

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: P301098

Luminaire Tested: **GLNA-AF-04-LED-E1-T3R-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301098
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-04-LED-E1-T3R-7027
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21255.2 lumens
Efficiency: N/A
Efficacy: 94.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B2 - U0 - G4

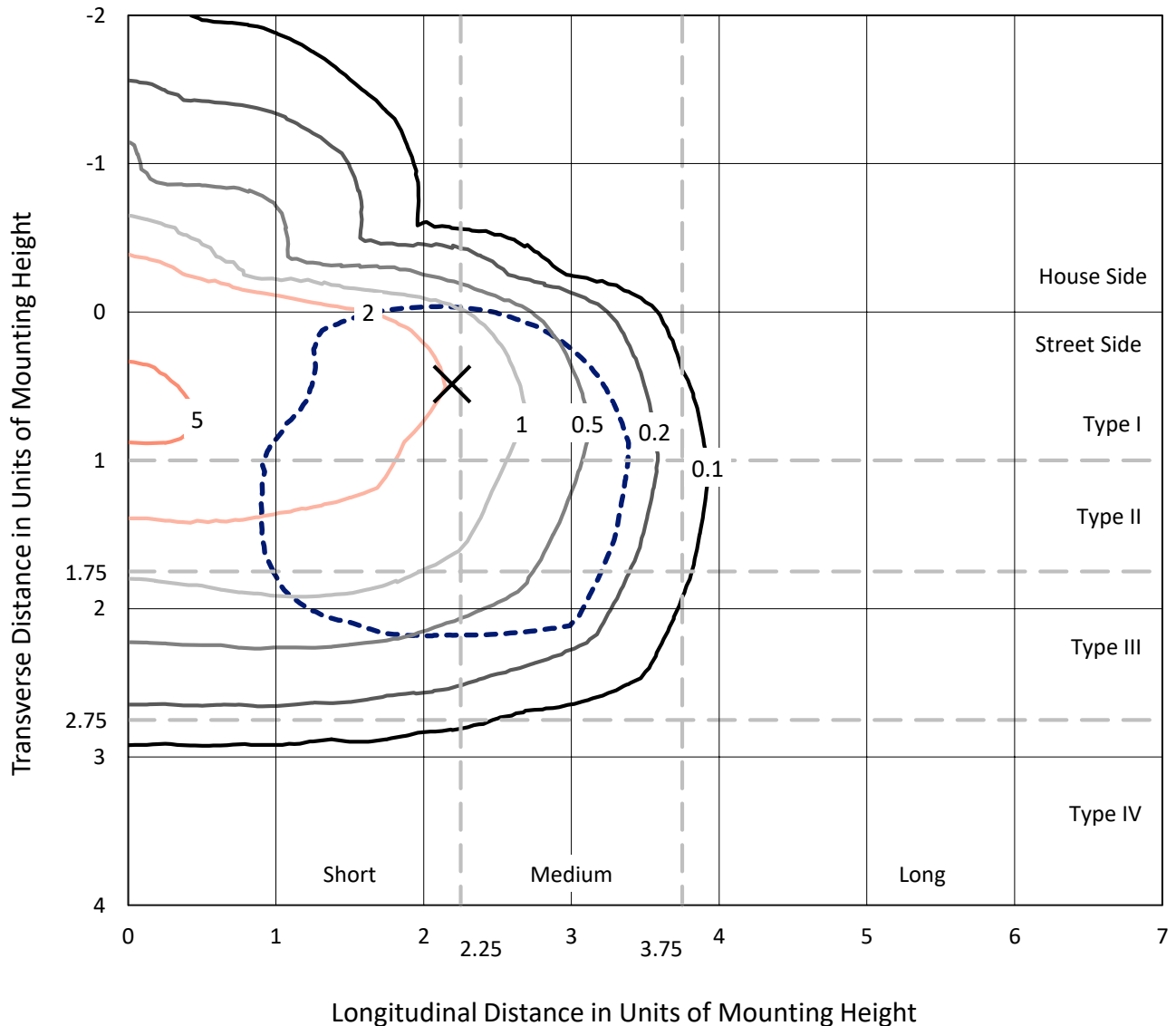
Input Watts (W): 225
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

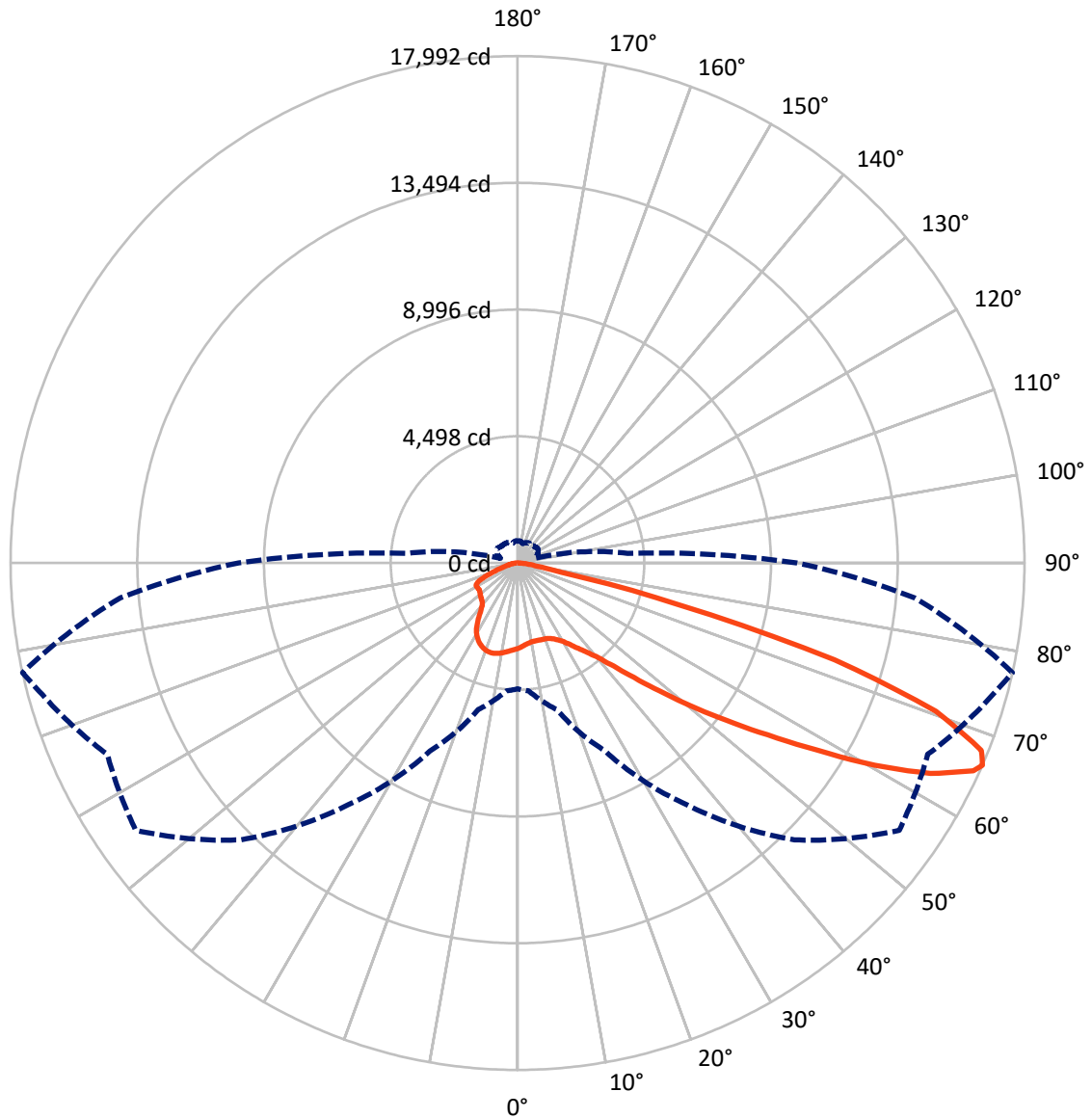
× Max cd
 - - - 1/2 Max cd



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	3631.3	0.0	3631.3
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	17623.9	0.0	17623.9
	% Fixture	82.9	0.0	82.9
Total	Lumens	21255.2	0.0	21255.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	270.6	1.3
10°-20°	763.5	3.6
20°-30°	1302.9	6.1
30°-40°	2085.8	9.8
40°-50°	3222.3	15.2
50°-60°	4570.4	21.5
60°-70°	6113.9	28.8
70°-80°	2655.2	12.5
80°-90°	270.7	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°	21255.2	100.0
0°-180°	21255.2	100.0



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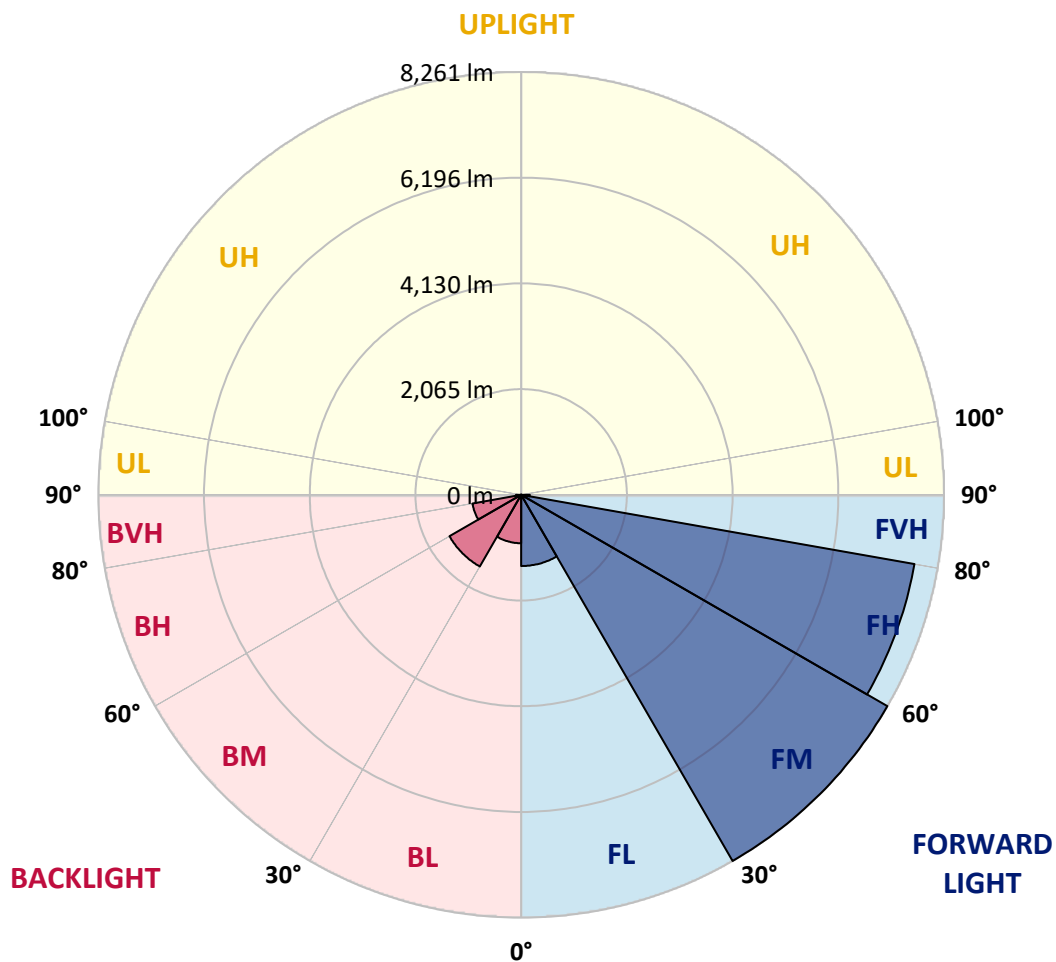
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1391.3	6.5			
FM	(30°-60°)	8260.9	38.9			
FH	(60°-80°)	7802.0	36.7			G4/12000
FVH	(80°-90°)	169.8	0.8			G2/225
BL	(0°-30°)	945.7	4.4	B2/1000		
BM	(30°-60°)	1617.6	7.6	B2/2500		
BH	(60°-80°)	967.1	4.5	B2/1000		G2/1000
BVH	(80°-90°)	100.9	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°	3028.9	3028.9	3028.9	3028.9	3028.9	3028.9	3028.9	3028.9	3028.9	3028.9	3028.9
2.5°	2679.6	2697.5	2712.7	2726.7	2754.7	2800.9	2854.1	2897.3	2959.6	2971.8	3004.9
5°	2433.6	2433.6	2445.4	2466.7	2504.7	2574.0	2646.4	2742.8	2878.4	2910.4	2998.8
7.5°	2314.1	2315.0	2322.0	2339.9	2373.0	2436.3	2515.7	2629.4	2813.0	2866.3	3016.8
10°	2358.1	2348.1	2332.9	2324.1	2329.0	2366.0	2441.5	2568.0	2772.9	2841.0	3057.2
12.5°	2605.1	2586.2	2533.9	2464.6	2398.3	2371.2	2415.3	2538.8	2755.9	2835.2	3110.4
15°	3008.9	3001.0	2903.4	2759.8	2599.3	2464.6	2434.5	2527.8	2757.7	2842.2	3173.7
17.5°	3515.2	3503.9	3375.6	3166.7	2904.6	2642.5	2501.7	2536.9	2764.7	2854.1	3234.8
20°	4026.3	3992.0	3853.6	3604.6	3267.9	2884.2	2613.3	2560.1	2773.8	2867.2	3299.3
22.5°	4407.9	4379.7	4255.3	4013.3	3625.5	3164.6	2762.9	2600.2	2803.0	2905.5	3378.3
25°	4743.3	4745.2	4621.7	4387.9	3987.1	3462.0	2955.7	2707.5	2877.2	2983.6	3486.9
27.5°	5158.1	5134.1	5018.5	4786.5	4344.7	3762.1	3188.6	2855.3	2987.9	3095.2	3629.5
30°	5654.1	5637.0	5503.5	5240.5	4741.2	4084.4	3454.7	3026.8	3130.5	3241.8	3816.2
32.5°	6237.6	6229.7	6091.0	5752.6	5199.2	4464.2	3767.2	3254.0	3343.4	3458.9	4084.4
35°	6922.7	6923.6	6760.0	6353.1	5700.3	4906.0	4121.5	3546.2	3602.4	3722.9	4404.0
37.5°	7344.4	7395.5	7334.4	6919.6	6267.7	5400.2	4581.6	3933.9	3897.7	4019.3	4746.4
40°	7434.8	7497.1	7690.8	7480.1	6902.6	5944.5	4989.3	4306.4	4261.4	4409.8	5187.3
42.5°	7308.3	7394.6	7804.5	7952.9	7576.5	6615.3	5537.6	4859.8	4802.6	5002.4	5735.6
45°	7232.9	7297.3	7771.4	8199.2	8160.9	7373.6	6235.8	5554.6	5533.7	5795.8	6368.4
47.5°	7102.4	7160.8	7616.6	8256.4	8504.5	8068.5	7074.4	6404.5	6445.6	6789.2	7082.3
50°	7172.6	7196.7	7443.9	8110.7	8603.9	8577.8	8011.3	7388.5	7529.3	7958.1	7890.9
52.5°	7162.6	7224.9	7423.8	7871.7	8617.0	8892.2	8934.2	8486.3	8782.7	9274.8	8787.6
55°	5790.9	5905.2	7187.8	7811.5	8662.9	9200.3	9755.8	9643.3	10195.5	10769.0	9799.9
57.5°	5529.7	5602.1	6313.0	7938.0	8908.0	9788.9	10669.6	10916.8	11840.6	12506.5	11033.2
60°	5478.3	5567.7	6303.9	8092.8	9405.2	10748.0	12024.5	12458.5	13842.3	14571.5	12463.3
62.5°	5318.7	5415.1	6244.6	8072.4	10111.3	12074.7	13759.0	14097.5	15740.4	16449.5	13659.6
65°	4812.7	4903.0	5761.7	7748.3	10587.5	13490.8	15811.6	15599.9	17238.9	17772.0	14255.9
66°	4466.0	4554.5	5381.0	7366.6	10476.8	13892.5	16538.9	16064.9	17574.3	17992.1	14139.4
67.5°	3832.3	3901.7	4641.8	6511.9	9889.3	14005.0	17150.4	16414.2	17609.3	17757.1	13473.8
70°	2421.4	2441.5	3016.8	4495.2	7486.2	12145.9	16219.3	15546.7	16157.3	15757.4	11295.4
72.5°	1050.6	1043.6	1448.3	2286.7	4238.3	8150.0	13120.1	12827.9	12674.4	11762.4	7907.0
75°	584.4	592.7	752.3	1061.5	1722.3	4003.2	8582.7	8213.2	6934.5	5917.4	3585.4
77.5°	468.9	480.1	623.7	753.2	773.3	1396.0	4016.3	3267.9	1967.4	1578.8	996.2
80°	370.7	390.7	544.3	586.6	521.2	575.3	1297.5	1037.5	778.4	714.0	516.3
82.5°	293.1	307.4	467.1	444.0	364.6	387.7	621.5	605.7	506.3	461.0	298.3
85°	211.0	236.9	383.7	334.5	239.0	261.2	412.6	395.6	290.1	236.9	131.7
87.5°	86.4	112.5	271.2	222.0	133.5	121.6	205.9	193.7	137.4	100.3	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°	3028.9	3028.9	3028.9	3028.9	3028.9	3028.9	3028.9	3028.9	3028.9	3028.9	3028.9
2.5°	3025.9	3049.9	3081.2	3100.4	3110.4	3117.4	3128.4	3127.5	3130.5	3131.4	3135.4
5°	3046.0	3086.1	3131.4	3143.6	3143.6	3132.3	3121.4	3103.1	3096.1	3094.3	3096.1
7.5°	3098.3	3142.4	3181.6	3167.6	3137.5	3093.1	3035.9	2985.8	2958.7	2949.6	2947.8
10°	3164.6	3217.8	3233.9	3180.7	3092.2	2985.8	2872.3	2789.9	2742.8	2729.7	2725.8
12.5°	3244.8	3295.0	3273.1	3160.6	2996.7	2825.2	2668.3	2536.9	2438.4	2407.4	2405.3
15°	3333.3	3372.6	3295.0	3098.3	2854.1	2601.1	2322.0	2095.1	1972.6	1933.3	1930.3
17.5°	3415.7	3435.8	3281.9	2989.7	2644.3	2234.7	1864.0	1689.2	1647.2	1657.2	1659.1
20°	3486.0	3486.0	3237.8	2834.0	2314.1	1751.5	1517.4	1514.6	1544.7	1574.8	1580.9
22.5°	3563.2	3517.0	3160.6	2614.2	1845.8	1433.1	1399.1	1427.0	1461.1	1494.3	1499.4
25°	3658.7	3542.2	3053.0	2280.9	1451.1	1301.5	1314.5	1337.6	1354.7	1376.0	1379.0
27.5°	3765.1	3574.2	2911.6	1821.7	1259.5	1219.4	1229.4	1237.3	1235.2	1243.4	1245.2
30°	3892.5	3611.6	2717.6	1424.0	1180.1	1148.8	1130.9	1123.9	1123.9	1137.0	1141.8
32.5°	4063.4	3666.6	2439.3	1220.3	1141.8	1098.6	1040.6	1014.4	1024.4	1068.5	1078.6
35°	4251.3	3725.9	2062.9	1150.9	1133.9	1075.5	985.2	936.9	938.1	979.1	992.2
37.5°	4456.0	3801.3	1649.9	1137.9	1151.9	1076.7	956.0	889.7	862.7	862.7	867.8
40°	4718.1	3878.5	1335.8	1147.0	1190.2	1088.6	941.1	852.6	776.3	778.4	782.4
42.5°	5059.6	3944.8	1167.1	1165.8	1236.4	1104.7	939.9	803.4	737.1	782.4	823.4
45°	5439.4	3978.0	1092.6	1183.2	1273.5	1114.8	924.1	795.5	742.3	876.7	955.1
47.5°	5876.0	3958.8	1051.5	1189.0	1282.6	1114.8	905.9	814.6	777.2	1015.3	1106.9
50°	6355.3	3903.8	1011.4	1177.1	1279.6	1112.6	922.9	833.5	790.3	1039.3	1102.6
52.5°	6918.7	3857.6	969.1	1150.9	1258.3	1101.7	943.0	825.6	749.3	945.1	989.2
55°	7561.3	3870.6	922.0	1113.8	1225.1	1080.7	936.0	793.3	706.1	832.6	859.6
57.5°	8382.9	4026.3	865.7	1066.7	1180.1	1045.4	911.0	778.4	693.0	755.3	771.5
60°	9299.7	4297.3	795.5	1019.3	1123.9	989.2	891.9	785.4	699.1	749.3	757.2
62.5°	9972.6	4455.1	735.3	949.9	1047.6	926.8	867.8	794.3	715.2	770.2	768.4
65°	10155.4	4196.0	659.9	848.7	944.2	861.8	837.4	804.3	722.2	787.3	778.4
66°	9899.3	3916.9	626.7	801.6	891.9	829.5	822.5	803.4	719.1	789.4	774.2
67.5°	9277.8	3344.3	569.5	732.2	808.5	781.5	798.5	794.3	710.9	787.3	766.3
70°	7566.4	2281.8	487.1	609.7	672.9	687.8	752.3	762.3	684.8	752.3	706.1
72.5°	5286.7	1390.0	430.9	473.1	544.3	586.6	689.0	717.9	649.8	656.8	612.7
75°	2554.9	738.3	390.7	366.7	422.7	490.2	612.7	657.7	594.5	549.5	533.4
77.5°	796.4	451.0	331.4	295.3	331.4	395.6	512.1	576.5	529.4	460.1	454.0
80°	427.8	331.4	255.1	236.9	262.1	310.5	402.6	481.1	454.9	412.6	368.5
82.5°	282.2	215.0	188.8	183.7	199.8	236.9	299.2	398.6	398.6	353.6	257.3
85°	145.7	131.7	129.5	129.5	139.6	157.8	203.7	307.4	327.5	186.7	154.8
87.5°	72.4	75.4	70.2	73.3	78.5	77.2	97.3	154.8	184.9	113.4	94.3
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)