

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: P453841

Luminaire Tested: **GALN-SA4D-827-U-T4FT**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453841
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-28)
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-T4FT
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 2700K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22447 lumens
Efficiency: N/A
Efficacy: 91.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U0 - G4

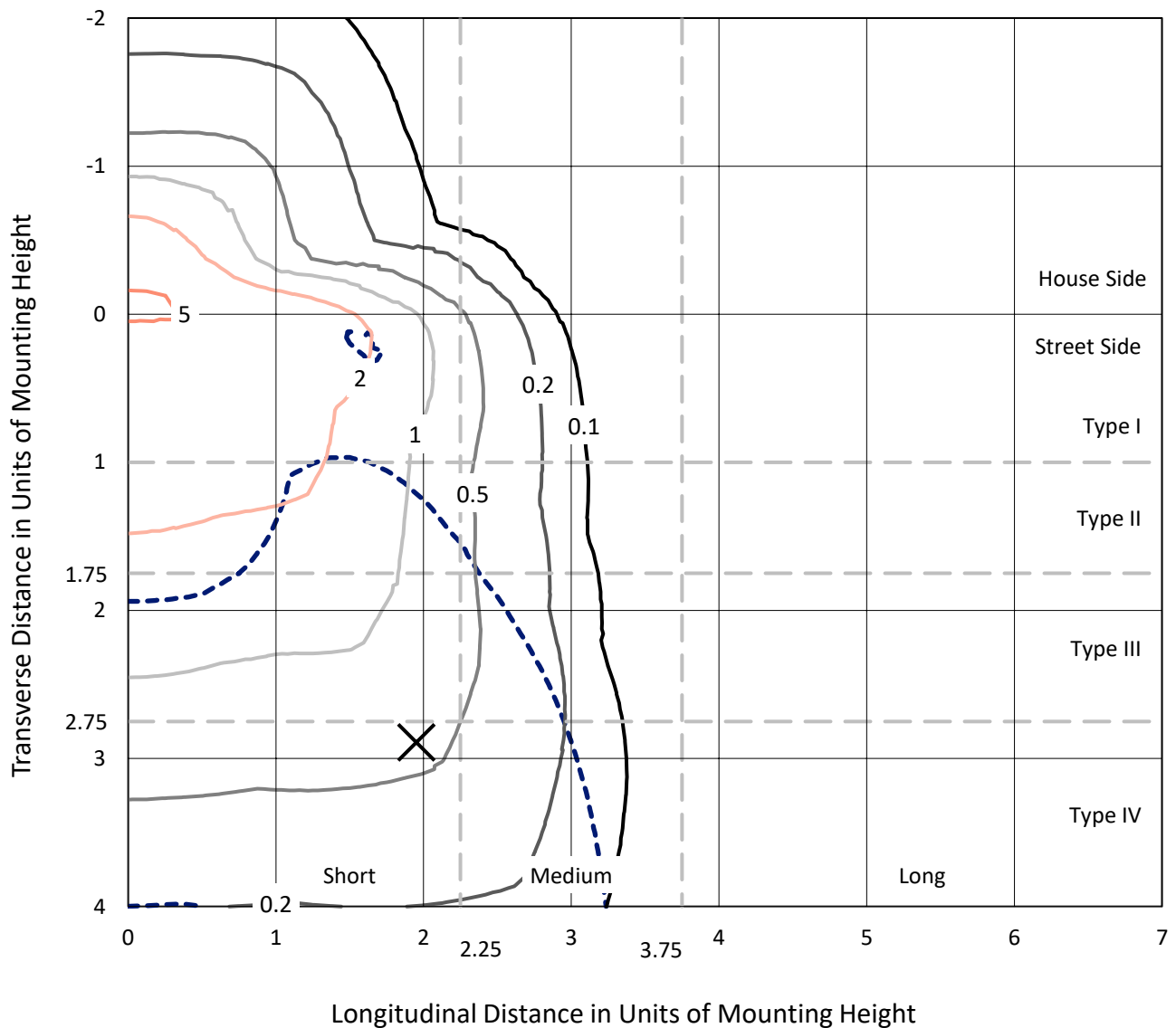
Input Watts (W): 245
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

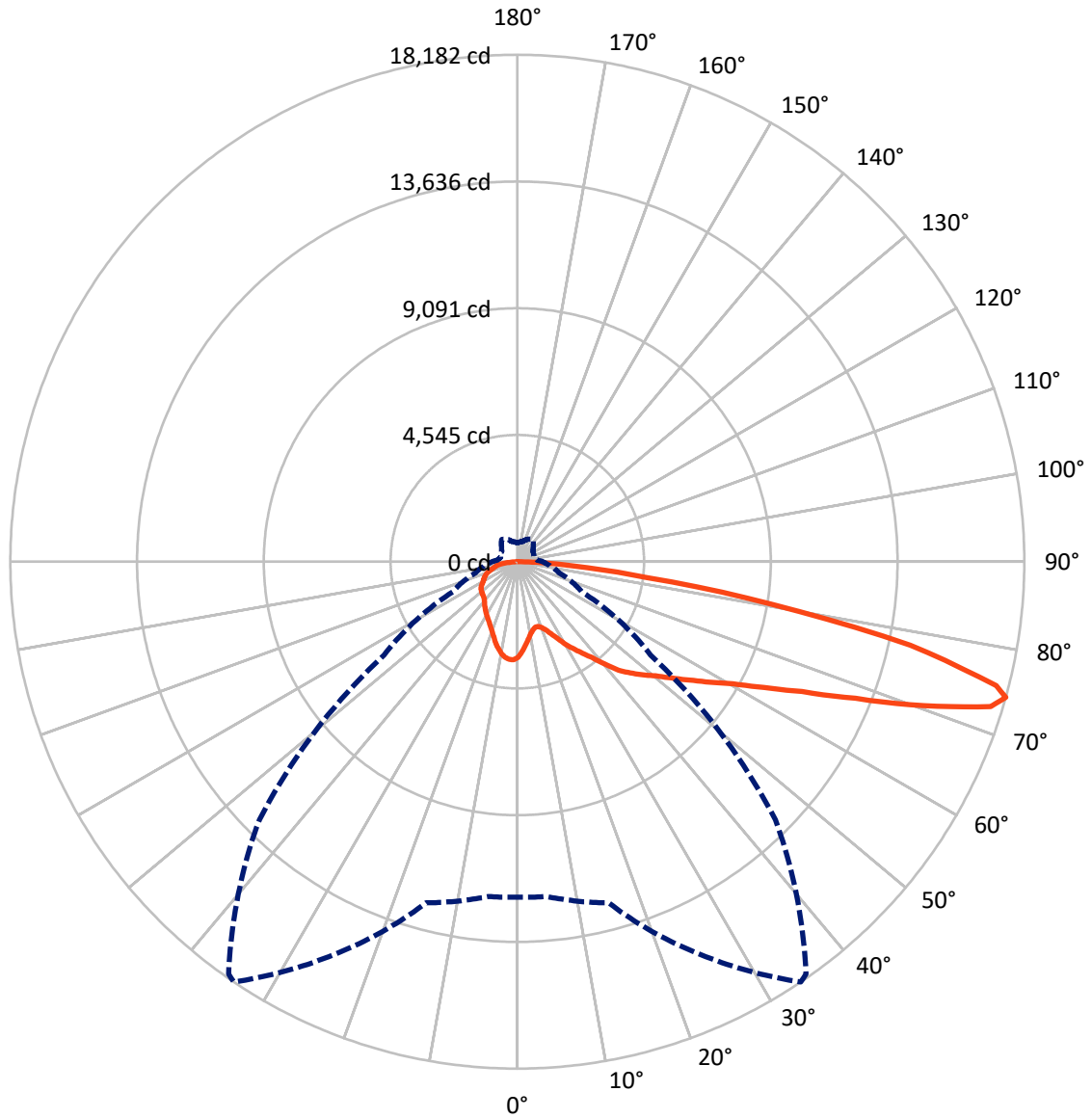
× Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 34-Deg Lateral - - - Horizontal Cone Through 74-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4776.9	0.0	4776.9
	% Fixture	21.3	0.0	21.3
Street Side	Lumens	17670.1	0.0	17670.1
	% Fixture	78.7	0.0	78.7
Total	Lumens	22447.0	0.0	22447.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	311.7	1.4
10°-20°	853.2	3.8
20°-30°	1406.8	6.3
30°-40°	2107.2	9.4
40°-50°	3063.3	13.6
50°-60°	4278.7	19.1
60°-70°	5356.6	23.9
70°-80°	4429.5	19.7
80°-90°	640.0	2.9
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°	22447.0	100.0
0°-180°	22447.0	100.0

Coefficient of Utilization



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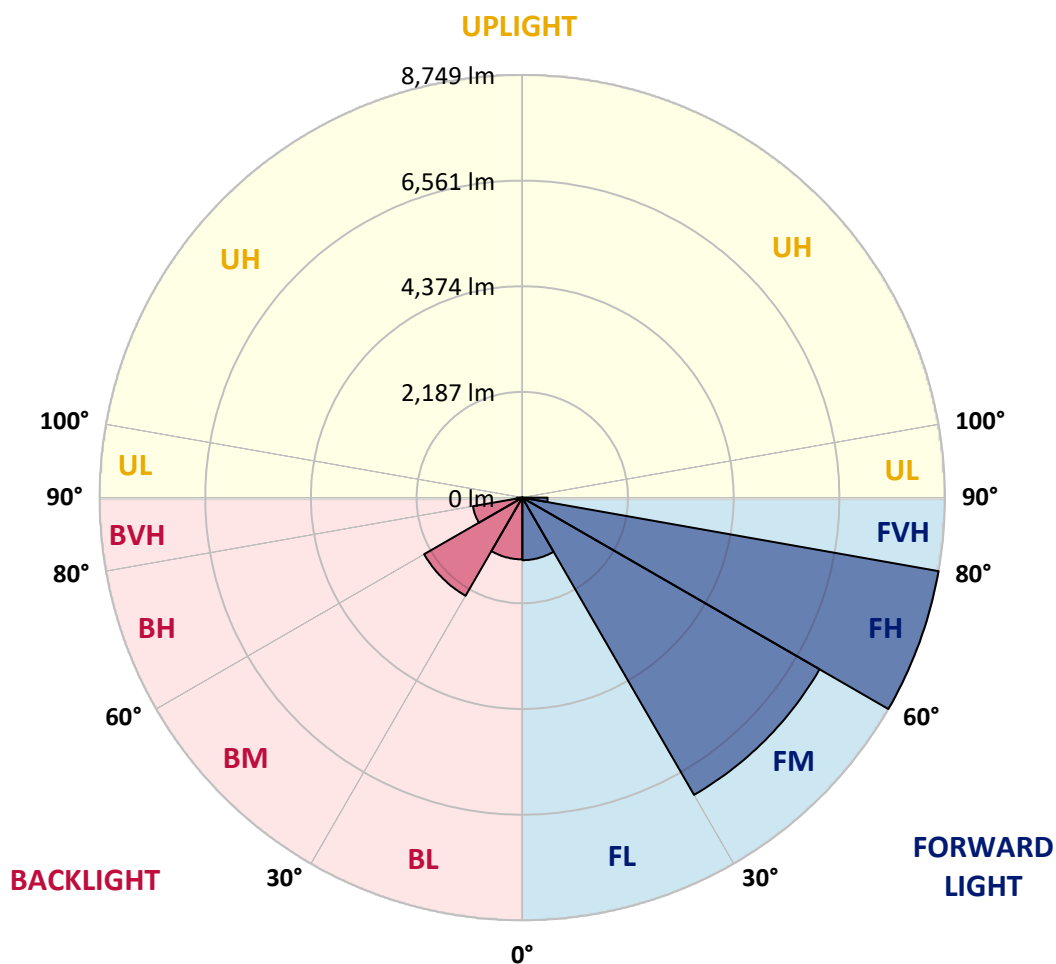
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1294.0	5.8			
FM	(30°-60°)	7103.2	31.6			
FH	(60°-80°)	8748.7	39.0			G4/12000
FVH	(80°-90°)	524.3	2.3			G4/750
BL	(0°-30°)	1277.7	5.7	B3/2500		
BM	(30°-60°)	2345.9	10.5	B2/2500		
BH	(60°-80°)	1037.5	4.6	B3/2500		G3/2500
BVH	(80°-90°)	115.7	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 IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	3427.2	3427.2	3427.2	3427.2	3427.2	3427.2	3427.2	3427.2	3427.2	3427.2	3427.2
2.5°	3167.3	3183.5	3192.2	3223.3	3230.7	3240.7	3266.8	3301.6	3346.4	3386.2	3421.0
5°	2903.7	2928.6	2943.5	2970.8	3024.3	3029.3	3098.9	3178.5	3269.3	3353.8	3423.5
7.5°	2653.7	2681.1	2693.5	2743.3	2814.1	2825.3	2927.3	3052.9	3204.6	3332.7	3439.6
10°	2466.0	2479.6	2507.0	2544.3	2628.9	2636.3	2769.4	2937.3	3133.7	3322.8	3467.0
12.5°	2364.0	2371.4	2377.7	2417.5	2500.8	2512.0	2651.2	2841.5	3077.8	3330.2	3511.8
15°	2378.9	2381.4	2354.0	2361.5	2428.6	2444.8	2582.8	2778.1	3043.0	3348.9	3578.9
17.5°	2504.5	2495.8	2428.6	2393.8	2441.1	2448.5	2569.2	2753.2	3026.8	3383.7	3648.6
20°	2702.2	2689.8	2574.1	2497.0	2524.4	2530.6	2613.9	2771.9	3043.0	3440.9	3756.8
22.5°	2948.4	2943.5	2768.1	2674.9	2673.6	2673.6	2717.1	2839.0	3091.5	3519.2	3869.9
25°	3292.9	3266.8	3038.0	2917.4	2883.8	2881.3	2876.3	2949.7	3153.6	3602.6	4004.2
27.5°	3646.1	3601.3	3397.4	3212.1	3140.0	3131.2	3098.9	3106.4	3233.2	3697.1	4157.2
30°	3963.2	3934.6	3743.1	3537.9	3452.1	3432.2	3342.7	3301.6	3366.3	3867.4	4400.9
32.5°	4205.7	4188.3	4039.0	3852.5	3725.7	3721.9	3591.4	3557.8	3574.0	4073.9	4679.5
35°	4402.2	4408.4	4332.5	4170.9	4025.4	4004.2	3917.2	3874.9	3827.6	4372.3	5030.1
37.5°	4670.8	4684.4	4679.5	4540.2	4362.4	4367.3	4347.4	4277.8	4152.2	4705.6	5419.4
40°	4966.7	4976.7	4975.4	4922.0	4828.7	4833.7	4826.2	4746.6	4558.8	5129.6	5852.1
42.5°	5375.8	5328.6	5205.5	5259.0	5313.7	5337.3	5388.3	5312.4	5055.0	5582.3	6258.8
45°	5833.5	5743.9	5465.4	5490.3	5693.0	5737.7	6018.8	5914.3	5593.5	6102.1	6737.5
47.5°	6122.0	6033.7	5798.7	5793.7	6062.3	6105.8	6603.2	6564.7	6083.4	6662.9	7322.0
50°	6379.4	6367.0	6102.1	6165.5	6427.9	6492.6	7239.9	7203.9	6572.1	7324.5	7958.7
52.5°	6761.2	6660.4	6449.0	6579.6	6926.6	7011.1	7871.6	7765.9	7021.1	7909.0	8576.7
55°	6932.8	6909.1	6896.7	7009.9	7486.1	7547.1	8486.0	8243.5	7404.1	8403.9	9046.8
57.5°	7391.6	7348.1	7471.2	7548.3	8145.2	8238.5	9127.6	8742.1	7739.8	8796.8	9275.6
60°	7986.1	7962.4	8075.6	8214.9	8881.4	9023.2	9858.8	9167.4	8009.7	8994.6	9150.0
62.5°	8873.9	8871.5	8850.3	9148.8	9924.7	10055.3	10698.2	9581.5	8052.0	8846.6	8500.9
65°	10147.3	10102.6	9918.5	10244.3	11223.0	11376.0	11572.4	9812.8	7797.0	8086.8	7157.9
67.5°	11479.2	11476.7	11327.5	11750.3	13087.1	13245.0	12665.5	9761.8	7089.5	6551.0	5083.6
70°	12583.4	12530.0	12720.2	13846.9	15468.5	15651.3	13621.8	9161.2	5646.9	4326.3	3020.6
72.5°	12848.3	12850.8	13246.3	15463.5	17755.4	17784.0	13966.3	7425.2	3779.1	2386.4	1510.9
74°	12032.6	12053.7	12666.8	15544.3	18181.9	18052.6	13085.8	5836.0	2555.5	1558.2	1089.3
75°	10983.0	10849.9	11736.6	15005.9	17739.2	17599.9	12054.9	4683.2	1949.9	1244.8	953.8
77.5°	5872.0	6007.6	7375.5	11198.1	14411.5	14251.0	8173.8	2245.8	1053.3	866.8	686.4
80°	2090.4	2305.5	3240.7	5859.6	9239.5	9289.3	3901.0	1029.7	741.2	639.2	485.0
82.5°	853.1	876.7	1391.5	2600.3	4691.9	4736.7	1593.0	611.8	529.8	440.2	289.7
85°	333.3	343.2	615.6	1168.9	2002.1	2132.7	550.9	323.3	325.8	252.4	148.0
87.5°	111.9	126.8	252.4	389.2	680.2	666.5	160.4	95.8	116.9	109.4	46.0
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°	3427.2	3427.2	3427.2	3427.2	3427.2	3427.2	3427.2	3427.2	3427.2	3427.2	3427.2
2.5°	3438.4	3462.0	3478.2	3495.6	3511.8	3516.7	3513.0	3524.2	3525.5	3526.7	3527.9
5°	3458.3	3490.6	3521.7	3539.1	3546.6	3540.4	3519.2	3508.0	3498.1	3490.6	3493.1
7.5°	3485.7	3531.7	3560.3	3567.7	3547.8	3519.2	3467.0	3426.0	3399.9	3382.4	3381.2
10°	3527.9	3572.7	3596.3	3575.2	3520.5	3450.8	3368.8	3291.7	3233.2	3215.8	3214.6
12.5°	3581.4	3632.4	3631.2	3569.0	3473.2	3348.9	3215.8	3126.3	3046.7	3006.9	3023.1
15°	3651.1	3689.6	3653.5	3541.6	3389.9	3219.5	3055.4	2933.5	2844.0	2801.7	2804.2
17.5°	3731.9	3765.5	3669.7	3493.1	3273.0	3054.1	2863.9	2748.2	2677.4	2646.3	2643.8
20°	3832.6	3842.6	3669.7	3408.6	3122.5	2861.4	2679.8	2599.0	2559.2	2543.1	2548.0
22.5°	3940.8	3920.9	3649.8	3289.2	2924.8	2659.9	2538.1	2502.0	2482.1	2479.6	2482.1
25°	4062.7	4006.7	3608.8	3127.5	2718.4	2485.8	2415.0	2421.2	2424.9	2424.9	2433.6
27.5°	4211.9	4100.0	3540.4	2923.6	2477.1	2324.2	2304.3	2347.8	2367.7	2371.4	2377.7
30°	4408.4	4201.9	3427.2	2668.6	2272.0	2178.7	2213.5	2272.0	2294.3	2308.0	2305.5
32.5°	4642.2	4313.9	3274.3	2413.7	2106.6	2076.7	2119.0	2178.7	2203.6	2211.0	2201.1
35°	4917.0	4440.7	3072.8	2175.0	1962.3	1979.7	2029.5	2048.1	2070.5	2070.5	2075.5
37.5°	5212.9	4542.7	2826.6	1956.1	1850.4	1913.8	1949.9	1932.5	1922.5	1910.1	1916.3
40°	5513.9	4618.5	2507.0	1739.7	1738.5	1845.4	1855.4	1805.6	1765.8	1753.4	1747.2
42.5°	5776.3	4665.8	2218.5	1571.8	1632.8	1778.3	1785.7	1706.1	1642.7	1605.4	1593.0
45°	6085.9	4720.5	1936.2	1432.6	1534.5	1724.8	1743.5	1636.5	1543.2	1464.9	1445.0
47.5°	6510.0	4844.9	1713.6	1324.4	1463.7	1691.2	1717.3	1579.3	1456.2	1354.2	1338.1
50°	6988.7	5015.2	1540.8	1251.0	1408.9	1661.4	1693.7	1520.9	1375.4	1262.2	1249.8
52.5°	7427.7	5107.2	1391.5	1185.1	1355.5	1606.7	1662.6	1478.6	1295.8	1170.2	1159.0
55°	7667.7	4958.0	1244.8	1120.4	1282.1	1535.8	1619.1	1420.1	1218.7	1121.7	1105.5
57.5°	7700.0	4649.6	1111.7	1050.8	1205.0	1448.7	1538.3	1349.2	1168.9	1088.1	1074.4
60°	7450.1	4189.5	1008.5	993.6	1126.7	1350.5	1447.5	1287.1	1117.9	1050.8	1037.1
62.5°	6828.3	3689.6	936.4	941.4	1047.1	1247.3	1380.3	1227.4	1069.4	1009.8	997.3
65°	5758.9	3045.4	866.8	887.9	976.2	1166.4	1319.4	1177.6	1021.0	978.7	967.5
67.5°	4000.5	2198.6	809.5	831.9	909.0	1084.4	1248.5	1124.2	966.2	943.9	926.4
70°	2214.8	1353.0	742.4	768.5	839.4	992.3	1168.9	1043.3	886.6	876.7	851.8
72.5°	1164.0	861.8	666.5	695.1	744.9	874.2	1047.1	955.0	808.3	766.0	733.7
74°	909.0	706.3	615.6	645.4	679.0	804.6	974.9	891.6	752.3	702.6	677.7
75°	792.1	629.2	572.0	610.6	640.4	757.3	919.0	846.9	721.3	674.0	651.6
77.5°	559.6	471.3	467.6	513.6	529.8	664.1	828.2	771.0	642.9	593.2	572.0
80°	393.0	353.2	370.6	399.2	421.6	587.0	768.5	666.5	527.3	468.8	461.4
82.5°	256.2	231.3	264.9	291.0	298.5	432.8	620.5	506.1	384.3	312.1	289.7
85°	118.1	115.6	151.7	148.0	146.7	211.4	368.1	296.0	221.4	165.4	155.4
87.5°	29.8	28.6	37.3	31.1	37.3	32.3	33.6	8.7	1.2	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)