

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: P453739

Luminaire Tested: **GALN-SA4D-740-U-SL4**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453739
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-18)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4D-740-U-SL4
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 4000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29955 lumens
Efficiency: N/A
Efficacy: 122.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

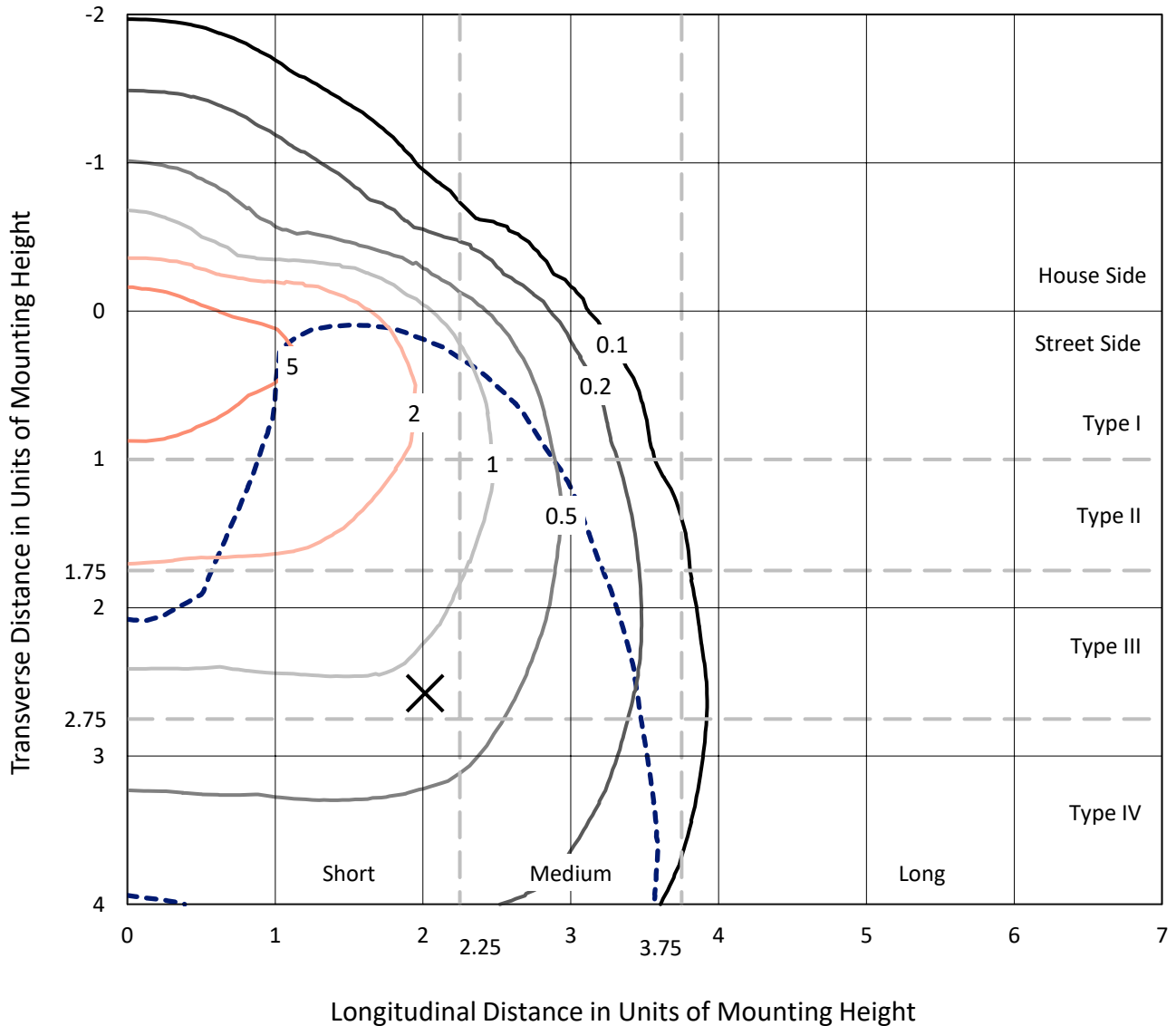
Input Watts (W): 245
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

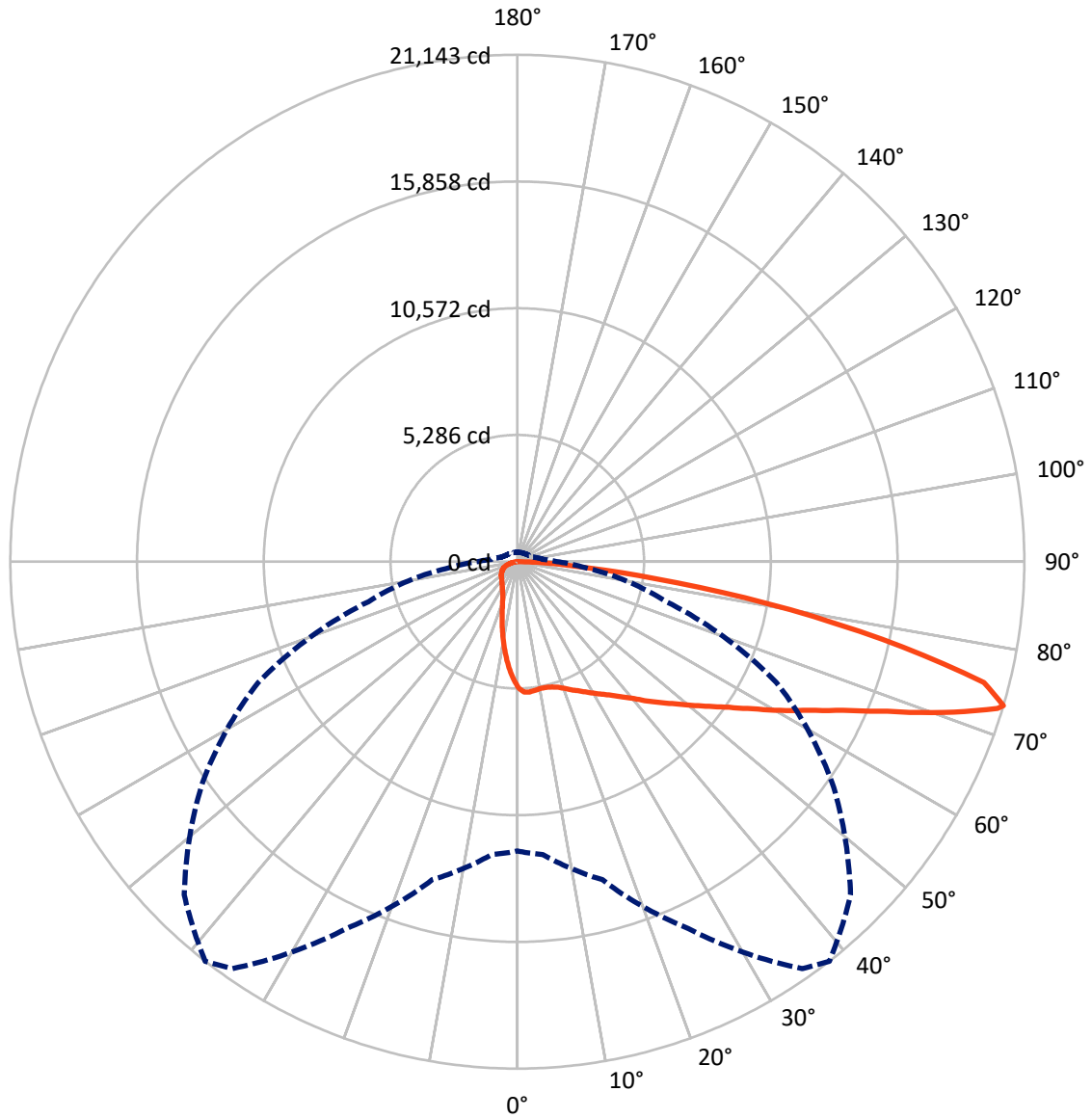
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.6 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 38-Deg Lateral - - - Horizontal Cone Through 73-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4026.8	0.0	4026.8
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	25928.2	0.0	25928.2
	% Fixture	86.6	0.0	86.6
Total	Lumens	29955.0	0.0	29955.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	459.4	1.5
10°-20°	1178.0	3.9
20°-30°	1834.3	6.1
30°-40°	2690.5	9.0
40°-50°	3991.1	13.3
50°-60°	5654.6	18.9
60°-70°	7173.0	23.9
70°-80°	5971.0	19.9
80°-90°	1003.2	3.3
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°	29955.0	100.0
0°-180°	29955.0	100.0



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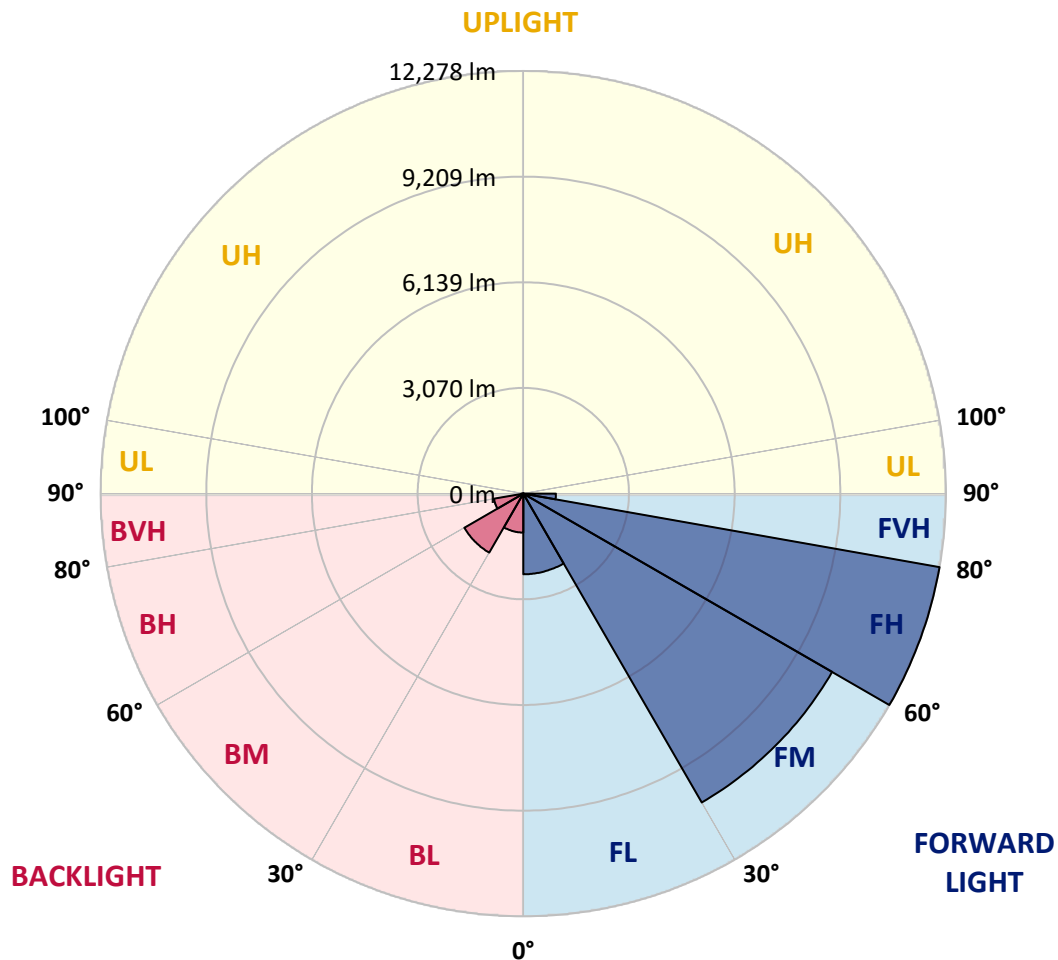
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2341.7	7.8			
FM (30°-60°)	10359.3	34.6			
FH (60°-80°)	12278.4	41.0			G5
FVH (80°-90°)	948.8	3.2			G5
BL (0°-30°)	1130.0	3.8	B3/2500		
BM (30°-60°)	1976.9	6.6	B2/2500		
BH (60°-80°)	865.5	2.9	B2/1000		G2/1000
BVH (80°-90°)	54.4	0.2			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	5262.6	5262.6	5262.6	5262.6	5262.6	5262.6	5262.6	5262.6	5262.6	5262.6	5262.6
2.5°	5474.0	5501.1	5487.6	5469.0	5457.1	5445.3	5428.4	5379.3	5340.4	5298.1	5232.1
5°	5514.6	5531.6	5519.7	5496.0	5469.0	5457.1	5425.0	5360.7	5298.1	5227.1	5128.9
7.5°	5491.0	5497.7	5484.2	5455.4	5431.7	5409.8	5372.5	5301.5	5225.4	5139.1	5010.5
10°	5406.4	5431.7	5431.7	5408.1	5384.4	5372.5	5335.3	5267.7	5198.3	5100.2	4947.9
12.5°	5337.0	5364.1	5386.1	5379.3	5377.6	5377.6	5348.9	5298.1	5216.9	5123.9	4942.9
15°	5289.7	5321.8	5369.2	5396.2	5413.1	5418.2	5406.4	5362.4	5279.5	5171.2	4963.2
17.5°	5279.5	5318.4	5404.7	5463.9	5507.9	5506.2	5502.8	5441.9	5350.5	5238.9	4988.5
20°	5325.2	5375.9	5496.0	5589.1	5653.3	5641.5	5622.9	5543.4	5436.8	5311.6	5012.2
22.5°	5462.2	5514.6	5646.6	5748.1	5810.7	5810.7	5754.8	5650.0	5536.6	5396.2	5044.4
25°	5658.4	5715.9	5856.3	5959.5	5988.3	5966.3	5910.5	5783.6	5653.3	5518.0	5112.0
27.5°	5898.6	5968.0	6098.2	6184.5	6176.1	6159.1	6101.6	5939.2	5809.0	5685.5	5227.1
30°	6198.0	6248.8	6384.1	6404.4	6374.0	6370.6	6289.4	6127.0	6005.2	5910.5	5391.1
32.5°	6480.5	6526.2	6634.5	6642.9	6588.8	6595.6	6519.4	6370.6	6301.2	6267.4	5666.9
35°	6780.0	6803.6	6896.7	6886.5	6851.0	6845.9	6815.5	6673.4	6695.4	6756.3	6057.6
37.5°	7030.3	7077.7	7130.1	7138.6	7136.9	7153.8	7174.1	7106.4	7233.3	7424.5	6570.2
40°	7260.4	7301.0	7378.8	7405.9	7471.8	7505.7	7575.0	7576.7	7869.4	8184.0	7201.2
42.5°	7416.0	7485.4	7630.8	7679.9	7840.6	7942.1	8045.3	8155.2	8579.8	8984.1	7945.5
45°	7551.3	7642.7	7884.6	8036.8	8255.0	8378.5	8596.7	8826.8	9437.5	9966.9	8701.6
47.5°	7756.0	7837.2	8114.6	8383.6	8713.5	8855.6	9182.0	9525.4	10323.9	10904.1	9425.6
50°	8040.2	8089.3	8371.8	8809.9	9231.1	9413.8	9845.1	10340.8	11271.2	11829.4	10061.7
52.5°	8403.9	8424.2	8649.2	9232.8	9787.6	10014.3	10586.1	11164.6	12100.1	12632.9	10565.8
55°	8833.6	8799.7	8975.7	9681.1	10423.7	10719.7	11333.8	11998.6	13032.1	13282.5	10932.8
57.5°	9258.2	9205.7	9346.1	10225.8	11208.6	11565.5	12281.1	12857.9	13864.4	13889.8	11190.0
60°	9708.1	9669.2	9836.7	10865.2	12171.1	12594.0	13255.4	13749.4	14669.6	14312.7	11230.6
62.5°	10169.9	10107.3	10345.9	11584.1	13255.4	13639.4	14280.5	14696.7	15459.6	14470.0	10839.8
65°	10618.2	10589.5	10958.2	12438.4	14490.3	14926.7	15549.2	15831.7	16092.2	14233.2	9870.5
67.5°	11095.2	11152.8	11741.4	13578.5	16100.7	16648.8	17320.4	17054.8	16273.2	13111.6	8312.6
70°	11822.6	11859.8	12769.9	15072.2	18176.3	18837.7	19162.5	17489.5	15400.4	10981.9	6248.8
72.5°	12135.6	12299.7	13688.5	16640.3	20534.4	20938.7	19781.6	16520.2	12829.1	7460.0	3283.4
73°	12066.2	12262.5	13730.8	16878.8	20718.8	21143.4	19649.7	16021.2	11925.8	6424.7	2814.8
75°	11201.8	11443.7	13181.0	16679.2	20360.2	20106.4	17528.4	13654.6	8058.8	2921.4	1282.2
77.5°	8838.6	8908.0	10444.0	13468.6	16033.0	15562.8	13118.4	8534.2	3291.9	1086.0	727.4
80°	4433.7	4689.1	5886.8	7715.4	10721.4	10567.5	8280.4	4036.2	1371.9	637.7	482.1
82.5°	2133.1	2314.1	2867.3	3762.1	5924.0	5783.6	4100.5	2205.9	871.2	372.2	284.2
85°	1373.6	1508.9	1825.2	1794.8	2435.9	2326.0	1842.2	1669.6	515.9	194.5	197.9
87.5°	906.7	993.0	1190.9	952.4	886.4	801.8	813.7	940.5	101.5	74.4	27.1
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°	5262.6	5262.6	5262.6	5262.6	5262.6	5262.6	5262.6	5262.6	5262.6	5262.6	5262.6
2.5°	5205.1	5183.1	5110.3	5039.3	4971.6	4907.3	4865.1	4809.2	4772.0	4782.2	4797.4
5°	5074.8	5025.8	4897.2	4772.0	4653.6	4513.2	4399.9	4308.5	4239.2	4213.8	4208.7
7.5°	4937.8	4854.9	4670.5	4455.7	4254.4	4080.2	3878.9	3779.0	3662.3	3621.7	3608.2
10°	4854.9	4743.3	4484.4	4185.0	3882.2	3593.0	3374.8	3197.1	3036.4	3006.0	2990.8
12.5°	4831.2	4684.1	4335.6	3949.9	3547.3	3192.1	2869.0	2635.5	2479.9	2444.4	2391.9
15°	4817.7	4635.0	4196.9	3713.1	3202.2	2769.2	2429.1	2156.8	2014.7	1920.0	1921.7
17.5°	4805.9	4579.2	4041.2	3454.3	2904.5	2405.5	2029.9	1784.6	1654.4	1603.6	1598.6
20°	4788.9	4513.2	3861.9	3181.9	2564.5	2073.9	1733.9	1551.2	1463.2	1420.9	1419.3
22.5°	4782.2	4448.9	3686.0	2904.5	2263.4	1818.5	1537.7	1409.1	1353.3	1324.5	1324.5
25°	4799.1	4403.3	3501.6	2640.6	1996.1	1600.3	1402.3	1314.4	1282.2	1267.0	1261.9
27.5°	4851.5	4383.0	3318.9	2376.7	1750.8	1451.4	1311.0	1250.1	1226.4	1214.6	1216.3
30°	4951.3	4381.3	3139.6	2116.2	1568.1	1338.1	1238.3	1196.0	1177.4	1170.6	1168.9
32.5°	5112.0	4418.5	2963.7	1901.4	1414.2	1243.3	1170.6	1140.1	1131.7	1126.6	1124.9
35°	5384.4	4523.4	2789.5	1705.1	1295.8	1158.8	1106.3	1091.1	1079.2	1084.3	1086.0
37.5°	5751.5	4704.4	2623.7	1551.2	1206.1	1096.2	1052.2	1038.6	1031.9	1037.0	1042.0
40°	6243.7	4964.9	2485.0	1427.7	1141.8	1043.7	1004.8	993.0	986.2	994.7	996.4
42.5°	6786.7	5266.0	2369.9	1331.3	1089.4	999.7	962.5	949.0	943.9	949.0	950.7
45°	7345.0	5616.1	2310.7	1261.9	1045.4	967.6	928.7	913.5	901.6	898.2	903.3
47.5°	7894.7	5920.6	2309.0	1219.6	1009.9	938.8	896.6	879.6	864.4	856.0	854.3
50°	8343.0	6162.5	2349.6	1201.0	979.4	906.7	864.4	847.5	827.2	810.3	813.7
52.5°	8681.3	6319.8	2368.2	1192.6	962.5	872.9	830.6	815.4	791.7	769.7	769.7
55°	8899.5	6357.1	2322.6	1184.1	949.0	837.3	791.7	778.1	754.5	732.5	732.5
57.5°	8974.0	6242.0	2158.5	1163.8	935.5	806.9	752.8	740.9	722.3	700.3	696.9
60°	8801.4	5853.0	1870.9	1102.9	908.4	774.8	710.5	705.4	698.6	680.0	678.3
62.5°	8136.6	5027.5	1558.0	1023.4	862.7	740.9	671.6	680.0	685.1	675.0	673.3
65°	7030.3	4081.8	1331.3	913.5	801.8	693.6	629.3	651.3	664.8	664.8	661.4
67.5°	5702.4	3134.5	1121.5	818.7	725.7	629.3	581.9	598.8	609.0	605.6	614.1
70°	4053.1	2123.0	913.5	710.5	629.3	556.5	521.0	521.0	514.2	510.9	510.9
72.5°	1965.6	1212.9	740.9	593.8	536.2	475.3	446.6	434.7	421.2	419.5	411.1
73°	1642.5	1087.7	707.1	571.8	514.2	463.5	431.4	412.8	404.3	397.5	395.8
75°	999.7	825.5	590.4	482.1	438.1	399.2	370.5	353.5	345.1	340.0	338.3
77.5°	658.0	615.7	458.4	368.8	334.9	311.3	299.4	282.5	277.4	270.7	270.7
80°	490.6	470.3	328.2	260.5	240.2	219.9	216.5	213.1	199.6	191.2	187.8
82.5°	316.3	334.9	223.3	174.2	152.2	135.3	137.0	142.1	128.6	116.7	113.3
85°	225.0	241.9	135.3	79.5	64.3	55.8	62.6	55.8	57.5	45.7	37.2
87.5°	37.2	64.3	23.7	10.1	5.1	3.4	0.0	0.0	0.0	0.0	0.0
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)