173.7	3831.4	5996.9	12218.3	27867.1	47723.0	49359.1	42736.7	36911.6	31641.2
69°	2811.7	2871.3	3302.1	4541.8	8176.1	23041.1	47154.7	51895.8	46219.8	36620.6	29413.8
70°	2749.8	2804.8	3192.1	4186.6	6617.9	18992.0	45250.4	51247.3	47049.3	35578.0	27470.6
72.5°	2474.8	2534.4	2910.2	3760.4	5655.4	9468.5	35843.8	43330.2	42716.0	30848.3	20836.7
75°	2307.6	2362.5	2999.6	3682.5	5414.8	5992.3	23630.0	31934.5	31400.6	21579.1	11235.3
77.5°	987.6	983.1	1390.9	3116.5	5495.0	5802.1	12697.3	19949.9	18201.5	9223.3	3226.4
80°	660.0	648.5	660.0	916.6	5039.0	5834.2	6652.3	10126.2	7649.1	2351.1	1590.3
82.5°	568.3	559.1	579.8	559.1	1771.3	6659.1	5655.4	5385.0	3636.6	1336.0	788.3
85°	382.7	366.6	499.5	501.8	836.4	5916.7	6370.4	4548.6	2942.3	792.9	389.6
87.5°	183.3	178.7	291.0	355.2	490.4	2403.8	7147.2	4660.9	2967.5	405.6	185.6
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°	12087.7	12087.7	12087.7	12087.7	12087.7	12087.7	12087.7	12087.7	12087.7	12087.7	12087.7
2.5°	11970.8	11876.9	11785.2	11675.2	11560.7	11432.3	11368.2	11304.0	11288.0	11269.6	11205.5
5°	11640.9	11508.0	11278.8	11026.7	10760.9	10502.0	10304.9	10181.2	10087.2	10039.1	9954.3
7.5°	11214.6	11019.9	10618.9	10183.5	9736.6	9328.7	8975.8	8753.6	8542.7	8444.2	8331.9
10°	10809.1	10518.0	9894.7	9253.1	8611.5	7995.1	7415.3	7005.1	6640.8	6436.9	6292.5
12.5°	10460.7	10062.0	9198.1	8329.6	7449.7	6572.1	5703.6	5020.7	4450.1	4149.9	3996.4
15°	10121.6	9640.4	8535.9	7433.7	6303.9	5110.1	3968.9	3194.4	2722.3	2534.4	2470.2
17.5°	9814.5	9198.1	7871.3	6530.8	5121.5	3677.9	2667.3	2241.1	2060.1	1998.2	1977.6
20°	9482.3	8751.3	7181.6	5586.7	3888.7	2571.1	2083.0	1895.1	1821.8	1803.4	1794.3
22.5°	9161.5	8311.3	6521.6	4576.1	2793.4	1984.4	1789.7	1711.8	1700.3	1716.3	1716.3
25°	8888.8	7917.2	5809.0	3519.8	2050.9	1670.5	1601.8	1583.4	1627.0	1686.6	1698.0
27.5°	8684.8	7594.1	5050.5	2598.6	1633.8	1452.8	1450.5	1480.3	1588.0	1702.6	1725.5
30°	8545.0	7287.0	4239.3	1874.5	1370.3	1278.7	1315.3	1379.5	1537.6	1700.3	1743.8
32.5°	8474.0	7060.1	3393.7	1450.5	1173.3	1122.8	1184.7	1262.6	1418.4	1569.7	1627.0
35°	8529.0	6892.9	2596.3	1209.9	1035.8	996.8	1061.0	1136.6	1228.2	1292.4	1336.0
37.5°	8735.2	6826.4	1959.2	1083.9	941.8	905.1	955.6	999.1	1035.8	1054.1	1074.7
40°	9179.8	6897.4	1569.7	1019.7	889.1	843.3	863.9	879.9	902.9	921.2	930.4
42.5°	9835.2	7110.6	1407.0	994.5	861.6	795.2	790.6	797.4	827.2	861.6	868.5
45°	10751.8	7486.4	1395.5	1010.6	847.9	756.2	735.6	744.7	790.6	843.3	852.4
47.5°	11922.7	8059.2	1487.2	1058.7	859.3	735.6	701.2	712.7	769.9	841.0	852.4
50°	13341.2	8859.0	1640.7	1129.7	909.7	740.2	689.7	696.6	756.2	834.1	845.6
52.5°	15016.3	9993.3	1808.0	1198.5	962.4	769.9	698.9	682.9	737.9	806.6	820.4
55°	16879.3	11448.4	1979.9	1260.3	989.9	806.6	717.2	664.5	703.5	760.8	772.2
57.5°	19166.2	13483.2	2277.8	1319.9	1008.3	831.8	735.6	646.2	660.0	701.2	710.4
60°	22262.0	16361.4	2802.5	1418.4	1049.5	841.0	733.3	630.2	616.4	639.3	643.9
62.5°	25972.0	19487.0	3240.2	1542.2	1118.3	847.9	719.5	618.7	579.8	579.8	584.3
65°	28174.1	20323.4	2997.3	1645.3	1175.5	841.0	703.5	607.3	552.3	527.0	529.3
67.5°	26306.5	17873.8	2568.8	1665.9	1173.3	808.9	678.3	586.6	524.8	485.8	483.5
69°	23966.9	15421.9	2376.3	1610.9	1118.3	767.7	646.2	563.7	504.1	462.9	460.6
70°	22081.0	13925.5	2250.3	1551.4	1058.7	737.9	621.0	543.1	488.1	449.1	444.6
72.5°	16054.3	9124.8	1922.6	1333.7	873.1	618.7	536.2	476.6	435.4	412.5	407.9
75°	8022.6	4351.6	1560.5	1081.6	669.1	495.0	440.0	398.7	378.1	373.5	371.2
77.5°	2635.2	1993.6	1116.0	806.6	497.3	387.3	355.2	325.4	320.8	334.6	330.0
80°	1448.2	1159.5	708.1	533.9	339.1	284.1	279.6	263.5	270.4	293.3	288.7
82.5°	737.9	602.7	437.7	320.8	229.2	203.9	222.3	213.1	222.3	242.9	240.6
85°	364.4	330.0	277.3	194.8	151.2	130.6	158.1	165.0	169.6	185.6	185.6
87.5°	210.8	194.8	146.7	91.7	75.6	68.7	91.7	89.4	105.4	114.6	112.3
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)