

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: P301164

Luminaire Tested: **GLNA-AF-05-LED-E1-T3R-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301164
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194839)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-05-LED-E1-T3R-7027-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21276.1 lumens
Efficiency: N/A
Efficacy: 101.3 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B2 - U0 - G4

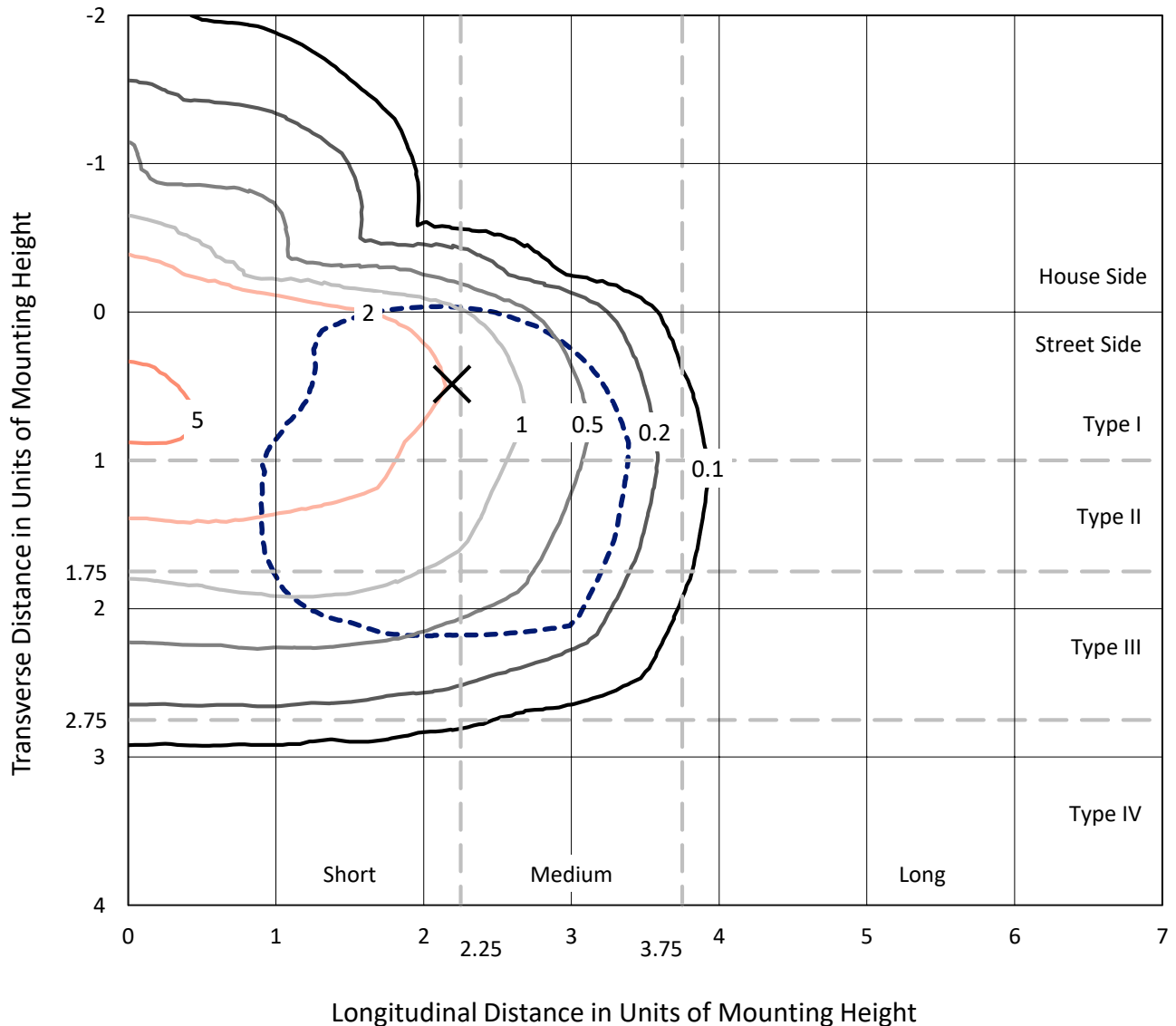
Input Watts (W): 210
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

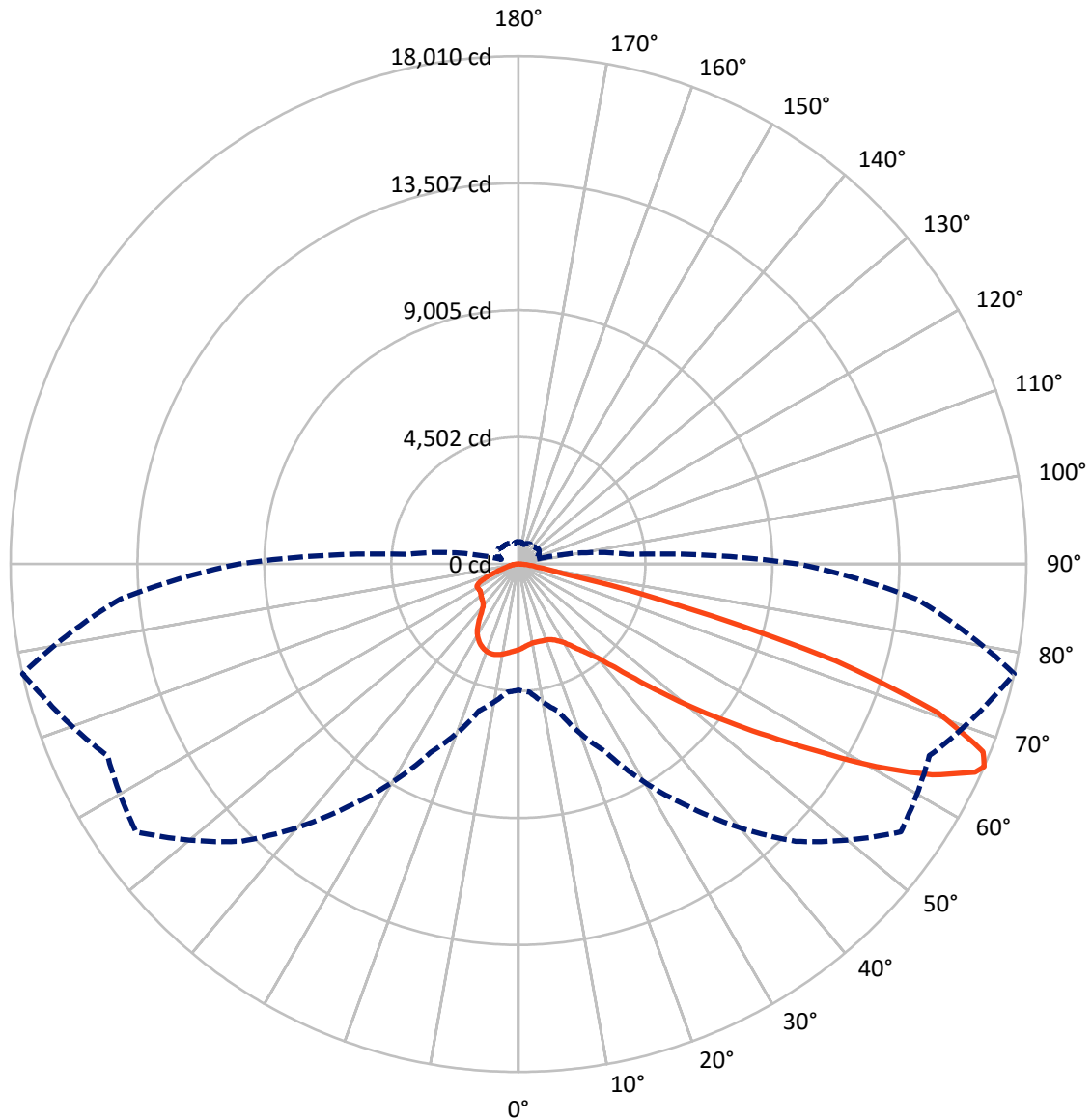
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3634.9	0.0	3634.9
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	17641.2	0.0	17641.2
	% Fixture	82.9	0.0	82.9
Total	Lumens	21276.1	0.0	21276.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	270.9	1.3
10°-20°	764.2	3.6
20°-30°	1304.2	6.1
30°-40°	2087.8	9.8
40°-50°	3225.5	15.2
50°-60°	4574.8	21.5
60°-70°	6119.9	28.8
70°-80°	2657.8	12.5
80°-90°	271.0	1.3
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°	21276.1	100.0
0°-180°	21276.1	100.0



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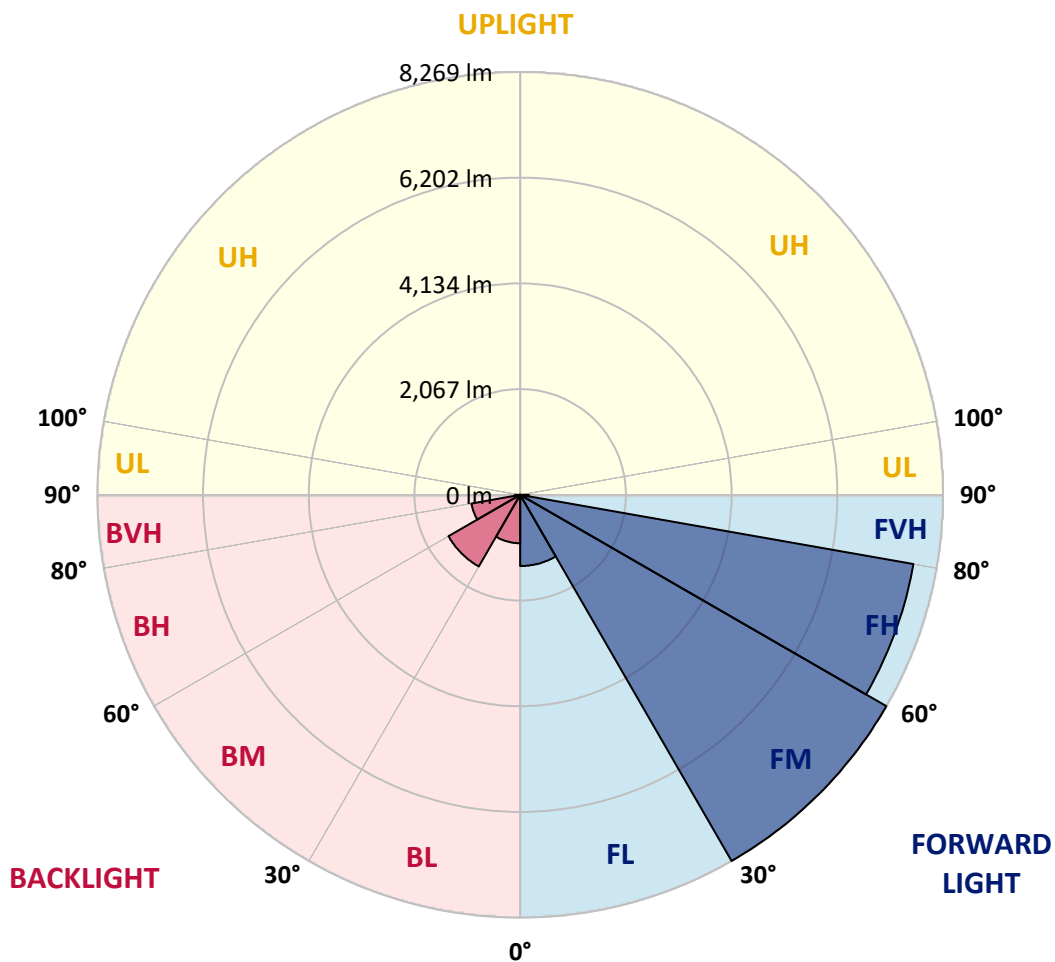
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1392.6	6.5			
FM	(30°-60°)	8269.0	38.9			
FH	(60°-80°)	7809.6	36.7			G4/12000
FVH	(80°-90°)	170.0	0.8			G2/225
BL	(0°-30°)	946.7	4.4	B2/1000		
BM	(30°-60°)	1619.1	7.6	B2/2500		
BH	(60°-80°)	968.1	4.5	B2/1000		G2/1000
BVH	(80°-90°)	101.0	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	3031.9	3031.9	3031.9	3031.9	3031.9	3031.9	3031.9	3031.9	3031.9	3031.9	3031.9
2.5°	2682.2	2700.1	2715.4	2729.4	2757.4	2803.6	2856.9	2900.1	2962.5	2974.7	3007.9
5°	2435.9	2435.9	2447.8	2469.1	2507.2	2576.6	2649.0	2745.5	2881.2	2913.2	3001.8
7.5°	2316.3	2317.2	2324.2	2342.2	2375.4	2438.7	2518.1	2632.0	2815.8	2869.1	3019.7
10°	2360.5	2350.4	2335.2	2326.4	2331.2	2368.4	2443.9	2570.5	2775.6	2843.8	3060.2
12.5°	2607.6	2588.7	2536.4	2467.0	2400.6	2373.5	2417.7	2541.3	2758.6	2838.0	3113.5
15°	3011.8	3003.9	2906.2	2762.5	2601.8	2467.0	2436.9	2530.3	2760.4	2845.0	3176.8
17.5°	3518.6	3507.3	3378.9	3169.8	2907.4	2645.0	2504.1	2539.4	2767.4	2856.9	3238.0
20°	4030.3	3995.9	3857.4	3608.1	3271.2	2887.0	2615.8	2562.6	2776.5	2870.0	3302.5
22.5°	4412.3	4384.0	4259.5	4017.2	3629.1	3167.7	2765.6	2602.7	2805.8	2908.3	3381.6
25°	4748.0	4749.8	4626.2	4392.2	3991.0	3465.3	2958.6	2710.2	2880.0	2986.6	3490.3
27.5°	5163.2	5139.1	5023.5	4791.2	4349.0	3765.8	3191.7	2858.1	2990.8	3098.3	3633.1
30°	5659.6	5642.6	5508.9	5245.7	4745.9	4088.4	3458.0	3029.8	3133.6	3245.0	3819.9
32.5°	6243.7	6235.8	6097.0	5758.2	5204.3	4468.6	3770.9	3257.2	3346.6	3462.3	4088.4
35°	6929.5	6930.4	6766.6	6359.4	5705.9	4910.8	4125.5	3549.7	3606.0	3726.5	4408.3
37.5°	7351.6	7402.8	7341.6	6926.4	6273.8	5405.5	4586.1	3937.7	3901.5	4023.3	4751.0
40°	7442.0	7504.4	7698.3	7487.4	6909.4	5950.3	4994.2	4310.6	4265.6	4414.1	5192.4
42.5°	7315.4	7401.9	7812.2	7960.7	7583.9	6621.7	5543.0	4864.6	4807.3	5007.3	5741.2
45°	7239.9	7304.5	7779.0	8207.3	8168.9	7380.9	6241.9	5560.1	5539.1	5801.4	6374.6
47.5°	7109.4	7167.8	7624.1	8264.5	8512.8	8076.4	7081.4	6410.8	6451.9	6795.9	7089.3
50°	7179.7	7203.7	7451.2	8118.7	8612.4	8586.2	8019.1	7395.8	7536.7	7965.9	7898.6
52.5°	7169.6	7232.0	7431.1	7879.4	8625.5	8900.9	8942.9	8494.6	8791.4	9283.8	8796.2
55°	5796.6	5911.0	7194.9	7819.2	8671.4	9209.3	9765.4	9652.7	10205.5	10779.6	9809.5
57.5°	5535.1	5607.6	6319.2	7945.8	8916.8	9798.5	10680.0	10927.5	11852.2	12518.8	11044.1
60°	5483.7	5573.2	6310.1	8100.7	9414.4	10758.5	12036.3	12470.7	13855.9	14585.8	12475.5
62.5°	5323.9	5420.4	6250.7	8080.3	10121.2	12086.6	13772.5	14111.3	15755.8	16465.6	13673.0
65°	4817.4	4907.8	5767.4	7755.9	10597.8	13504.0	15827.1	15615.2	17255.8	17789.4	14269.9
66°	4470.4	4559.0	5386.3	7373.9	10487.0	13906.1	16555.1	16080.6	17591.5	18009.7	14153.3
67.5°	3836.1	3905.5	4646.3	6518.3	9899.0	14018.7	17167.2	16430.3	17626.5	17774.5	13487.0
70°	2423.8	2443.9	3019.7	4499.6	7493.5	12157.8	16235.2	15561.9	16173.1	15772.9	11306.4
72.5°	1051.6	1044.6	1449.8	2288.9	4242.4	8157.9	13133.0	12840.5	12686.8	11774.0	7914.7
75°	585.0	593.2	753.0	1062.6	1724.0	4007.1	8591.1	8221.3	6941.3	5923.2	3588.9
77.5°	469.4	480.6	624.3	753.9	774.0	1397.4	4020.2	3271.2	1969.3	1580.3	997.1
80°	371.0	391.1	544.8	587.1	521.7	575.9	1298.8	1038.5	779.2	714.7	516.8
82.5°	293.4	307.7	467.5	444.4	364.9	388.1	622.1	606.3	506.8	461.4	298.6
85°	211.2	237.1	384.1	334.8	239.2	261.5	413.0	396.0	290.4	237.1	131.8
87.5°	86.4	112.6	271.5	222.2	133.6	121.8	206.1	193.9	137.6	100.4	65.4
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°	3031.9	3031.9	3031.9	3031.9	3031.9	3031.9	3031.9	3031.9	3031.9	3031.9	3031.9
2.5°	3028.9	3052.9	3084.3	3103.4	3113.5	3120.5	3131.4	3130.5	3133.6	3134.5	3138.4
5°	3049.0	3089.1	3134.5	3146.7	3146.7	3135.4	3124.4	3106.2	3099.2	3097.4	3099.2
7.5°	3101.3	3145.4	3184.7	3170.7	3140.6	3096.1	3038.9	2988.7	2961.6	2952.5	2950.6
10°	3167.7	3220.9	3237.1	3183.8	3095.2	2988.7	2875.2	2792.7	2745.5	2732.4	2728.4
12.5°	3248.0	3298.2	3276.3	3163.7	2999.6	2828.0	2670.9	2539.4	2440.8	2409.8	2407.6
15°	3336.6	3375.9	3298.2	3101.3	2856.9	2603.7	2324.2	2097.2	1974.5	1935.2	1932.2
17.5°	3419.1	3439.2	3285.2	2992.6	2646.9	2236.9	1865.8	1690.8	1648.8	1658.9	1660.7
20°	3489.4	3489.4	3241.0	2836.8	2316.3	1753.2	1518.8	1516.1	1546.2	1576.4	1582.5
22.5°	3566.7	3520.4	3163.7	2616.7	1847.6	1434.5	1400.4	1428.4	1462.5	1495.7	1500.9
25°	3662.3	3545.7	3056.0	2283.1	1452.5	1302.7	1315.8	1339.0	1356.0	1377.3	1380.4
27.5°	3768.8	3577.7	2914.4	1823.5	1260.7	1220.6	1230.6	1238.5	1236.4	1244.6	1246.4
30°	3896.3	3615.1	2720.2	1425.4	1181.3	1149.9	1132.0	1125.0	1125.0	1138.1	1142.9
32.5°	4067.4	3670.2	2441.7	1221.5	1142.9	1099.7	1041.6	1015.4	1025.4	1069.6	1079.6
35°	4255.5	3729.5	2064.9	1152.1	1135.0	1076.6	986.2	937.8	939.0	980.1	993.2
37.5°	4460.4	3805.0	1651.6	1139.0	1153.0	1077.8	957.0	890.6	863.5	863.5	868.7
40°	4722.7	3882.3	1337.1	1148.1	1191.3	1089.7	942.1	853.5	777.1	779.2	783.2
42.5°	5064.5	3948.7	1168.2	1167.0	1237.6	1105.8	940.8	804.2	737.8	783.2	824.3
45°	5444.7	3981.9	1093.6	1184.3	1274.7	1115.9	925.0	796.3	743.0	877.5	956.1
47.5°	5881.8	3962.7	1052.5	1190.1	1283.9	1115.9	906.7	815.4	778.0	1016.3	1107.9
50°	6361.5	3907.6	1012.4	1178.2	1280.8	1113.7	923.8	834.3	791.1	1040.4	1103.7
52.5°	6925.5	3861.3	970.1	1152.1	1259.5	1102.8	943.9	826.4	750.0	946.0	990.1
55°	7568.7	3874.4	922.9	1114.9	1226.3	1081.8	936.9	794.1	706.8	833.4	860.5
57.5°	8391.1	4030.3	866.6	1067.8	1181.3	1046.5	911.9	779.2	693.7	756.1	772.2
60°	9308.8	4301.5	796.3	1020.3	1125.0	990.1	892.7	786.2	699.8	750.0	757.9
62.5°	9982.4	4459.4	736.0	950.9	1048.6	927.7	868.7	795.0	715.9	771.0	769.2
65°	10165.3	4200.1	660.5	849.5	945.1	862.6	838.3	805.1	722.9	788.0	779.2
66°	9909.0	3920.7	627.3	802.3	892.7	830.3	823.3	804.2	719.9	790.2	774.9
67.5°	9286.9	3347.6	570.1	732.9	809.3	782.3	799.3	795.0	711.6	788.0	767.0
70°	7573.8	2284.1	487.6	610.3	673.6	688.5	753.0	763.1	685.5	753.0	706.8
72.5°	5291.9	1391.3	431.3	473.6	544.8	587.1	689.7	718.6	650.5	657.5	613.3
75°	2557.4	739.0	391.1	367.1	423.1	490.7	613.3	658.4	595.1	550.0	533.9
77.5°	797.2	451.4	331.8	295.6	331.8	396.0	512.6	577.1	529.9	460.5	454.4
80°	428.3	331.8	255.4	237.1	262.4	310.8	403.0	481.5	455.3	413.0	368.9
82.5°	282.5	215.2	189.0	183.8	200.0	237.1	299.5	399.0	399.0	354.0	257.5
85°	145.8	131.8	129.7	129.7	139.7	158.0	203.9	307.7	327.8	186.9	154.9
87.5°	72.4	75.5	70.3	73.4	78.5	77.3	97.4	154.9	185.1	113.5	94.4
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)