

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: P299177

Luminaire Tested: **GLNA-AF-04-LED-E1-SL2-7050-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299177
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24286)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-04-LED-E1-SL2-7050-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 5000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Narrow OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18937.5 lumens
Efficiency: N/A
Efficacy: 110.7 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G3

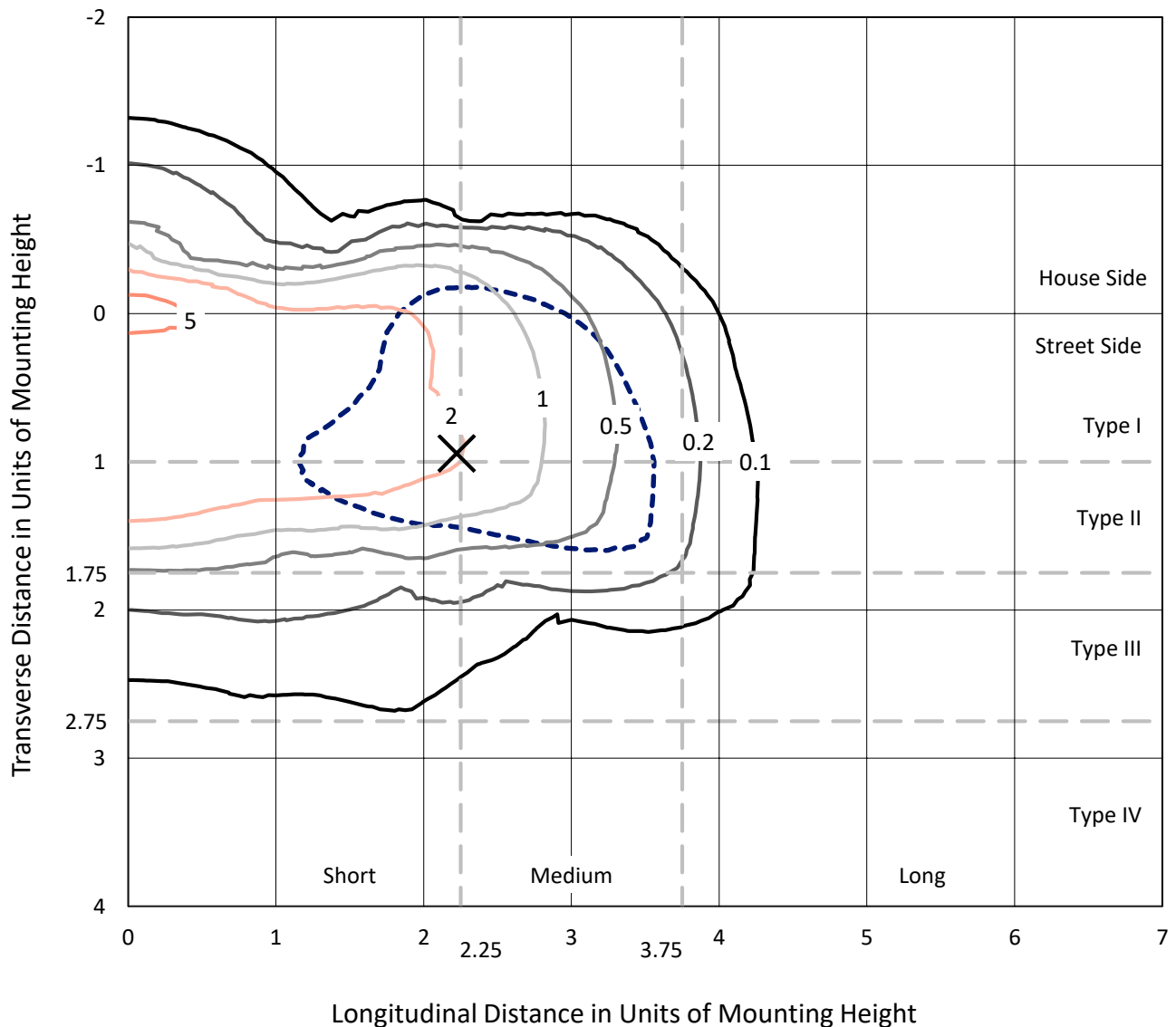
Input Watts (W): 171
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

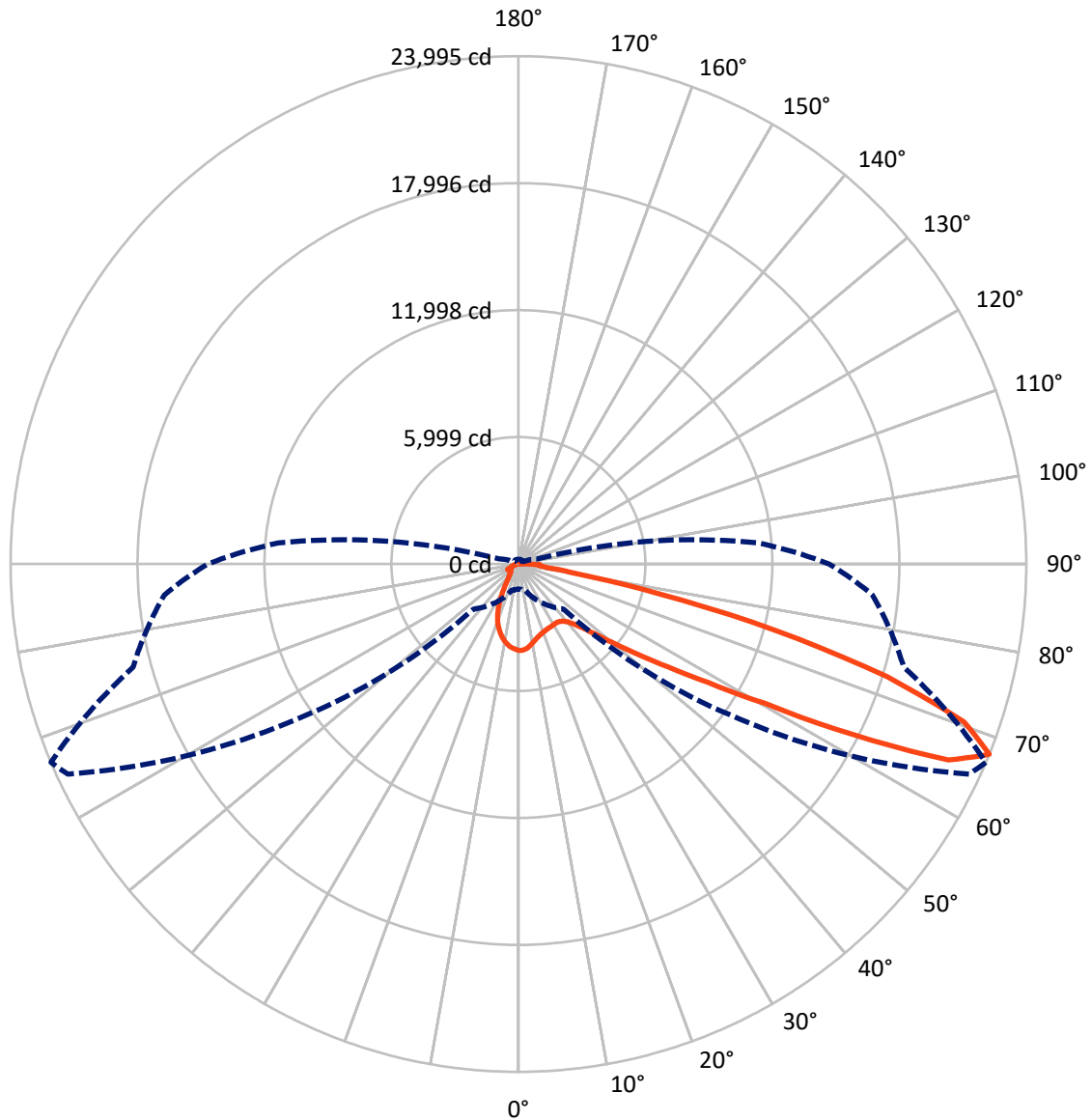
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.5 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3137.7	0.0	3137.7
	% Fixture	16.6	0.0	16.6
Street Side	Lumens	15799.8	0.0	15799.8
	% Fixture	83.4	0.0	83.4
Total	Lumens	18937.5	0.0	18937.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	348.5	1.8
10°-20°	806.4	4.3
20°-30°	1093.0	5.8
30°-40°	1553.9	8.2
40°-50°	2599.7	13.7
50°-60°	4112.6	21.7
60°-70°	5239.1	27.7
70°-80°	2744.2	14.5
80°-90°	440.1	2.3
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°	18937.5	100.0
0°-180°	18937.5	100.0

Coefficient of Utilization



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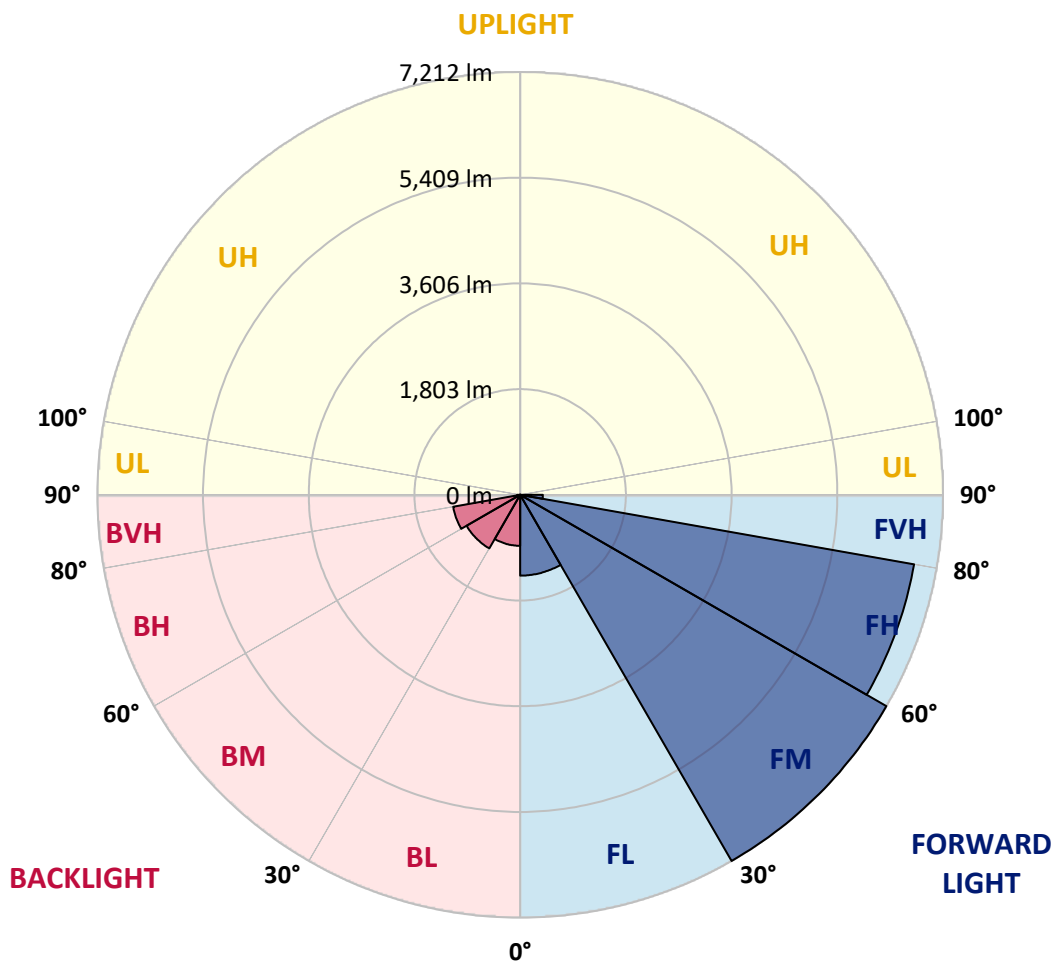
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1378.2	7.3			
FM	(30°-60°)	7211.8	38.1			
FH	(60°-80°)	6822.8	36.0			G3/7500
FVH	(80°-90°)	387.0	2.0			G3/500
BL	(0°-30°)	869.7	4.6	B2/1000		
BM	(30°-60°)	1054.4	5.6	B2/2500		
BH	(60°-80°)	1160.5	6.1	B3/2500		G3/2500
BVH	(80°-90°)	53.1	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	4084.8	4084.8	4084.8	4084.8	4084.8	4084.8	4084.8	4084.8	4084.8	4084.8	4084.8
2.5°	3916.7	3923.2	3943.8	3956.8	4015.7	4040.9	4058.6	4076.4	4079.2	4087.6	4079.2
5°	3505.8	3519.8	3558.1	3601.0	3715.0	3804.6	3898.9	3997.0	4014.7	4078.2	4096.0
7.5°	3187.3	3183.6	3215.3	3266.7	3383.4	3507.6	3672.9	3868.1	3906.4	4049.3	4118.4
10°	2954.8	2952.0	2985.6	3038.8	3150.0	3267.6	3454.4	3721.5	3775.7	4003.5	4139.9
12.5°	2782.9	2783.9	2817.5	2876.3	2989.3	3107.9	3297.5	3579.5	3648.6	3950.3	4162.3
15°	2669.0	2676.5	2703.6	2766.1	2876.3	2994.9	3180.8	3473.1	3550.6	3908.3	4187.5
17.5°	2630.7	2642.9	2652.2	2698.0	2792.3	2910.9	3093.0	3394.6	3476.8	3879.3	4209.9
20°	2666.2	2680.2	2662.5	2678.4	2738.1	2842.7	3023.9	3333.0	3417.0	3846.6	4212.7
22.5°	2818.4	2831.5	2779.2	2733.5	2729.7	2793.2	2966.9	3284.4	3371.3	3822.3	4213.6
25°	3086.5	3094.9	3007.1	2900.6	2797.0	2775.5	2926.8	3250.8	3343.3	3800.9	4195.9
27.5°	3415.2	3421.7	3320.9	3164.0	2955.7	2817.5	2912.8	3231.2	3327.4	3782.2	4166.0
30°	3814.9	3845.7	3710.3	3512.3	3208.8	2941.7	2940.8	3220.9	3309.7	3750.4	4107.2
32.5°	4223.9	4237.0	4143.6	3942.8	3549.7	3160.2	3019.2	3228.4	3305.0	3712.2	4032.5
35°	4638.6	4655.4	4594.7	4433.1	4015.7	3480.6	3172.4	3272.3	3333.9	3699.1	3980.2
37.5°	5175.5	5197.9	5113.9	4927.1	4582.5	3914.8	3427.3	3382.5	3422.7	3736.4	3964.3
40°	6024.4	6014.2	5768.5	5490.3	5202.6	4470.5	3791.5	3569.3	3592.6	3856.9	4012.9
42.5°	7012.5	6987.3	6564.2	6127.2	5884.3	5142.8	4273.4	3893.3	3888.7	4094.1	4183.8
45°	7800.7	7780.1	7399.1	6860.2	6666.0	5908.6	4896.3	4376.1	4341.6	4470.5	4499.4
47.5°	8227.4	8228.4	8008.9	7569.1	7564.4	6881.7	5696.6	5074.7	5014.9	5075.6	5044.8
50°	8078.0	8097.6	8074.3	7934.2	8384.3	8157.4	6741.6	6048.7	5928.2	5988.0	5869.4
52.5°	7355.2	7380.4	7518.6	7733.4	8728.9	9699.2	8276.9	7259.0	7118.9	7097.4	6965.8
55°	6073.9	6104.7	6386.8	6970.4	8442.2	10734.9	10699.4	8801.8	8578.6	8375.9	8319.9
57.5°	4186.6	4237.9	4691.8	5558.4	7514.9	11047.7	13584.1	11001.0	10547.2	9839.3	9852.4
60°	2359.9	2419.7	2954.8	3742.0	5643.4	10707.8	15778.8	14332.2	13374.0	11553.0	11650.1
62.5°	1500.7	1565.2	1971.4	2599.9	3386.2	8877.4	16678.1	18963.3	17746.4	13665.4	13760.6
65°	1215.0	1243.0	1434.4	2146.0	2458.9	5348.3	15995.4	22778.1	22324.3	16346.5	15902.0
67.5°	1186.0	1195.4	1294.4	1801.4	2358.0	3006.1	12758.6	23491.6	23995.0	18850.3	16793.9
70°	1172.0	1204.7	1458.7	1719.3	2258.1	2535.5	7667.1	21536.1	22330.8	19504.9	15606.9
72.5°	568.7	566.9	734.0	1554.9	2543.9	2629.8	3939.1	17425.2	18222.7	16898.5	12824.9
75°	458.5	419.3	400.6	569.7	2445.8	2715.7	2510.3	11990.0	12567.2	11329.8	7883.8
77.5°	435.2	388.5	355.8	356.7	1033.8	2880.1	2126.4	6636.1	6804.2	5117.6	2160.1
80°	360.5	317.5	294.2	331.5	500.6	2742.8	2299.2	3003.3	2755.9	1257.0	719.1
82.5°	250.3	227.9	221.3	278.3	400.6	1954.6	2673.7	1613.7	1353.2	629.4	443.6
85°	159.7	136.3	151.3	202.7	311.9	902.1	2754.0	1257.9	1000.2	399.7	250.3
87.5°	73.8	59.8	74.7	112.1	203.6	311.0	2620.5	1413.0	1030.1	211.1	157.8
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°	4084.8	4084.8	4084.8	4084.8	4084.8	4084.8	4084.8	4084.8	4084.8	4084.8	4084.8
2.5°	4086.6	4068.9	4054.9	4028.7	3999.8	3971.8	3946.6	3914.8	3905.5	3897.1	3910.1
5°	4099.7	4082.0	4030.6	3950.3	3861.6	3778.5	3695.3	3624.4	3580.5	3556.2	3570.2
7.5°	4119.3	4094.1	3987.6	3840.1	3680.4	3534.7	3384.4	3263.9	3175.2	3133.2	3145.3
10°	4137.1	4088.5	3914.8	3693.5	3460.0	3243.3	3006.1	2810.0	2664.3	2587.8	2606.4
12.5°	4144.5	4067.0	3813.0	3510.4	3190.1	2872.6	2523.3	2230.1	2020.9	1944.3	1928.5
15°	4152.0	4042.7	3700.9	3302.2	2864.2	2415.0	1925.7	1574.5	1400.8	1362.5	1354.1
17.5°	4153.9	4000.7	3573.9	3076.2	2482.2	1870.6	1316.8	1093.6	1094.5	1156.1	1163.6
20°	4134.3	3938.2	3419.8	2795.1	2024.6	1293.4	904.0	865.7	1006.7	1160.8	1179.5
22.5°	4089.4	3855.0	3245.2	2467.3	1500.7	851.7	699.5	741.5	923.6	1112.2	1133.7
25°	4032.5	3754.2	3038.8	2087.2	993.6	608.9	586.5	637.8	761.1	887.2	899.3
27.5°	3955.0	3634.6	2807.2	1652.0	645.3	501.5	516.4	551.0	601.4	657.4	663.1
30°	3855.0	3491.8	2559.8	1204.7	487.5	451.1	472.5	491.2	512.7	544.4	547.3
32.5°	3740.2	3354.5	2305.7	832.1	432.4	424.9	441.7	451.1	467.9	487.5	489.4
35°	3644.0	3223.7	2042.4	588.3	409.0	405.3	416.5	420.2	436.1	457.6	459.5
37.5°	3588.9	3117.3	1770.6	474.4	393.2	387.6	394.1	394.1	416.5	448.3	452.9
40°	3592.6	3058.4	1498.9	428.6	380.1	372.6	373.5	373.5	402.5	437.1	439.9
42.5°	3694.4	3073.4	1257.9	410.9	369.8	361.4	356.7	359.5	383.8	406.2	408.1
45°	3933.5	3178.9	1031.9	399.7	359.5	356.7	346.5	345.5	354.9	365.1	365.1
47.5°	4325.7	3387.2	878.8	392.2	351.1	350.2	338.1	325.9	325.0	328.7	328.7
50°	4963.5	3745.8	776.1	383.8	345.5	338.1	324.1	305.4	298.8	301.6	301.6
52.5°	5919.8	4385.5	736.8	372.6	333.4	321.3	305.4	286.7	281.1	282.0	282.0
55°	7174.0	5367.9	731.2	359.5	320.3	300.7	287.6	273.6	267.1	269.0	269.0
57.5°	8706.5	6726.7	831.1	339.0	302.6	280.2	272.7	263.4	258.7	261.5	260.6
60°	10569.6	8504.8	1232.7	317.5	284.8	261.5	261.5	254.0	250.3	253.1	252.1
62.5°	12715.6	10547.2	1733.3	301.6	266.2	246.5	250.3	246.5	242.8	244.7	243.7
65°	14618.9	11878.0	1623.1	289.5	247.5	232.5	239.1	237.2	234.4	236.3	235.3
67.5°	14674.0	11384.9	911.5	276.4	229.7	218.5	227.9	226.9	225.1	226.9	226.0
70°	13095.7	9613.3	513.6	252.1	211.1	201.7	214.8	213.9	212.0	215.7	214.8
72.5°	10492.1	6976.0	375.4	222.3	192.4	184.0	198.9	198.0	198.0	203.6	200.8
75°	6037.5	3589.8	299.8	190.5	172.8	166.2	179.3	180.2	182.1	189.6	184.0
77.5°	1721.1	1118.8	244.7	161.6	148.5	145.7	158.8	160.6	161.6	170.0	162.5
80°	639.7	515.5	201.7	135.4	121.4	122.3	134.5	137.3	138.2	146.6	137.3
82.5°	408.1	339.9	163.4	104.6	95.3	94.3	109.3	113.0	113.0	113.9	108.3
85°	238.1	203.6	123.3	75.6	67.2	64.4	81.2	87.8	85.0	83.1	79.4
87.5°	159.7	140.1	75.6	42.0	36.4	34.6	47.6	52.3	50.4	47.6	44.8
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)