

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: P301099

Luminaire Tested: **GLNA-AF-04-LED-E1-T3R-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301099
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-7030
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 3000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23663.5 lumens
Efficiency: N/A
Efficacy: 105.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B3 - 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

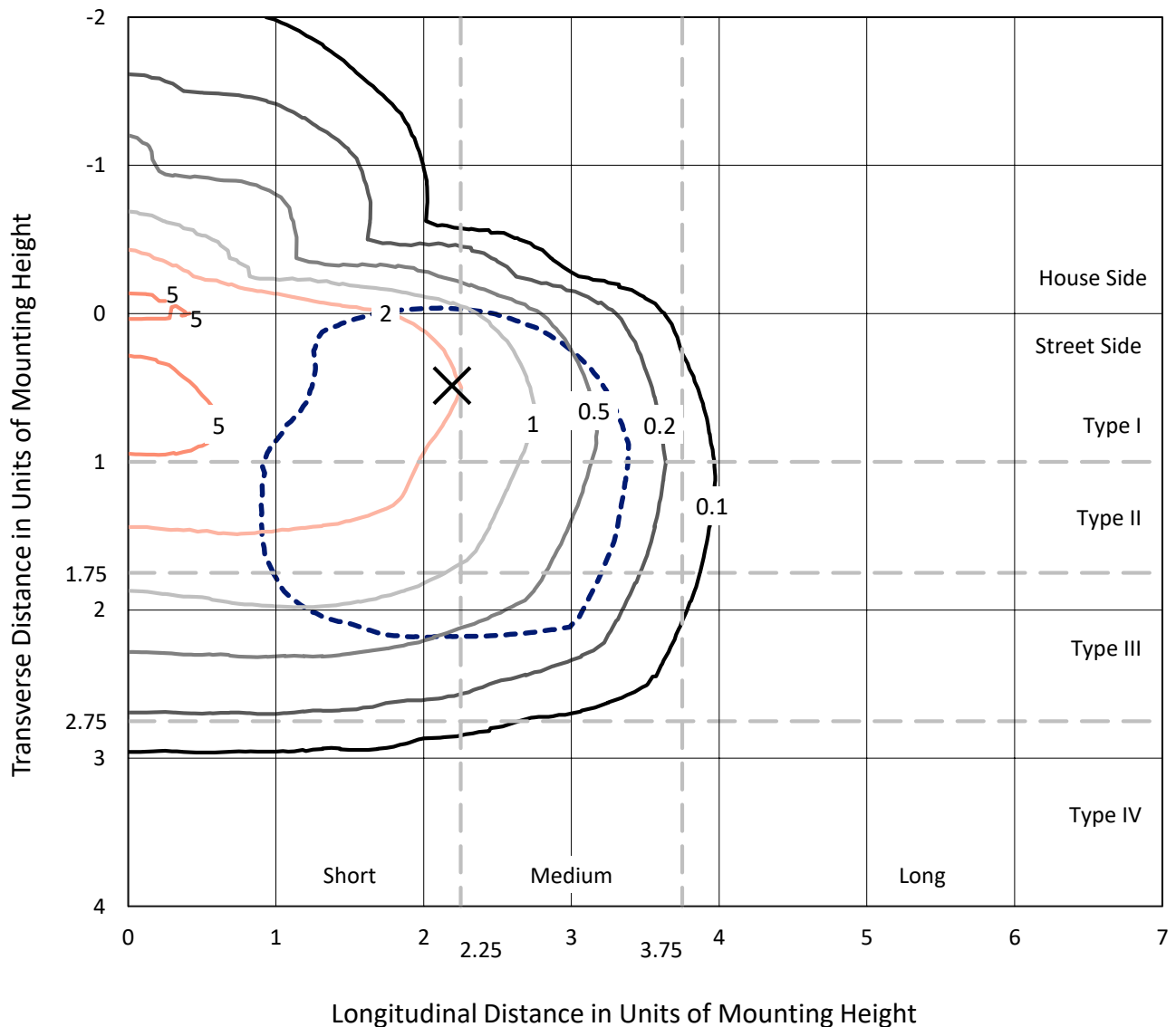


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

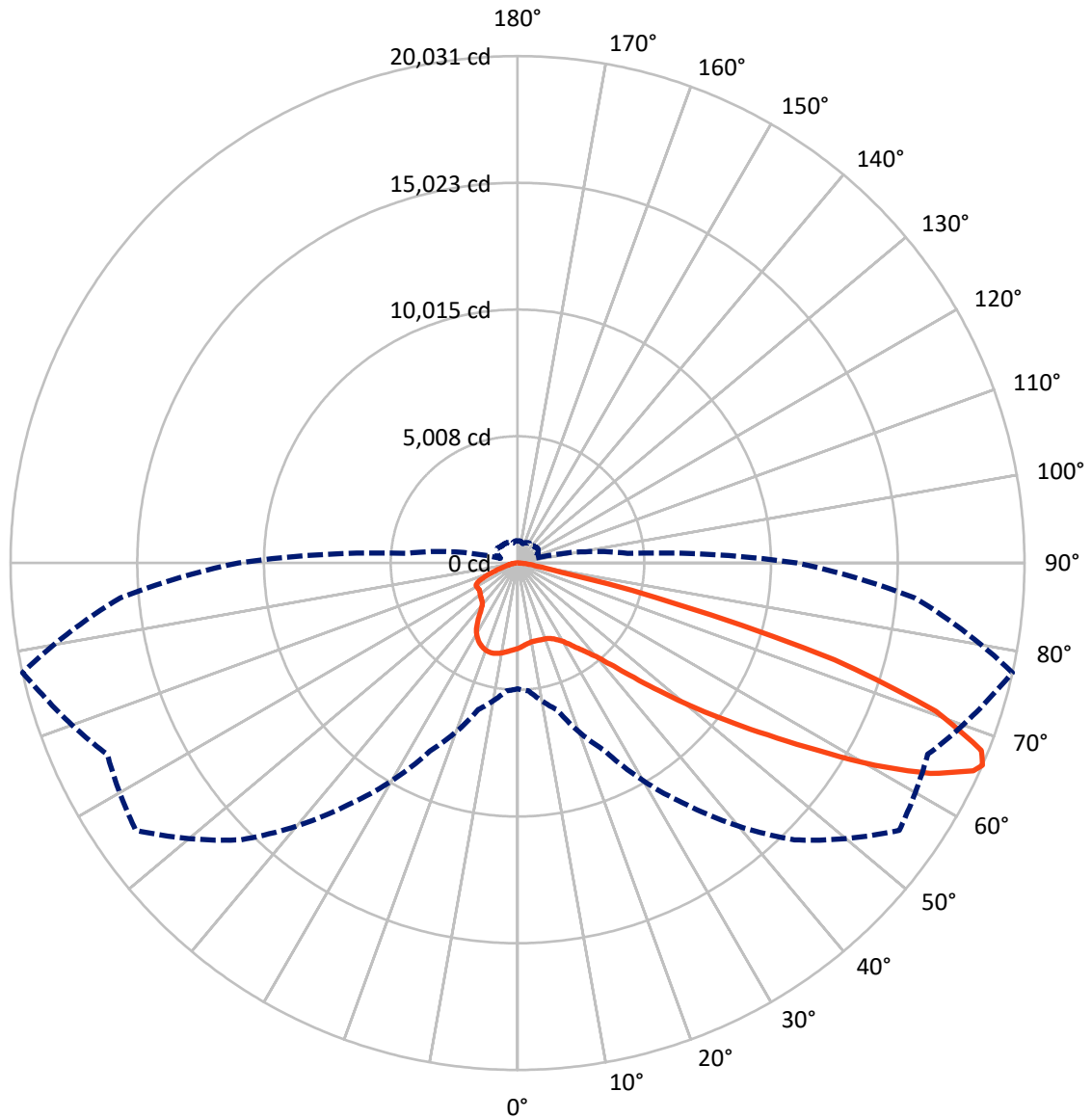


Based on 25 foot mounting height. Maximum calculated value = 6.6 fc
 Type III - Short - Full Cutoff

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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	4042.8	0.0	4042.8
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	19620.7	0.0	19620.7
	% Fixture	82.9	0.0	82.9
Total	Lumens	23663.5	0.0	23663.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	301.3	1.3
10°-20°	850.0	3.6
20°-30°	1450.6	6.1
30°-40°	2322.1	9.8
40°-50°	3587.4	15.2
50°-60°	5088.2	21.5
60°-70°	6806.6	28.8
70°-80°	2956.0	12.5
80°-90°	301.4	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°	23663.5	100.0
0°-180°	23663.5	100.0



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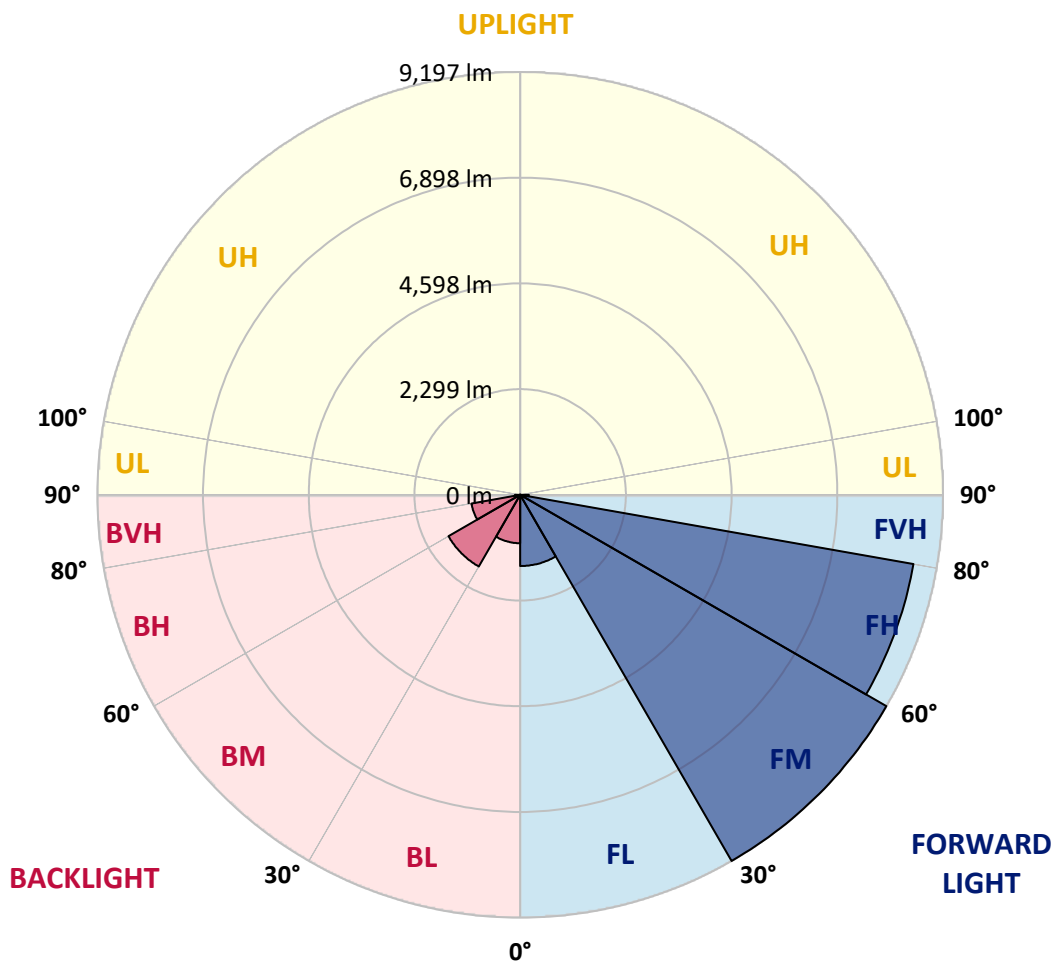
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1548.9	6.5			
FM	(30°-60°)	9196.9	38.9			
FH	(60°-80°)	8685.9	36.7			G4/12000
FVH	(80°-90°)	189.0	0.8			G2/225
BL	(0°-30°)	1052.9	4.4	B3/2500		
BM	(30°-60°)	1800.8	7.6	B2/2500		
BH	(60°-80°)	1076.7	4.5	B3/2500		G3/2500
BVH	(80°-90°)	112.4	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-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°	3372.1	3372.1	3372.1	3372.1	3372.1	3372.1	3372.1	3372.1	3372.1	3372.1	3372.1
2.5°	2983.2	3003.1	3020.1	3035.6	3066.8	3118.2	3177.5	3225.5	3294.9	3308.5	3345.4
5°	2709.3	2709.3	2722.5	2746.2	2788.5	2865.7	2946.3	3053.6	3204.6	3240.1	3338.6
7.5°	2576.2	2577.3	2585.0	2605.0	2641.9	2712.3	2800.7	2927.3	3131.8	3191.0	3358.6
10°	2625.3	2614.2	2597.2	2587.4	2592.8	2634.1	2718.1	2858.9	3087.1	3162.9	3403.6
12.5°	2900.2	2879.2	2821.0	2743.8	2670.0	2639.9	2689.0	2826.4	3068.1	3156.5	3462.9
15°	3349.8	3341.0	3232.3	3072.5	2893.8	2743.8	2710.3	2814.2	3070.2	3164.3	3533.3
17.5°	3913.4	3900.9	3758.1	3525.5	3233.7	2941.9	2785.1	2824.4	3077.9	3177.5	3601.3
20°	4482.5	4444.3	4290.2	4013.0	3638.2	3211.0	2909.4	2850.1	3088.1	3192.0	3673.1
22.5°	4907.4	4875.9	4737.4	4468.0	4036.3	3523.1	3075.9	2894.8	3120.6	3234.7	3761.1
25°	5280.8	5282.8	5145.4	4885.0	4438.8	3854.2	3290.5	3014.3	3203.2	3321.7	3882.0
27.5°	5742.5	5715.8	5587.1	5328.8	4837.0	4188.3	3549.9	3178.8	3326.4	3445.9	4040.7
30°	6294.7	6275.7	6127.1	5834.3	5278.4	4547.2	3846.1	3369.8	3485.2	3609.1	4248.6
32.5°	6944.3	6935.5	6781.2	6404.4	5788.2	4970.0	4194.1	3622.6	3722.2	3850.8	4547.2
35°	7707.0	7708.1	7525.9	7073.0	6346.1	5461.9	4588.5	3948.0	4010.6	4144.7	4903.0
37.5°	8176.6	8233.5	8165.4	7703.7	6977.8	6012.0	5100.7	4379.6	4339.3	4474.7	5284.2
40°	8277.1	8346.5	8562.2	8327.6	7684.7	6618.0	5554.6	4794.3	4744.2	4909.4	5775.0
42.5°	8136.3	8232.4	8688.8	8854.0	8434.9	7364.8	6165.0	5410.4	5346.8	5569.2	6385.4
45°	8052.3	8124.1	8651.9	9128.2	9085.5	8209.1	6942.3	6184.0	6160.6	6452.4	7089.9
47.5°	7907.1	7972.1	8479.6	9191.8	9468.1	8982.6	7876.0	7130.2	7175.9	7558.4	7884.8
50°	7985.3	8012.1	8287.3	9029.7	9578.8	9549.7	8919.0	8225.7	8382.4	8859.7	8784.9
52.5°	7974.1	8043.5	8264.9	8763.6	9593.3	9899.7	9946.4	9447.8	9777.8	10325.6	9783.3
55°	6447.0	6574.3	8002.2	8696.6	9644.5	10242.7	10861.2	10735.9	11350.7	11989.1	10910.2
57.5°	6156.2	6236.8	7028.3	8837.4	9917.3	10898.1	11878.4	12153.7	13182.1	13923.5	12283.3
60°	6099.0	6198.5	7018.1	9009.7	10470.8	11965.8	13386.9	13870.0	15410.7	16222.5	13875.4
62.5°	5921.3	6028.6	6952.1	8987.0	11256.9	13442.8	15317.9	15694.7	17523.8	18313.3	15207.2
65°	5358.0	5458.5	6414.5	8626.2	11787.0	15019.3	17603.0	17367.4	19192.1	19785.6	15871.1
66°	4972.0	5070.5	5990.7	8201.3	11663.8	15466.6	18412.8	17885.0	19565.5	20030.7	15741.4
67.5°	4266.5	4343.7	5167.7	7249.7	11009.8	15591.8	19093.6	18274.0	19604.4	19769.0	15000.4
70°	2695.7	2718.1	3358.6	5004.5	8334.3	13522.0	18057.0	17308.2	17987.9	17542.8	12575.1
72.5°	1169.6	1161.8	1612.4	2545.8	4718.5	9073.4	14606.7	14281.3	14110.4	13095.1	8802.9
75°	650.7	659.8	837.5	1181.8	1917.5	4456.8	9555.1	9143.8	7720.2	6587.8	3991.6
77.5°	522.0	534.5	694.3	838.5	860.9	1554.2	4471.3	3638.2	2190.3	1757.7	1109.0
80°	412.7	435.0	606.0	653.0	580.2	640.5	1444.5	1155.1	866.6	794.9	574.8
82.5°	326.3	342.3	520.0	494.3	405.9	431.6	692.0	674.4	563.7	513.2	332.1
85°	234.9	263.7	427.2	372.4	266.1	290.8	459.4	440.4	323.0	263.7	146.6
87.5°	96.1	125.3	302.0	247.1	148.6	135.4	229.2	215.6	153.0	111.7	72.8
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°	3372.1	3372.1	3372.1	3372.1	3372.1	3372.1	3372.1	3372.1	3372.1	3372.1	3372.1
2.5°	3368.7	3395.5	3430.4	3451.7	3462.9	3470.6	3482.8	3481.8	3485.2	3486.2	3490.6
5°	3391.1	3435.8	3486.2	3499.8	3499.8	3487.2	3475.0	3454.7	3446.9	3444.9	3446.9
7.5°	3449.3	3498.4	3542.1	3526.5	3493.0	3443.6	3379.9	3324.1	3293.9	3283.8	3281.7
10°	3523.1	3582.4	3600.3	3541.1	3442.5	3324.1	3197.8	3106.0	3053.6	3039.0	3034.6
12.5°	3612.5	3668.3	3644.0	3518.7	3336.2	3145.3	2970.6	2824.4	2714.7	2680.2	2677.8
15°	3711.0	3754.7	3668.3	3449.3	3177.5	2895.8	2585.0	2332.5	2196.1	2152.4	2149.0
17.5°	3802.7	3825.1	3653.8	3328.5	2943.9	2487.9	2075.2	1880.6	1833.8	1845.0	1847.0
20°	3880.9	3880.9	3604.7	3155.1	2576.2	1949.9	1689.3	1686.2	1719.7	1753.3	1760.0
22.5°	3966.9	3915.5	3518.7	2910.4	2054.9	1595.5	1557.6	1588.7	1626.7	1663.6	1669.3
25°	4073.2	3943.6	3398.9	2539.3	1615.5	1448.9	1463.5	1489.2	1508.2	1531.9	1535.2
27.5°	4191.7	3979.1	3241.5	2028.2	1402.2	1357.5	1368.7	1377.5	1375.1	1384.3	1386.3
30°	4333.6	4020.8	3025.5	1585.3	1313.8	1279.0	1259.0	1251.2	1251.2	1265.8	1271.2
32.5°	4523.8	4082.0	2715.7	1358.5	1271.2	1223.1	1158.5	1129.3	1140.5	1189.6	1200.8
35°	4733.0	4148.0	2296.6	1281.3	1262.4	1197.4	1096.8	1043.0	1044.4	1090.1	1104.6
37.5°	4960.9	4232.0	1836.9	1266.8	1282.4	1198.7	1064.3	990.5	960.4	960.4	966.2
40°	5252.7	4318.0	1487.2	1276.9	1325.0	1211.9	1047.8	949.2	864.3	866.6	871.0
42.5°	5632.8	4391.8	1299.3	1297.9	1376.5	1229.9	1046.4	894.4	820.6	871.0	916.7
45°	6055.7	4428.7	1216.3	1317.2	1417.8	1241.1	1028.8	885.6	826.4	976.0	1063.3
47.5°	6541.8	4407.4	1170.6	1323.7	1427.9	1241.1	1008.5	906.9	865.3	1130.4	1232.3
50°	7075.3	4346.1	1126.0	1310.5	1424.5	1238.7	1027.4	927.9	879.8	1157.1	1227.5
52.5°	7702.6	4294.6	1078.9	1281.3	1400.8	1226.5	1049.8	919.1	834.1	1052.2	1101.2
55°	8418.0	4309.2	1026.4	1240.0	1363.9	1203.1	1042.0	883.2	786.1	926.9	957.0
57.5°	9332.7	4482.5	963.8	1187.6	1313.8	1163.9	1014.2	866.6	771.5	840.9	858.9
60°	10353.4	4784.1	885.6	1134.8	1251.2	1101.2	992.9	874.4	778.3	834.1	842.9
62.5°	11102.5	4959.8	818.6	1057.6	1166.2	1031.8	966.2	884.2	796.2	857.5	855.5
65°	11306.0	4671.4	734.6	944.8	1051.1	959.4	932.3	895.4	804.0	876.5	866.6
66°	11020.9	4360.6	697.7	892.4	992.9	923.5	915.7	894.4	800.6	878.8	861.9
67.5°	10329.0	3723.2	634.1	815.2	900.2	870.0	889.0	884.2	791.5	876.5	853.1
70°	8423.7	2540.4	542.3	678.8	749.2	765.8	837.5	848.7	762.4	837.5	786.1
72.5°	5885.7	1547.4	479.7	526.8	606.0	653.0	767.1	799.3	723.4	731.2	682.1
75°	2844.4	822.0	435.0	408.3	470.6	545.7	682.1	732.2	661.8	611.7	593.8
77.5°	886.6	502.0	369.0	328.7	369.0	440.4	570.1	641.9	589.4	512.2	505.4
80°	476.3	369.0	284.0	263.7	291.8	345.6	448.2	535.6	506.4	459.4	410.3
82.5°	314.2	239.3	210.2	204.5	222.4	263.7	333.1	443.8	443.8	393.7	286.4
85°	162.2	146.6	144.2	144.2	155.4	175.7	226.8	342.3	364.6	207.9	172.3
87.5°	80.6	84.0	78.2	81.6	87.3	86.0	108.3	172.3	205.8	126.3	104.9
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)