

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: P452891

Luminaire Tested: **GALN-SA3D-827-U-AFL**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P452891
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-24)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA3D-827-U-AFL
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(3) 80 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 17143 lumens
Efficiency: N/A
Efficacy: 93.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

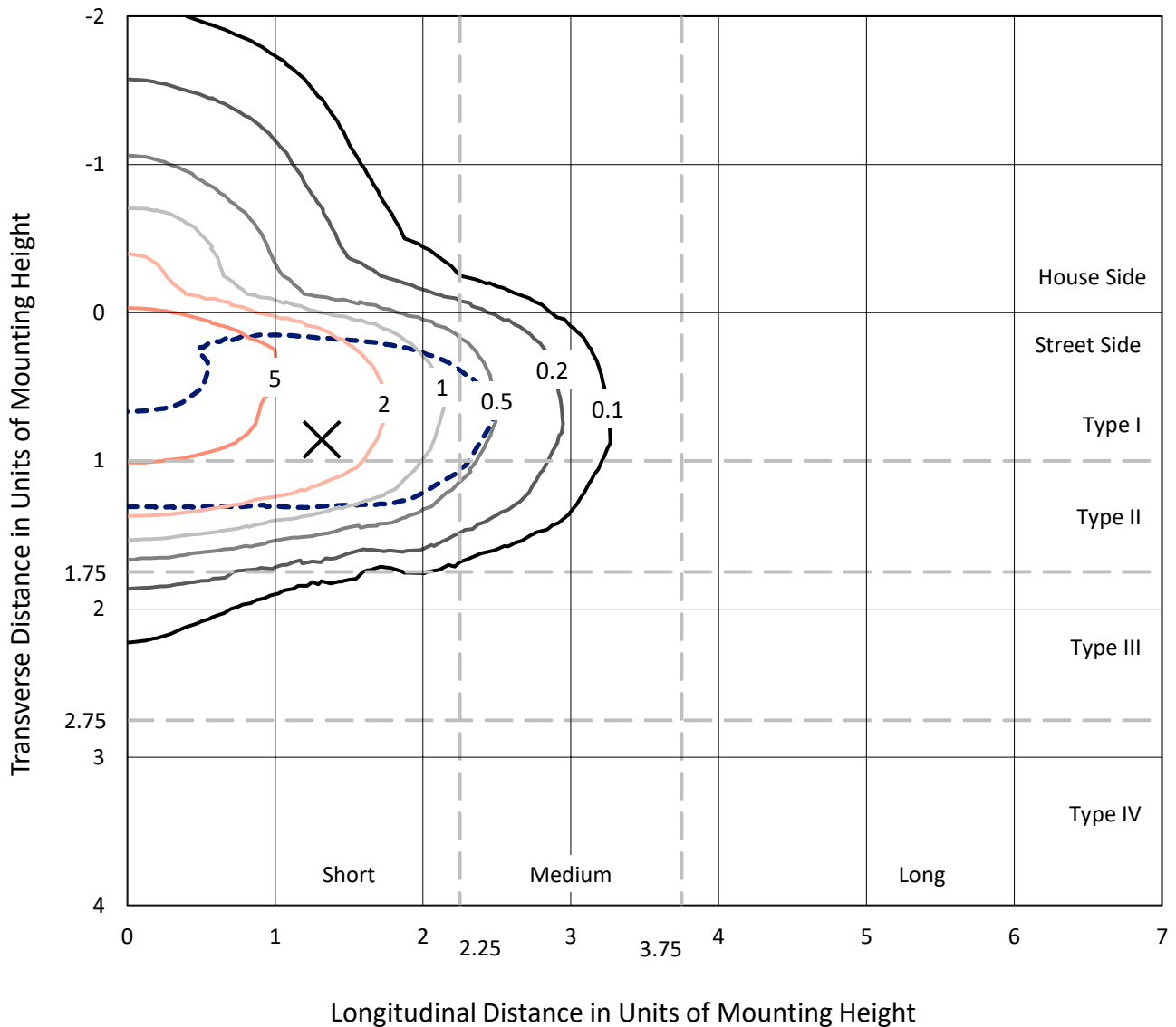
Input Watts (W): 184
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

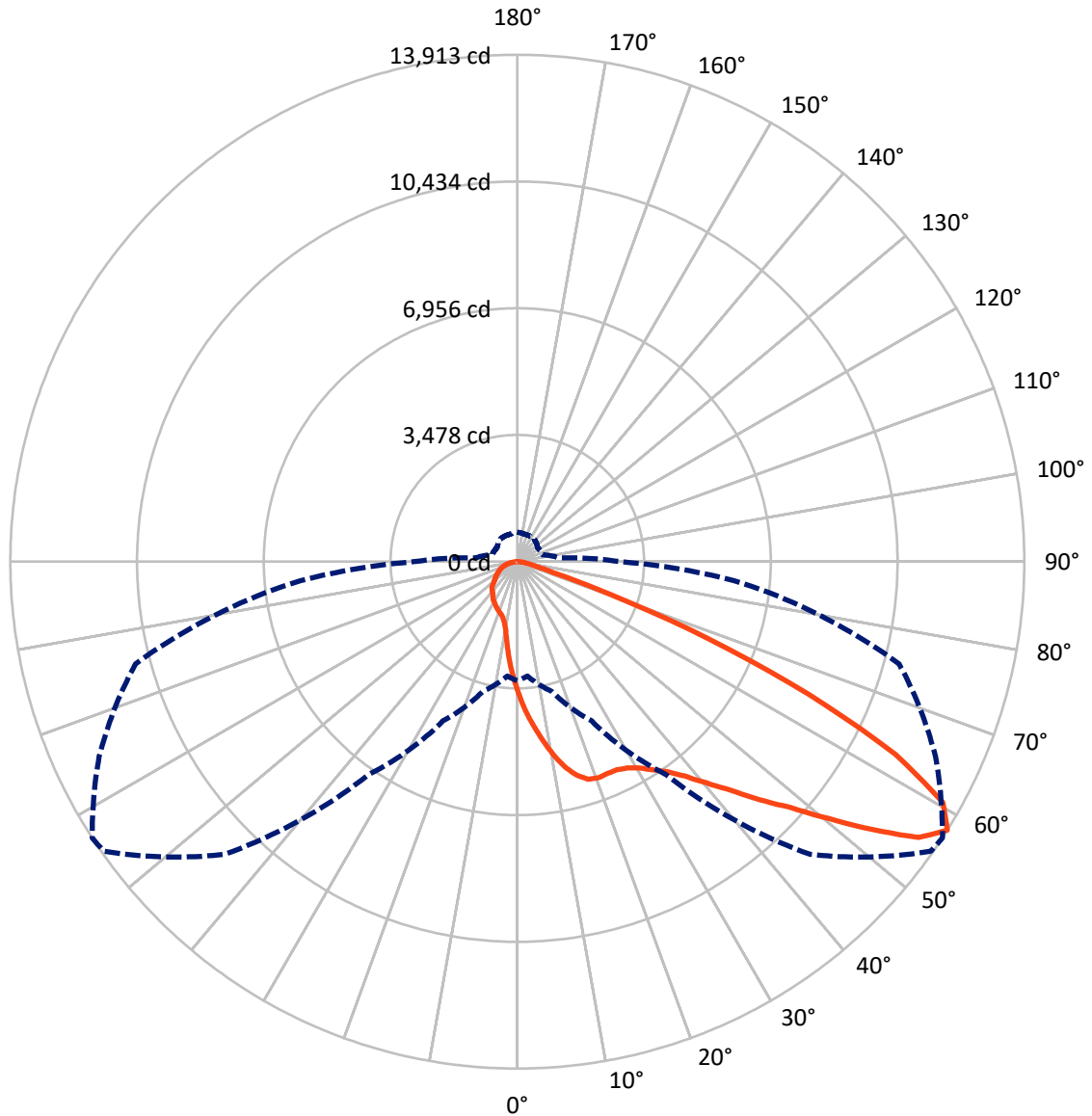
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 8.8 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral - - - Horizontal Cone Through 57.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2607.0	0.0	2607.0
	% Fixture	15.2	0.0	15.2
Street Side	Lumens	14536.0	0.0	14536.0
	% Fixture	84.8	0.0	84.8
Total	Lumens	17143.0	0.0	17143.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	346.1	2.0
10°-20°	1020.1	6.0
20°-30°	1693.9	9.9
30°-40°	2551.5	14.9
40°-50°	3830.9	22.3
50°-60°	4293.9	25.0
60°-70°	2513.0	14.7
70°-80°	743.3	4.3
80°-90°	150.2	0.9
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°	17143.0	100.0
0°-180°	17143.0	100.0

Coefficient of Utilization



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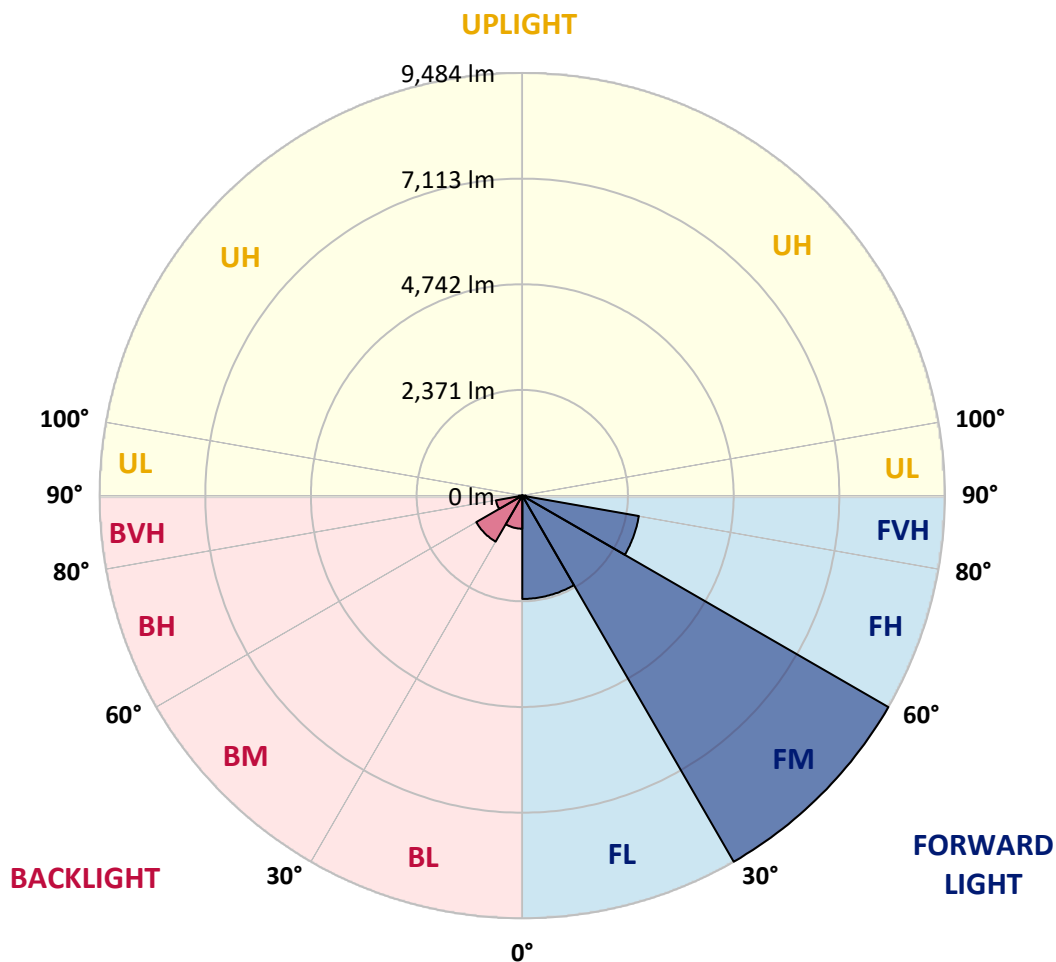
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2317.3	13.5			
FM	(30°-60°)	9484.3	55.3			
FH	(60°-80°)	2656.5	15.5			G2/5000
FVH	(80°-90°)	78.0	0.5			G1/100
BL	(0°-30°)	742.8	4.3	B2/1000		
BM	(30°-60°)	1192.0	7.0	B2/2500		
BH	(60°-80°)	599.8	3.5	B2/1000		G2/1000
BVH	(80°-90°)	72.3	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	3601.5	3601.5	3601.5	3601.5	3601.5	3601.5	3601.5	3601.5	3601.5	3601.5	3601.5
2.5°	4475.2	4426.4	4387.9	4354.1	4310.0	4190.9	4071.7	4069.8	3975.0	3828.6	3678.5
5°	5204.3	5138.6	5147.1	5042.0	4936.9	4764.2	4511.8	4498.7	4296.9	4022.9	3744.2
7.5°	5679.1	5680.1	5653.8	5593.8	5480.2	5284.1	4997.9	4933.1	4652.5	4236.8	3819.3
10°	5654.7	5680.1	5724.2	5775.8	5810.5	5713.9	5453.0	5374.2	5009.1	4495.8	3902.8
12.5°	5330.1	5369.5	5432.4	5561.8	5771.1	5930.6	5841.5	5777.7	5422.0	4753.9	3994.7
15°	5127.4	5150.8	5185.6	5272.8	5498.0	5880.0	6110.8	6077.0	5811.5	5045.7	4098.0
17.5°	5065.4	5088.9	5100.2	5153.6	5314.1	5705.4	6216.8	6276.9	6156.8	5314.1	4202.1
20°	5127.4	5138.6	5138.6	5170.5	5296.3	5603.1	6212.2	6333.2	6440.2	5636.0	4299.7
22.5°	5289.7	5294.4	5287.8	5299.1	5392.9	5631.3	6168.0	6318.2	6669.2	5909.1	4375.7
25°	5553.4	5560.9	5517.7	5491.5	5560.0	5755.2	6192.4	6330.4	6848.4	6169.9	4426.4
27.5°	5852.8	5862.1	5809.6	5748.6	5780.5	5908.1	6288.2	6412.0	6982.6	6427.0	4458.3
30°	6219.7	6223.4	6135.2	6062.0	6041.4	6136.1	6451.4	6566.9	7149.6	6730.1	4506.2
32.5°	6595.0	6623.2	6509.6	6406.4	6371.7	6400.8	6692.6	6804.3	7348.5	7055.8	4583.1
35°	7105.5	7110.2	6974.1	6848.4	6733.9	6771.4	7001.3	7082.0	7623.5	7432.1	4692.0
37.5°	7742.7	7785.8	7598.2	7363.6	7222.8	7168.4	7374.8	7463.0	8009.2	7893.8	4856.2
40°	8450.2	8466.2	8305.7	8159.3	7902.2	7744.5	7887.2	7982.9	8484.9	8444.6	5046.7
42.5°	8895.0	8929.7	8941.9	8926.9	8733.6	8469.0	8523.4	8568.5	9048.0	8961.6	5241.9
45°	9045.2	9096.8	9271.3	9641.0	9661.7	9400.8	9274.1	9317.3	9661.7	9483.4	5428.6
47.5°	8796.5	8884.7	9206.6	9964.8	10532.5	10552.2	10170.3	10075.5	10221.0	9916.0	5563.7
50°	8153.7	8172.5	8665.1	9763.0	10940.7	11653.0	11257.9	11081.5	10752.1	10236.0	5656.6
52.5°	7159.0	7180.6	7593.5	8825.6	10689.2	12422.4	12530.3	12215.0	11291.7	10484.7	5717.6
55°	5314.1	5438.9	5893.1	7083.9	9497.5	12350.2	13541.9	13362.7	11943.9	10681.7	5813.3
57.5°	3267.5	3153.0	3691.6	4819.6	7143.0	11357.4	13854.4	13912.6	12661.7	10846.9	5973.8
60°	1503.3	1525.8	1748.2	2485.8	4354.1	8884.7	13049.3	13417.1	13058.7	10841.2	6014.2
62.5°	1036.0	1015.3	959.0	1091.3	1985.6	5619.1	11022.4	11645.4	12262.9	10504.4	5853.7
65°	926.2	905.5	796.7	760.1	912.1	2449.2	8012.9	8799.3	10325.1	9654.2	5453.9
67.5°	865.2	837.0	724.4	653.1	651.2	975.0	4724.8	5671.6	7658.2	8162.1	4725.7
70°	801.4	778.9	667.2	588.4	554.6	612.8	2076.7	2718.5	4972.5	5881.8	3681.3
72.5°	737.6	711.3	610.9	526.4	482.3	458.9	795.8	1035.0	2809.5	3526.5	2256.8
75°	644.7	631.5	546.1	476.7	428.8	370.7	504.9	576.2	1343.8	1619.7	1132.6
77.5°	564.0	549.9	485.1	416.6	381.9	301.2	358.5	391.3	566.8	656.9	511.4
80°	412.9	427.0	409.1	367.8	340.6	236.5	241.2	268.4	336.9	372.5	312.5
82.5°	261.8	288.1	315.3	283.4	258.1	186.7	167.0	177.4	229.9	244.0	138.9
85°	109.8	111.7	183.0	172.7	147.3	110.7	100.4	106.0	122.9	128.6	64.7
87.5°	42.2	41.3	64.7	60.1	46.0	31.9	31.9	35.7	48.8	45.0	20.6
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°	3601.5	3601.5	3601.5	3601.5	3601.5	3601.5	3601.5	3601.5	3601.5	3601.5	3601.5
2.5°	3613.7	3547.1	3414.8	3250.6	3130.5	2995.3	2876.2	2790.8	2758.9	2743.9	2715.7
5°	3610.9	3479.6	3205.5	2918.4	2687.6	2451.1	2251.2	2121.7	2110.4	2024.1	2015.7
7.5°	3611.9	3411.1	2974.7	2552.4	2200.5	1958.4	1793.3	1750.1	1698.5	1685.4	1691.9
10°	3614.7	3323.8	2727.0	2190.2	1849.6	1691.0	1629.0	1612.2	1614.0	1619.7	1620.6
12.5°	3618.4	3239.3	2469.8	1915.3	1652.5	1586.8	1580.3	1595.3	1611.2	1623.4	1626.2
15°	3623.1	3142.7	2219.3	1693.8	1554.0	1548.3	1569.9	1595.3	1617.8	1635.6	1638.4
17.5°	3617.5	3030.1	2009.1	1557.7	1499.6	1526.8	1562.4	1594.3	1615.0	1631.9	1633.7
20°	3604.4	2904.3	1806.4	1462.0	1465.8	1509.9	1548.3	1578.4	1600.9	1609.3	1615.9
22.5°	3553.7	2754.2	1630.0	1387.9	1425.4	1486.4	1532.4	1550.2	1524.9	1507.1	1511.7
25°	3467.4	2559.0	1465.8	1327.8	1388.8	1453.6	1500.5	1457.3	1436.7	1429.2	1432.9
27.5°	3359.4	2345.0	1341.9	1265.0	1341.9	1417.0	1403.8	1396.3	1386.9	1374.7	1377.6
30°	3243.1	2135.8	1236.8	1216.2	1291.2	1334.4	1340.0	1352.2	1341.9	1323.1	1330.6
32.5°	3135.2	1938.7	1157.0	1174.9	1255.6	1249.0	1291.2	1305.3	1257.4	1194.6	1197.4
35°	3043.2	1755.7	1097.0	1134.5	1194.6	1197.4	1239.6	1190.8	1139.2	1109.2	1111.1
37.5°	2973.8	1613.1	1057.6	1099.8	1116.7	1152.3	1129.8	1104.5	1097.9	1077.3	1078.2
40°	2932.5	1488.3	1032.2	1072.6	1069.8	1094.2	1021.9	1047.2	1056.6	1050.1	1051.0
42.5°	2891.2	1400.1	1006.0	1035.0	1034.1	986.2	970.3	991.9	1016.3	1019.1	1017.2
45°	2858.3	1331.6	978.7	977.8	996.6	921.5	916.8	929.9	964.7	981.6	980.6
47.5°	2821.7	1274.3	937.5	911.2	916.8	881.1	873.6	879.3	921.5	948.7	956.2
50°	2775.8	1217.1	885.8	850.2	826.7	843.6	845.5	846.4	888.7	919.6	926.2
52.5°	2739.2	1173.9	826.7	800.4	772.3	809.8	823.9	825.8	851.1	876.5	881.1
55°	2760.7	1149.5	768.5	749.8	724.4	775.1	802.3	806.1	811.7	830.5	833.3
57.5°	2825.5	1155.2	721.6	697.2	678.5	733.8	779.8	782.6	778.9	801.4	805.1
60°	2845.2	1152.3	686.9	639.0	627.8	689.7	747.0	752.6	751.7	784.5	791.1
62.5°	2762.6	1116.7	652.2	590.2	582.7	644.7	701.0	723.5	728.2	775.1	783.6
65°	2568.4	1043.5	606.2	538.6	538.6	596.8	656.9	687.8	701.0	763.9	773.2
67.5°	2312.2	957.2	559.3	494.5	492.7	550.8	610.0	641.9	662.5	747.9	753.5
70°	1919.0	840.8	501.1	446.7	446.7	499.2	552.7	591.2	621.2	717.9	717.9
72.5°	1314.7	699.1	430.7	392.2	393.2	442.0	496.4	539.6	575.2	657.8	659.7
75°	831.4	546.1	353.8	334.1	337.8	383.8	440.1	485.1	556.5	650.3	653.1
77.5°	442.0	383.8	281.5	276.8	281.5	323.7	386.6	448.6	558.3	564.0	554.6
80°	286.2	272.1	222.4	213.0	214.9	260.9	344.4	426.0	448.6	454.2	433.5
82.5°	155.8	172.7	157.6	148.3	148.3	203.6	293.7	338.8	321.9	267.4	255.2
85°	66.6	80.7	81.6	71.3	68.5	125.7	197.1	184.9	171.7	164.2	162.3
87.5°	18.8	26.3	26.3	19.7	15.0	34.7	39.4	11.3	0.0	0.9	1.9
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)