

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: P453837

Luminaire Tested: **GALN-SA4D-827-U-T3**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453837
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-12)
Test Lab: INNOVATION CENTER
Issue Date: 1/4/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GALN-SA4D-827-U-T3
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22309 lumens
Efficiency: N/A
Efficacy: 91.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U0 - G3

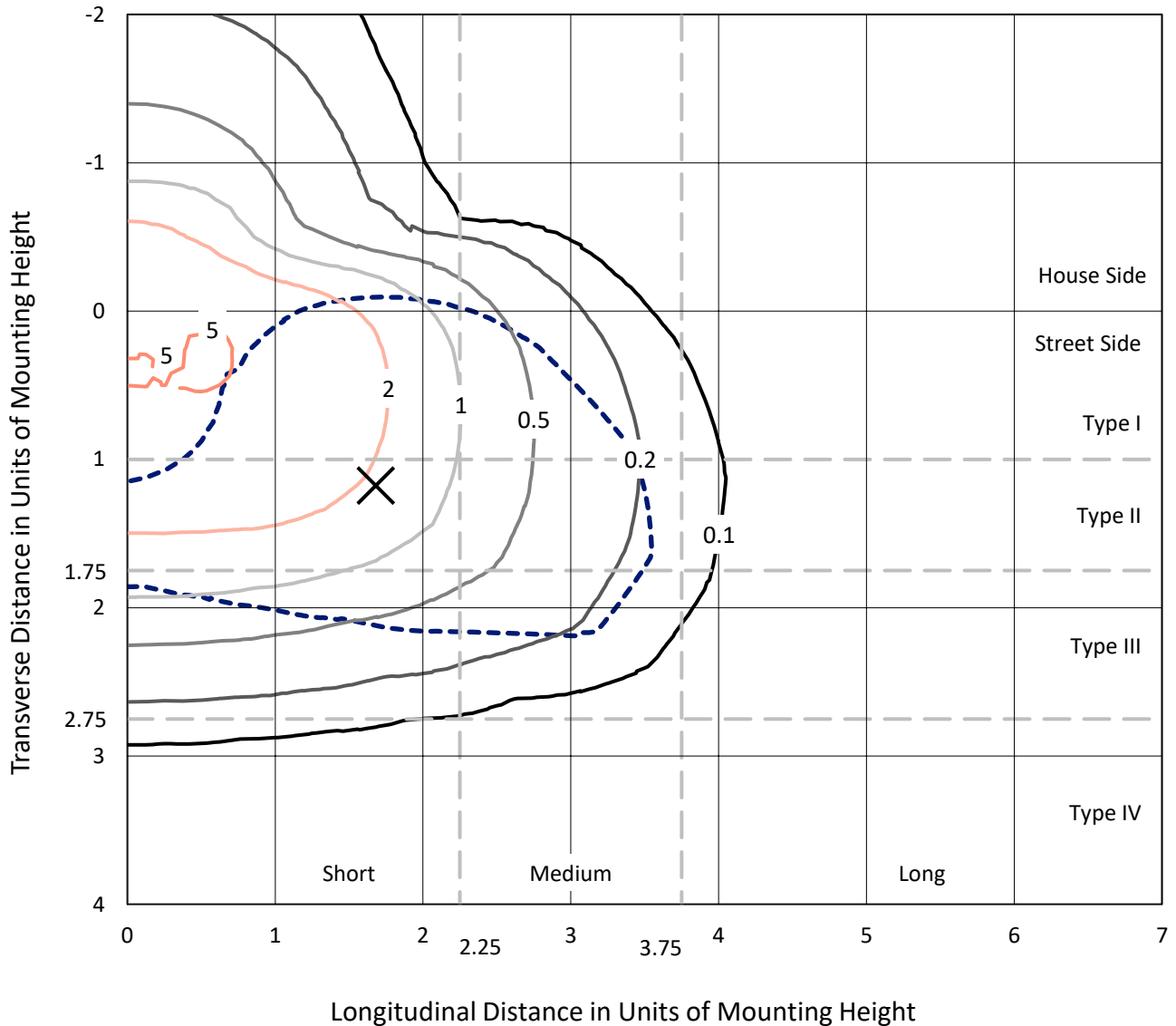
Input Watts (W): 245
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

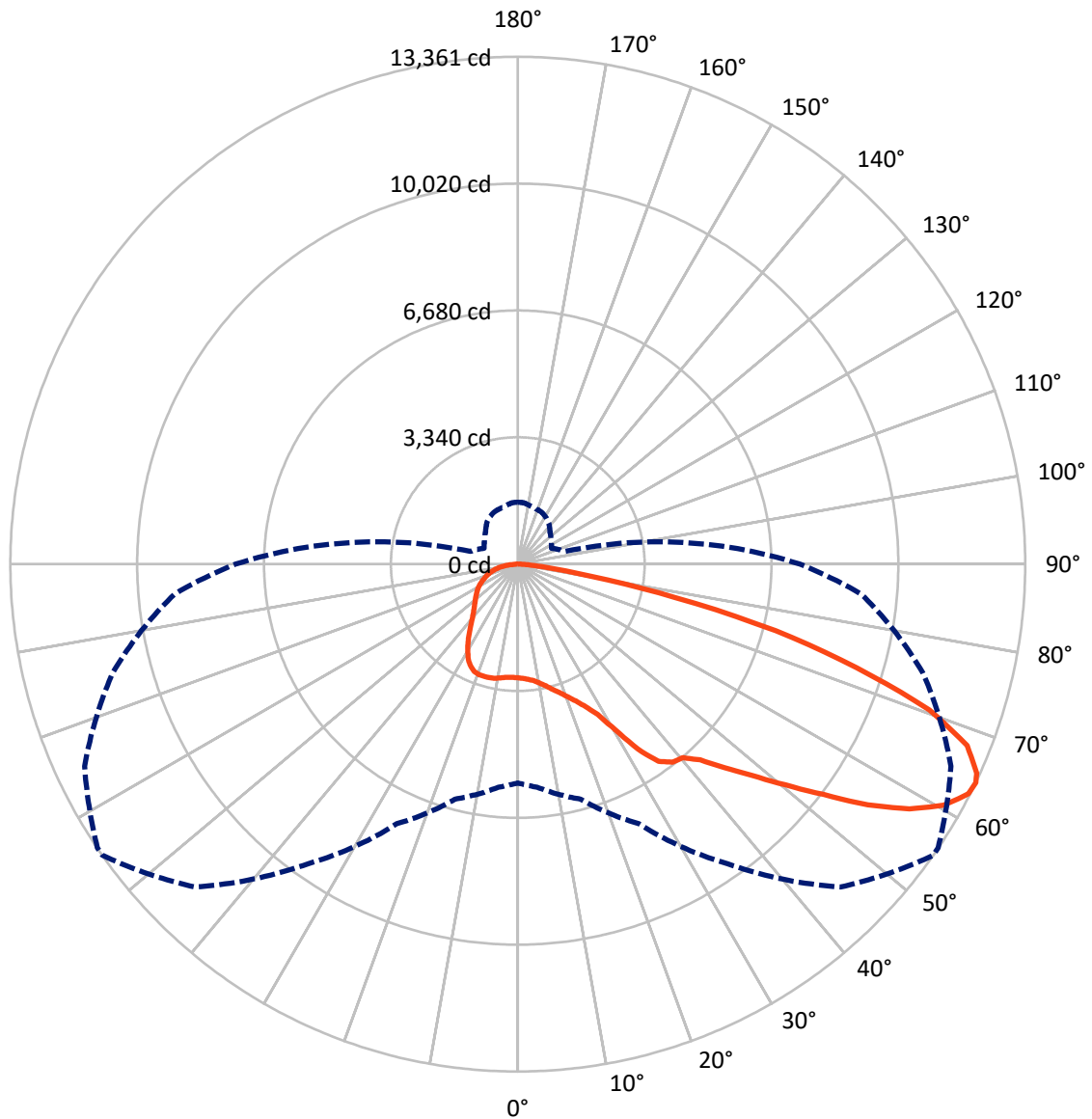
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.5 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 64-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5419.3	0.0	5419.3
	% Fixture	24.3	0.0	24.3
Street Side	Lumens	16889.7	0.0	16889.7
	% Fixture	75.7	0.0	75.7
Total	Lumens	22309.0	0.0	22309.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	291.2	1.3
10°-20°	918.7	4.1
20°-30°	1635.5	7.3
30°-40°	2516.4	11.3
40°-50°	3567.2	16.0
50°-60°	5163.5	23.1
60°-70°	5343.6	24.0
70°-80°	2502.4	11.2
80°-90°	370.5	1.7
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°	22309.0	100.0
0°-180°	22309.0	100.0

Coefficient of Utilization



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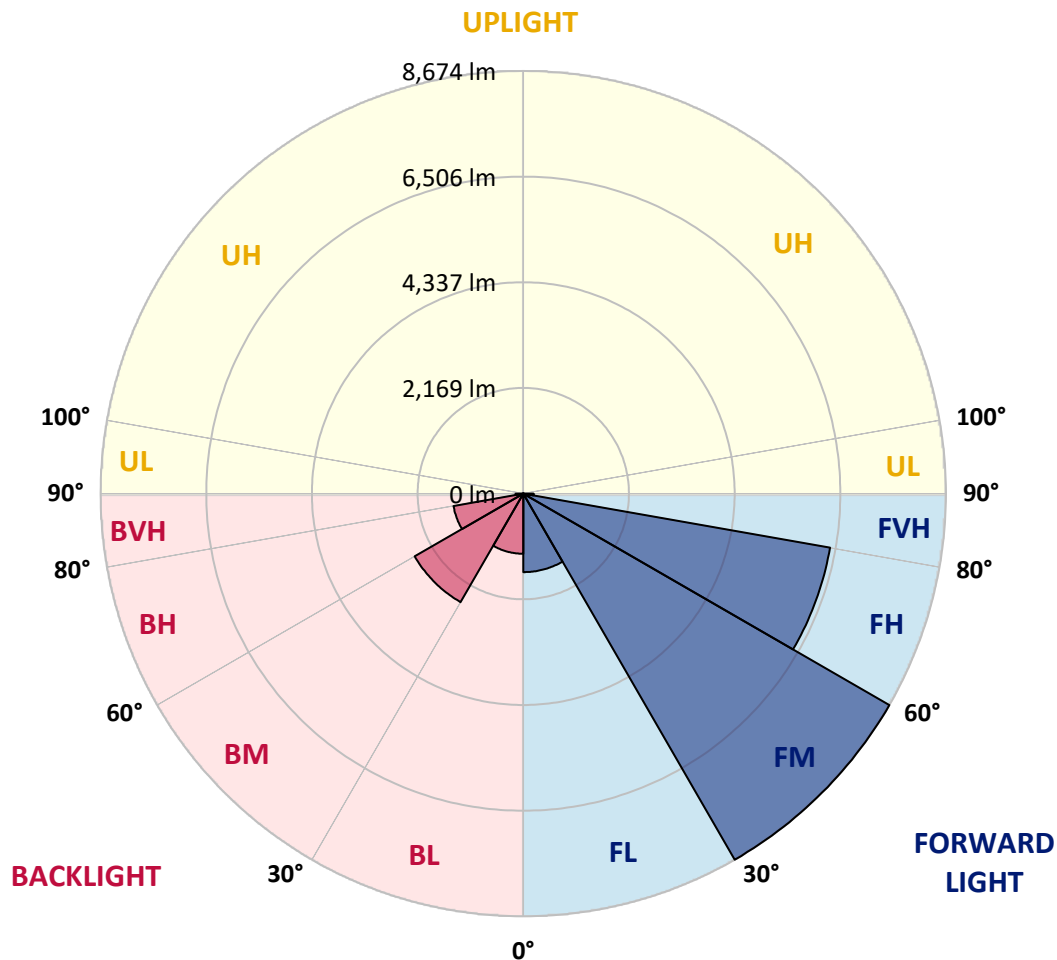
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1611.1	7.2			
FM	(30°-60°)	8674.3	38.9			
FH	(60°-80°)	6392.2	28.7			G3/7500
FVH	(80°-90°)	212.1	1.0			G2/225
BL	(0°-30°)	1234.3	5.5	B3/2500		
BM	(30°-60°)	2572.8	11.5	B3/5000		
BH	(60°-80°)	1453.9	6.5	B3/2500		G3/2500
BVH	(80°-90°)	158.3	0.7			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	65°	75°	85°
0°	2993.2	2993.2	2993.2	2993.2	2993.2	2993.2	2993.2	2993.2	2993.2	2993.2	2993.2
2.5°	3026.8	3025.5	3029.3	3025.5	3028.0	3019.3	3015.6	3018.1	3014.3	3008.1	2996.9
5°	3064.1	3062.8	3064.1	3059.1	3061.6	3056.6	3047.9	3050.4	3044.2	3030.5	3014.3
7.5°	3127.5	3122.5	3122.5	3121.3	3116.3	3108.8	3102.6	3100.1	3093.9	3076.5	3051.6
10°	3209.6	3209.6	3210.8	3200.9	3207.1	3193.4	3187.2	3185.9	3164.8	3142.4	3107.6
12.5°	3317.8	3324.0	3320.2	3315.3	3312.8	3307.8	3286.7	3291.6	3268.0	3229.5	3187.2
15°	3452.1	3462.0	3455.8	3453.3	3447.1	3428.4	3419.7	3416.0	3384.9	3328.9	3273.0
17.5°	3629.9	3617.5	3612.5	3606.3	3580.1	3566.5	3551.5	3549.1	3521.7	3455.8	3368.7
20°	3785.3	3802.7	3792.8	3786.6	3760.5	3734.3	3723.2	3719.4	3695.8	3623.7	3484.4
22.5°	3970.6	3974.3	3978.1	3963.2	3950.7	3930.8	3910.9	3904.7	3896.0	3821.4	3651.0
25°	4168.3	4183.3	4170.8	4155.9	4141.0	4139.7	4158.4	4155.9	4152.2	4080.0	3872.4
27.5°	4490.4	4504.1	4507.8	4491.7	4434.5	4439.4	4481.7	4495.4	4552.6	4433.2	4157.1
30°	4672.0	4685.6	4716.7	4777.7	4868.4	4948.0	5050.0	5081.1	5135.8	4910.7	4495.4
32.5°	4783.9	4788.9	4844.8	4958.0	5230.3	5527.5	5804.8	5816.0	5850.8	5535.0	4805.0
35°	4960.5	4964.2	5009.0	5133.3	5452.9	5947.8	6376.9	6390.5	6361.9	5729.0	4949.3
37.5°	5178.1	5188.0	5216.6	5319.9	5701.6	6299.8	6614.4	6604.4	6350.7	5883.2	5204.2
40°	5495.2	5495.2	5461.6	5600.9	5964.0	6501.2	6697.7	6680.3	6613.1	6329.6	5592.2
42.5°	5775.0	5770.0	5849.6	5944.1	6292.3	6812.1	7047.1	7075.7	7186.4	6890.4	6033.6
45°	6139.3	6161.7	6206.5	6378.1	6850.6	7343.1	7646.5	7673.9	7830.6	7550.8	6549.7
47.5°	6507.4	6514.9	6655.4	6884.2	7542.1	8063.1	8311.8	8356.6	8499.6	8323.0	7105.6
50°	6768.6	6839.5	7064.5	7425.2	8254.6	8941.0	9135.0	9188.5	9440.9	9163.6	7753.5
52.5°	7044.6	7114.3	7389.1	7938.7	9072.8	9838.9	10077.6	10113.7	10376.1	10014.2	8416.3
55°	7280.9	7345.6	7657.7	8393.9	9724.5	10755.4	11188.1	11145.8	11271.4	10669.6	8927.4
57.5°	7319.5	7371.7	7764.6	8684.9	10214.4	11541.3	12161.8	12186.7	12041.2	11159.5	9348.9
60°	7021.0	7128.0	7579.4	8653.8	10434.5	12088.4	12888.0	12905.4	12492.6	11410.7	9516.8
62.5°	6492.5	6481.3	7027.2	8153.9	10126.1	12212.8	13315.8	13297.1	12669.2	11290.1	9353.9
64°	5762.6	5896.9	6406.7	7539.6	9628.7	12021.3	13360.6	13350.6	12584.6	11038.9	9076.6
65°	5317.4	5309.9	5813.5	7037.2	9133.8	11732.8	13281.0	13267.3	12408.0	10813.8	8861.4
67.5°	3838.8	3856.2	4353.6	5430.5	7425.2	10604.9	12762.4	12711.4	11711.6	10067.7	8043.2
70°	2325.4	2335.4	2725.8	3602.5	5329.8	8572.9	11504.0	11506.5	10645.9	8953.5	6845.7
72.5°	1224.9	1251.0	1407.7	2045.6	3236.9	6015.0	9332.7	9554.1	9140.0	7641.5	5408.1
75°	681.5	685.2	795.9	1008.5	1651.4	3366.3	7014.8	7078.2	7236.1	6150.5	3999.2
77.5°	519.8	527.3	562.1	651.6	899.1	1560.6	4245.4	4563.8	5099.7	4336.2	2281.9
80°	421.6	429.0	458.9	512.3	598.1	739.9	1972.3	2143.9	2729.6	1925.0	890.4
82.5°	328.3	323.3	361.9	396.7	435.2	437.7	809.5	895.3	1111.7	828.2	385.5
85°	243.7	243.7	274.8	267.4	281.0	256.2	356.9	394.2	445.2	351.9	179.1
87.5°	97.0	106.9	180.3	161.7	125.6	100.7	131.8	139.3	154.2	138.0	74.6
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°	2993.2	2993.2	2993.2	2993.2	2993.2	2993.2	2993.2	2993.2	2993.2	2993.2	2993.2
2.5°	2998.2	3001.9	2993.2	2987.0	2984.5	2980.8	2977.0	2978.3	2983.2	2988.2	2987.0
5°	3013.1	3014.3	2999.4	2992.0	2987.0	2982.0	2982.0	2985.7	2995.7	3003.1	3003.1
7.5°	3050.4	3050.4	3029.3	3015.6	3008.1	2999.4	2996.9	2998.2	3005.6	3015.6	3016.8
10°	3108.8	3103.9	3076.5	3055.4	3041.7	3020.6	3001.9	2992.0	2995.7	3001.9	3001.9
12.5°	3179.7	3166.0	3131.2	3102.6	3069.1	3029.3	2990.7	2970.8	2969.6	2975.8	2973.3
15°	3255.6	3240.7	3192.2	3139.9	3081.5	3023.0	2977.0	2948.4	2926.0	2919.8	2933.5
17.5°	3343.9	3312.8	3245.6	3173.5	3086.5	3010.6	2938.5	2880.0	2840.2	2829.0	2832.8
20°	3450.8	3409.8	3319.0	3205.8	3082.7	2965.8	2853.9	2775.6	2710.9	2691.0	2693.5
22.5°	3598.8	3527.9	3394.9	3222.0	3051.6	2881.3	2725.8	2623.9	2545.5	2514.4	2533.1
25°	3766.7	3689.6	3467.0	3218.3	2970.8	2745.7	2574.1	2441.1	2370.2	2324.2	2334.1
27.5°	3998.0	3861.2	3544.1	3184.7	2855.2	2580.3	2381.4	2255.8	2191.1	2167.5	2178.7
30°	4293.9	4083.8	3627.4	3093.9	2672.4	2371.4	2187.4	2105.3	2066.8	2036.9	2046.9
32.5°	4507.8	4240.5	3646.1	2941.0	2474.6	2181.2	2055.6	1994.6	1952.4	1923.8	1930.0
35°	4660.8	4373.5	3637.3	2753.2	2268.2	2024.5	1951.1	1901.4	1833.0	1770.8	1759.6
37.5°	4866.0	4540.2	3573.9	2548.0	2064.3	1918.8	1866.5	1774.5	1676.3	1593.0	1589.2
40°	5180.6	4735.4	3438.4	2306.8	1890.2	1840.4	1777.0	1657.6	1551.9	1484.8	1479.8
42.5°	5505.1	4915.7	3254.3	2053.1	1747.2	1758.4	1681.3	1563.1	1498.5	1454.9	1450.0
45°	5901.8	5110.9	3055.4	1833.0	1641.5	1681.3	1597.9	1529.6	1491.0	1462.4	1454.9
47.5°	6330.8	5311.1	2831.5	1635.3	1551.9	1610.4	1563.1	1532.0	1510.9	1491.0	1482.3
50°	6793.4	5535.0	2621.4	1476.1	1471.1	1537.0	1559.4	1548.2	1535.8	1529.6	1522.1
52.5°	7300.8	5763.8	2444.8	1364.2	1400.2	1484.8	1560.6	1569.3	1569.3	1565.6	1560.6
55°	7644.0	5923.0	2265.7	1273.4	1328.1	1442.5	1558.2	1591.7	1604.2	1599.2	1594.2
57.5°	7897.7	6010.0	2040.6	1195.0	1267.2	1401.5	1544.5	1594.2	1606.7	1612.9	1610.4
60°	7949.9	5929.2	1745.9	1113.0	1201.3	1341.8	1494.7	1556.9	1573.1	1611.6	1615.4
62.5°	7714.9	5680.5	1452.5	1032.1	1120.4	1251.0	1427.6	1514.6	1547.0	1606.7	1612.9
64°	7426.4	5401.9	1289.5	981.2	1068.2	1200.0	1394.0	1503.4	1545.7	1625.3	1630.3
65°	7215.0	5199.2	1187.6	948.8	1034.6	1166.4	1375.4	1507.2	1556.9	1653.9	1661.4
67.5°	6436.5	4501.6	982.4	873.0	955.0	1109.2	1379.1	1538.3	1554.4	1665.1	1663.9
70°	5326.1	3583.9	823.2	803.3	877.9	1063.2	1364.2	1488.5	1489.8	1563.1	1545.7
72.5°	3988.0	2648.7	713.8	731.2	792.1	953.8	1288.3	1421.4	1400.2	1410.2	1392.8
75°	2739.5	1752.1	614.3	654.1	702.6	843.1	1181.4	1290.8	1257.2	1244.8	1232.3
77.5°	1462.4	968.7	511.1	578.2	610.6	728.7	1030.9	1136.6	1101.8	1053.3	1037.1
80°	591.9	456.4	411.6	478.8	497.4	586.9	858.0	923.9	897.8	813.3	785.9
82.5°	297.2	273.6	323.3	376.8	378.0	419.1	637.9	700.1	641.7	538.5	514.8
85°	155.4	160.4	222.6	264.9	233.8	226.3	383.0	424.0	389.2	338.2	304.7
87.5°	56.0	64.7	116.9	115.6	82.1	43.5	84.6	41.0	22.4	13.7	17.4
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)