

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: P454754

Luminaire Tested: **GALN-SA5D-827-U-SL4**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P454754
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-SA5D-827-U-SL4
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(5) 80 CRI, 2700K, 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: 27876 lumens
Efficiency: N/A
Efficacy: 90.2 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G5

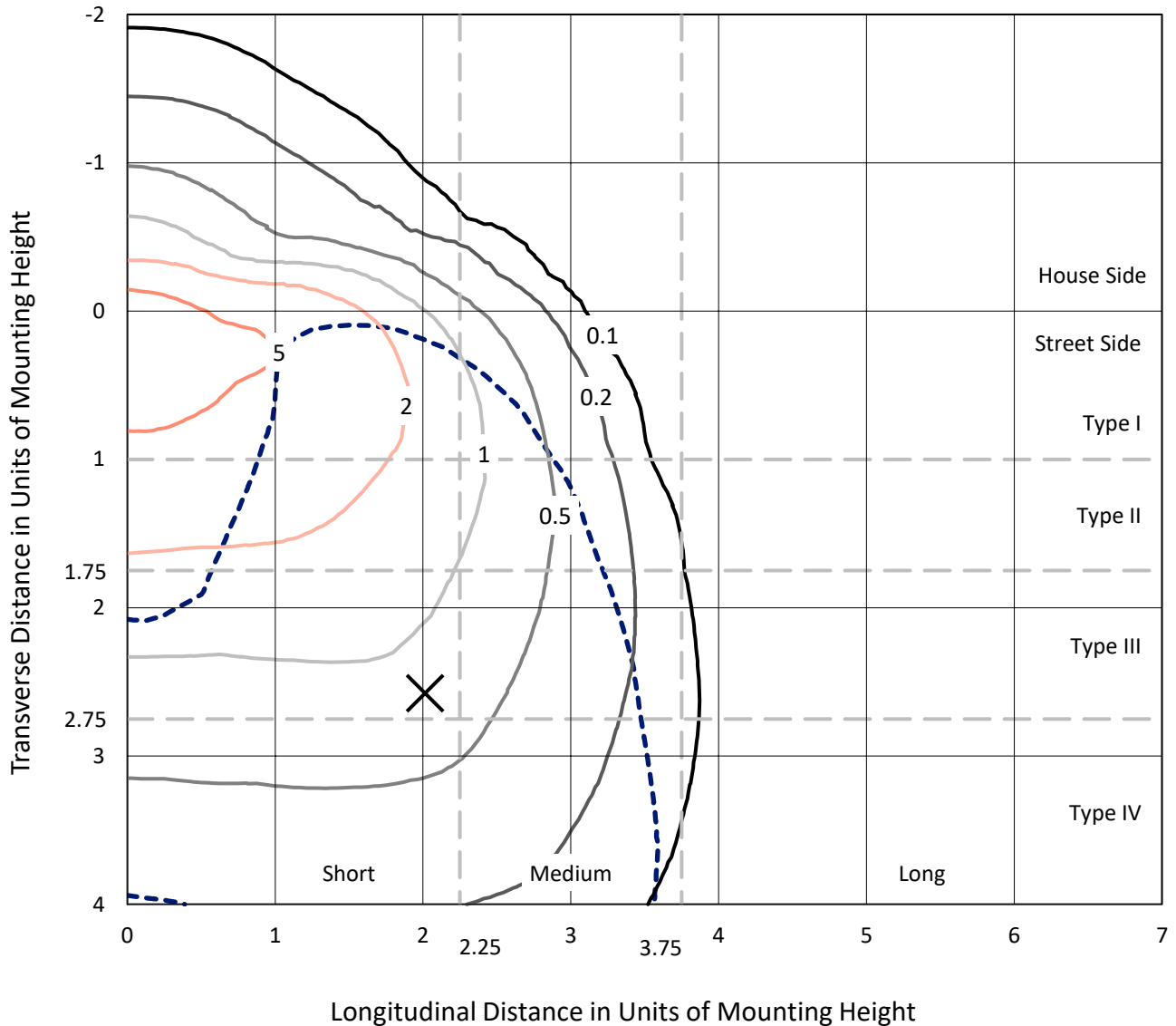
Input Watts (W): 309
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P454754
 CATALOG NUMBER: GALN-SA5D-827-U-SL4

Iso-Footcandle Lines of Horizontal Illumination

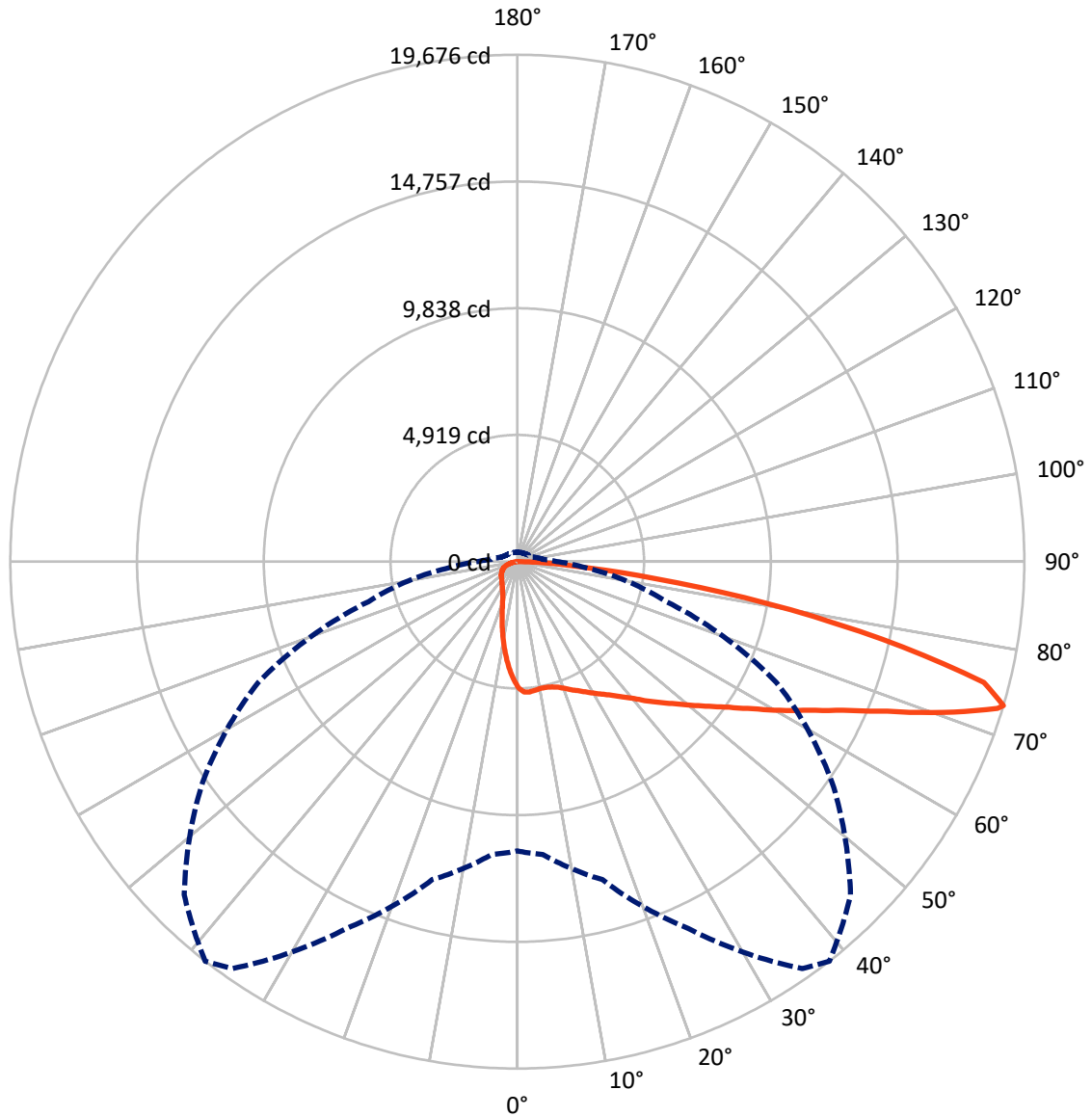
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8 fc
 Type IV - Short - N/A

REPORT NUMBER: P454754
CATALOG NUMBER: GALN-SA5D-827-U-SL4

Luminous Intensity Polar Plot



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

REPORT NUMBER: P454754

CATALOG NUMBER: GALN-SA5D-827-U-SL4

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3747.4	0.0	3747.4
	% Fixture	13.4	0.0	13.4
Street Side	Lumens	24128.6	0.0	24128.6
	% Fixture	86.6	0.0	86.6
Total	Lumens	27876.0	0.0	27876.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	427.5	1.5
10°-20°	1096.2	3.9
20°-30°	1707.0	6.1
30°-40°	2503.8	9.0
40°-50°	3714.1	13.3
50°-60°	5262.1	18.9
60°-70°	6675.2	23.9
70°-80°	5556.6	19.9
80°-90°	933.6	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°	27876.0	100.0
0°-180°	27876.0	100.0

Coefficient of Utilization



REPORT NUMBER: P454754

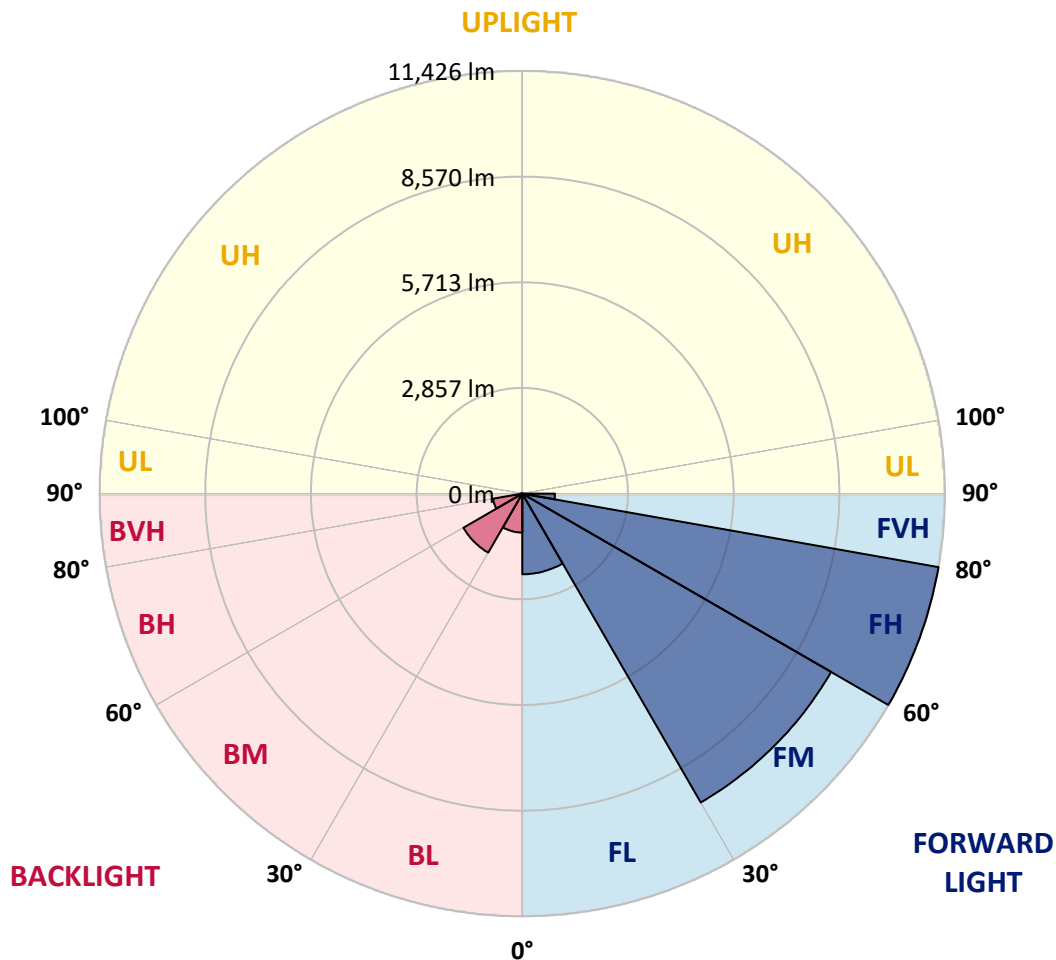
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2179.1	7.8			
FM (30°-60°)	9640.3	34.6			
FH (60°-80°)	11426.3	41.0			G4/12000
FVH (80°-90°)	883.0	3.2			G5
BL (0°-30°)	1051.5	3.8	B3/2500		
BM (30°-60°)	1839.7	6.6	B2/2500		
BH (60°-80°)	805.5	2.9	B2/1000		G2/1000
BVH (80°-90°)	50.6	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





REPORT NUMBER: P454754

CATALOG NUMBER: GALN-SA5D-827-U-SL4

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	38°	45°	55°	65°	75°	85°
0°	4897.3	4897.3	4897.3	4897.3	4897.3	4897.3	4897.3	4897.3	4897.3	4897.3	4897.3
2.5°	5094.1	5119.3	5106.7	5089.4	5078.4	5067.4	5051.6	5006.0	4969.8	4930.4	4869.0
5°	5131.9	5147.6	5136.6	5114.6	5089.4	5078.4	5048.5	4988.6	4930.4	4864.3	4773.0
7.5°	5109.9	5116.2	5103.6	5076.8	5054.8	5034.3	4999.7	4933.5	4862.7	4782.4	4662.8
10°	5031.1	5054.8	5054.8	5032.7	5010.7	4999.7	4965.0	4902.1	4837.5	4746.2	4604.5
12.5°	4966.6	4991.8	5012.3	5006.0	5004.4	5004.4	4977.6	4930.4	4854.8	4768.3	4599.8
15°	4922.5	4952.4	4996.5	5021.7	5037.4	5042.2	5031.1	4990.2	4913.1	4812.3	4618.7
17.5°	4913.1	4949.3	5029.6	5084.7	5125.6	5124.0	5120.9	5064.2	4979.2	4875.3	4642.3
20°	4955.6	5002.8	5114.6	5201.2	5261.0	5250.0	5232.6	5158.7	5059.5	4943.0	4664.4
22.5°	5083.1	5131.9	5254.7	5349.1	5407.4	5407.4	5355.4	5257.8	5152.4	5021.7	4694.3
25°	5265.7	5319.2	5449.9	5545.9	5572.7	5552.2	5500.3	5382.2	5261.0	5135.0	4757.2
27.5°	5489.2	5553.8	5675.0	5755.3	5747.4	5731.7	5678.1	5527.0	5405.8	5290.9	4864.3
30°	5767.9	5815.1	5941.0	5959.9	5931.6	5928.4	5852.9	5701.8	5588.4	5500.3	5017.0
32.5°	6030.8	6073.3	6174.0	6181.9	6131.5	6137.8	6067.0	5928.4	5863.9	5832.4	5273.6
35°	6309.4	6331.4	6418.0	6408.6	6375.5	6370.8	6342.5	6210.2	6230.7	6287.4	5637.2
37.5°	6542.4	6586.5	6635.3	6643.1	6641.6	6657.3	6676.2	6613.2	6731.3	6909.2	6114.2
40°	6756.5	6794.3	6866.7	6891.9	6953.2	6984.7	7049.3	7050.8	7323.2	7616.0	6701.4
42.5°	6901.3	6965.8	7101.2	7146.9	7296.4	7390.9	7486.9	7589.2	7984.3	8360.6	7394.0
45°	7027.2	7112.2	7337.4	7479.0	7682.1	7797.0	8000.1	8214.2	8782.5	9275.2	8097.7
47.5°	7217.7	7293.3	7551.4	7801.7	8108.7	8240.9	8544.8	8864.3	9607.4	10147.3	8771.5
50°	7482.2	7527.8	7790.7	8198.4	8590.4	8760.4	9161.9	9623.1	10488.9	11008.4	9363.4
52.5°	7820.6	7839.5	8048.9	8592.0	9108.3	9319.3	9851.4	10389.7	11260.3	11756.1	9832.5
55°	8220.5	8189.0	8352.7	9009.2	9700.2	9975.7	10547.1	11165.8	12127.6	12360.6	10174.1
57.5°	8615.6	8566.8	8697.5	9516.0	10430.7	10762.8	11428.7	11965.5	12902.2	12925.8	10413.3
60°	9034.3	8998.1	9154.0	10111.1	11326.4	11719.9	12335.4	12795.1	13651.5	13319.3	10451.1
62.5°	9464.1	9405.9	9627.8	10780.1	12335.4	12692.8	13289.4	13676.7	14386.6	13465.7	10087.5
65°	9881.3	9854.5	10197.7	11575.1	13484.6	13890.8	14470.1	14733.0	14975.4	13245.3	9185.5
67.5°	10325.2	10378.7	10926.5	12636.1	14983.2	15493.3	16118.2	15871.1	15143.8	12201.6	7735.6
70°	11002.1	11036.7	11883.6	14026.1	16914.8	17530.3	17832.6	16275.7	14331.5	10219.7	5815.1
72.5°	11293.3	11446.0	12738.4	15485.4	19109.2	19485.5	18408.7	15373.7	11938.7	6942.2	3055.5
73°	11228.8	11411.4	12777.8	15707.4	19280.8	19675.9	18285.9	14909.3	11098.1	5978.8	2619.5
75°	10424.4	10649.5	12266.2	15521.6	18947.1	18711.0	16311.9	12707.0	7499.5	2718.6	1193.2
77.5°	8225.2	8289.7	9719.1	12533.8	14920.3	14482.7	12207.9	7941.8	3063.4	1010.6	676.9
80°	4126.0	4363.7	5478.2	7179.9	9977.3	9834.0	7705.7	3756.0	1276.7	593.5	448.6
82.5°	1985.1	2153.5	2668.3	3501.0	5512.9	5382.2	3815.9	2052.8	810.7	346.3	264.5
85°	1278.3	1404.2	1698.6	1670.2	2266.9	2164.5	1714.3	1553.7	480.1	181.0	184.2
87.5°	843.8	924.1	1108.2	886.3	824.9	746.2	757.2	875.3	94.5	69.3	25.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P454754
 CATALOG NUMBER: GALN-SA5D-827-U-SL4

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4897.3	4897.3	4897.3	4897.3	4897.3	4897.3	4897.3	4897.3	4897.3	4897.3	4897.3
2.5°	4843.8	4823.4	4755.7	4689.5	4626.6	4566.8	4527.4	4475.5	4440.8	4450.3	4464.4
5°	4722.6	4677.0	4557.3	4440.8	4330.6	4200.0	4094.5	4009.5	3944.9	3921.3	3916.6
7.5°	4595.1	4518.0	4346.4	4146.4	3959.1	3797.0	3609.6	3516.8	3408.1	3370.4	3357.8
10°	4518.0	4414.1	4173.2	3894.6	3612.8	3343.6	3140.5	2975.2	2825.7	2797.4	2783.2
12.5°	4495.9	4359.0	4034.7	3675.8	3301.1	2970.5	2669.8	2452.6	2307.8	2274.7	2225.9
15°	4483.3	4313.3	3905.6	3455.4	2980.0	2577.0	2260.6	2007.1	1874.9	1786.7	1788.3
17.5°	4472.3	4261.4	3760.8	3214.5	2702.9	2238.5	1889.0	1660.8	1539.6	1492.3	1487.6
20°	4456.6	4200.0	3593.9	2961.1	2386.5	1930.0	1613.6	1443.5	1361.7	1322.3	1320.8
22.5°	4450.3	4140.1	3430.2	2702.9	2106.3	1692.3	1430.9	1311.3	1259.4	1232.6	1232.6
25°	4466.0	4097.6	3258.6	2457.3	1857.6	1489.2	1305.0	1223.2	1193.2	1179.1	1174.4
27.5°	4514.8	4078.8	3088.6	2211.8	1629.3	1350.7	1220.0	1163.3	1141.3	1130.3	1131.9
30°	4607.7	4077.2	2921.7	1969.3	1459.3	1245.2	1152.3	1113.0	1095.6	1089.3	1087.8
32.5°	4757.2	4111.8	2758.0	1769.4	1316.0	1157.0	1089.3	1061.0	1053.1	1048.4	1046.8
35°	5010.7	4209.4	2595.9	1586.8	1205.8	1078.3	1029.5	1015.4	1004.3	1009.1	1010.6
37.5°	5352.3	4377.9	2441.6	1443.5	1122.4	1020.1	979.2	966.6	960.3	965.0	969.7
40°	5810.4	4620.3	2312.5	1328.6	1062.6	971.3	935.1	924.1	917.8	925.6	927.2
42.5°	6315.7	4900.5	2205.5	1238.9	1013.8	930.4	895.7	883.1	878.4	883.1	884.7
45°	6835.2	5226.3	2150.4	1174.4	972.9	900.4	864.2	850.1	839.0	835.9	840.6
47.5°	7346.8	5509.7	2148.8	1135.0	939.8	873.7	834.3	818.6	804.4	796.5	795.0
50°	7764.0	5734.8	2186.6	1117.7	911.5	843.8	804.4	788.7	769.8	754.0	757.2
52.5°	8078.8	5881.2	2203.9	1109.8	895.7	812.3	772.9	758.8	736.7	716.3	716.3
55°	8281.9	5915.8	2161.4	1101.9	883.1	779.2	736.7	724.1	702.1	681.6	681.6
57.5°	8351.1	5808.8	2008.7	1083.1	870.5	750.9	700.5	689.5	672.2	651.7	648.6
60°	8190.6	5446.7	1741.1	1026.4	845.3	721.0	661.2	656.4	650.1	632.8	631.3
62.5°	7571.9	4678.5	1449.8	952.4	802.8	689.5	625.0	632.8	637.6	628.1	626.5
65°	6542.4	3798.5	1238.9	850.1	746.2	645.4	585.6	606.1	618.7	618.7	615.5
67.5°	5306.6	2917.0	1043.7	761.9	675.3	585.6	541.5	557.3	566.7	563.6	571.4
70°	3771.8	1975.6	850.1	661.2	585.6	517.9	484.9	484.9	478.6	475.4	475.4
72.5°	1829.2	1128.7	689.5	552.5	499.0	442.4	415.6	404.6	392.0	390.4	382.5
73°	1528.5	1012.2	658.0	532.1	478.6	431.3	401.4	384.1	376.2	369.9	368.4
75°	930.4	768.2	549.4	448.6	407.7	371.5	344.8	329.0	321.1	316.4	314.8
77.5°	612.4	573.0	426.6	343.2	311.7	289.7	278.6	262.9	258.2	251.9	251.9
80°	456.5	437.6	305.4	242.4	223.5	204.6	201.5	198.3	185.8	177.9	174.7
82.5°	294.4	311.7	207.8	162.1	141.7	125.9	127.5	132.2	119.6	108.6	105.5
85°	209.4	225.1	125.9	74.0	59.8	51.9	58.2	51.9	53.5	42.5	34.6
87.5°	34.6	59.8	22.0	9.4	4.7	3.1	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)