

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: P453870

Luminaire Tested: **GALN-SA4D-830-U-T4FT**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453870
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-830-U-T4FT
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 3000K, 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: 24265 lumens
Efficiency: N/A
Efficacy: 99.0 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

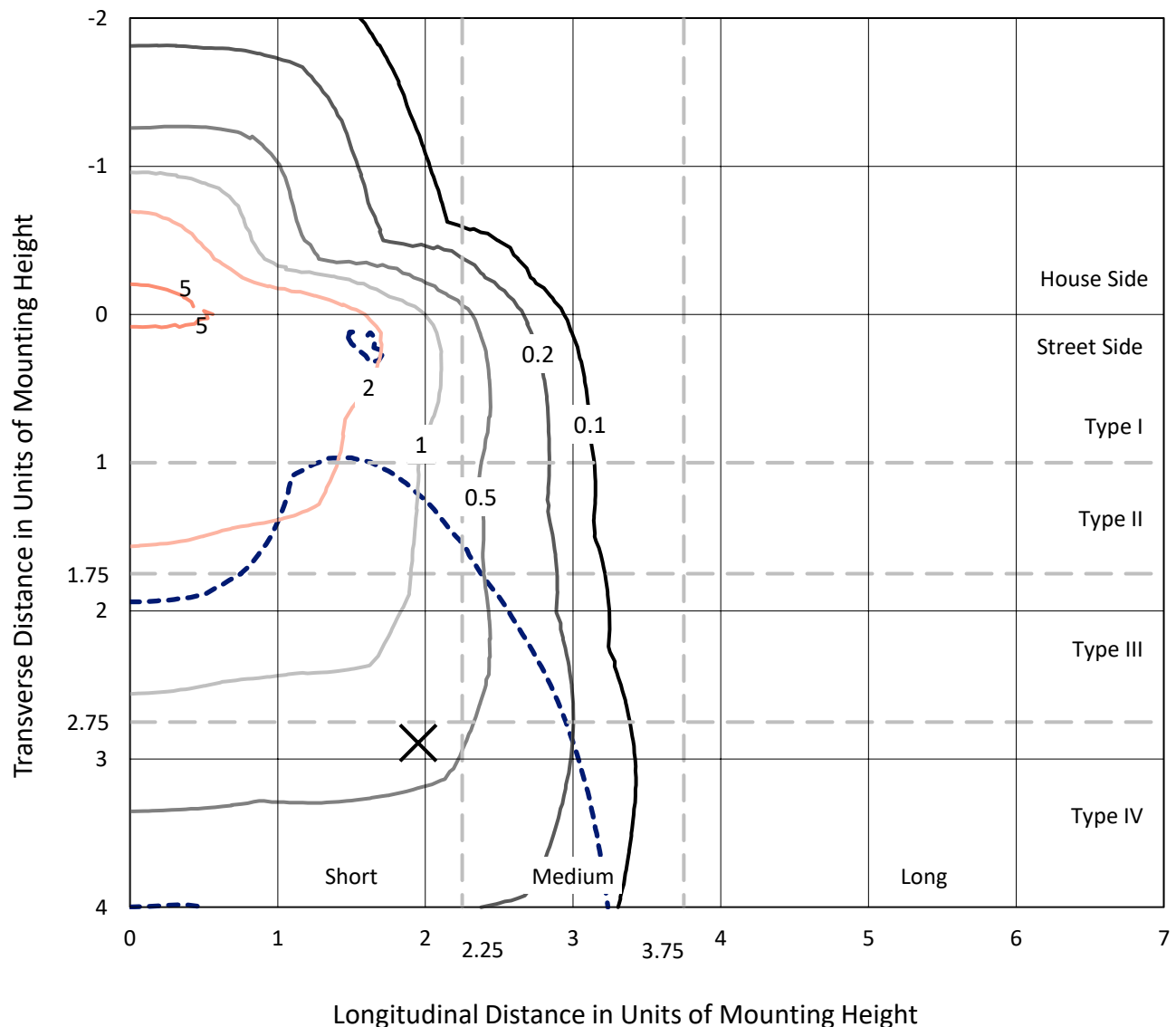


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

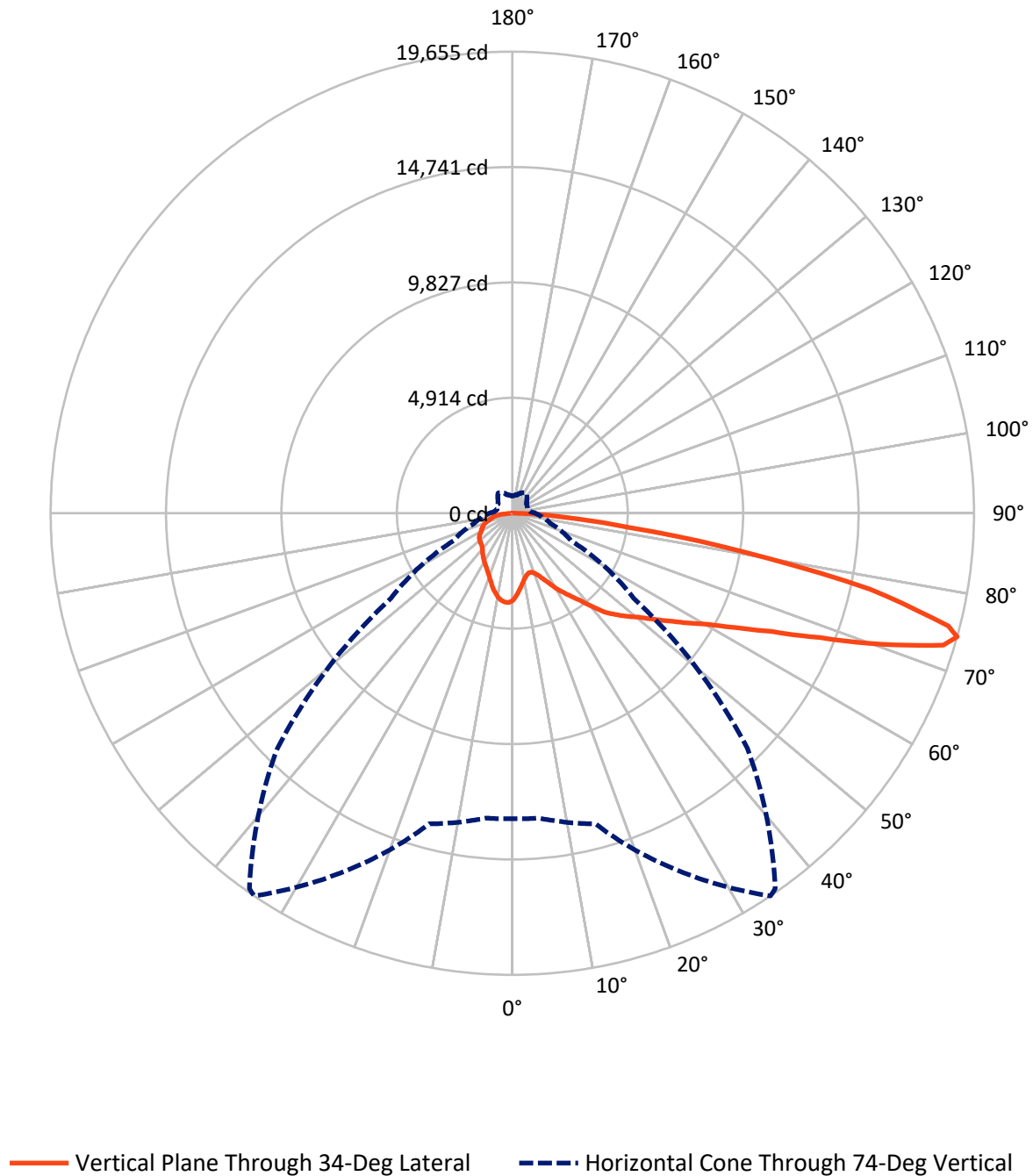


Based on 25 foot mounting height. Maximum calculated value = 5.9 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5163.8	0.0	5163.8
	% Fixture	21.3	0.0	21.3
Street Side	Lumens	19101.2	0.0	19101.2
	% Fixture	78.7	0.0	78.7
Total	Lumens	24265.0	0.0	24265.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	336.9	1.4
10°-20°	922.3	3.8
20°-30°	1520.7	6.3
30°-40°	2277.8	9.4
40°-50°	3311.4	13.6
50°-60°	4625.2	19.1
60°-70°	5790.5	23.9
70°-80°	4788.3	19.7
80°-90°	691.9	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°	24265.0	100.0
0°-180°	24265.0	100.0

Coefficient of Utilization



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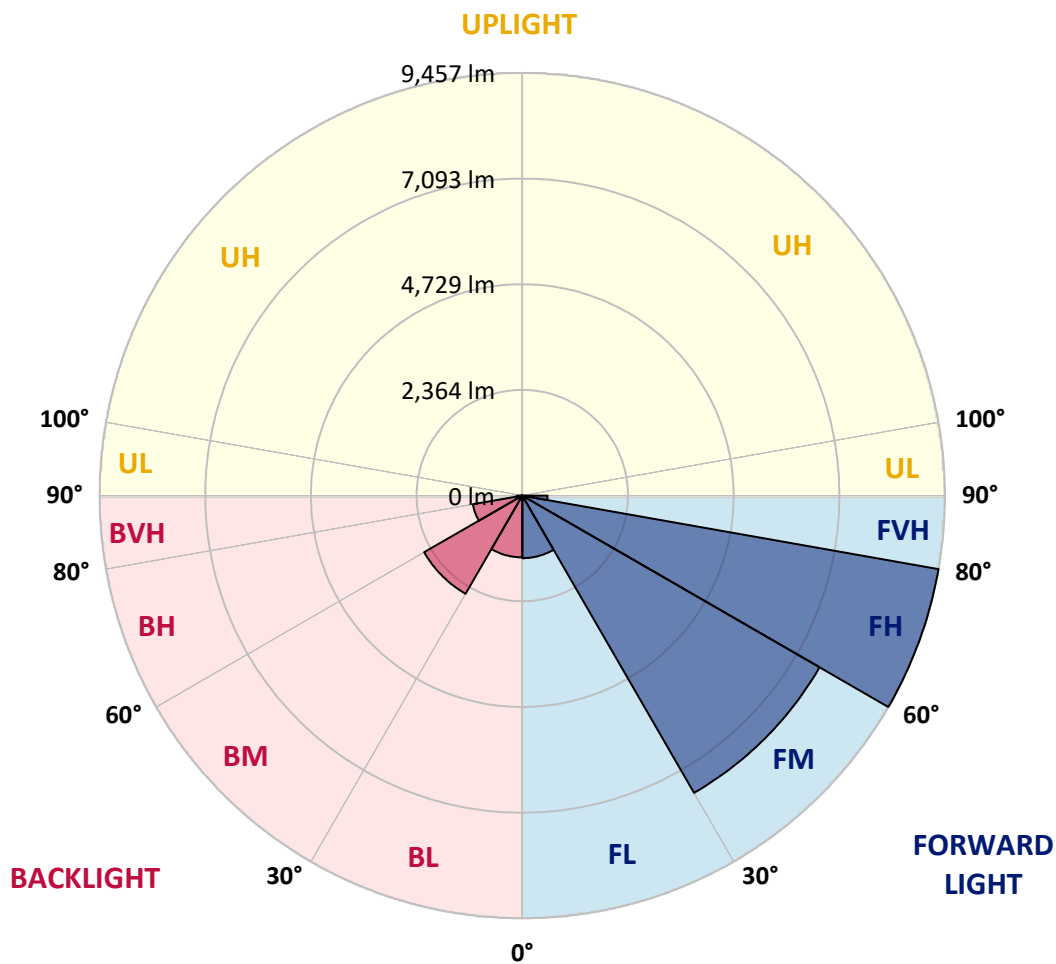
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1398.8	5.8			
FM	(30°-60°)	7678.4	31.6			
FH	(60°-80°)	9457.2	39.0			G4/12000
FVH	(80°-90°)	566.8	2.3			G4/750
BL	(0°-30°)	1381.2	5.7	B3/2500		
BM	(30°-60°)	2535.9	10.5	B3/5000		
BH	(60°-80°)	1121.5	4.6	B3/2500		G3/2500
BVH	(80°-90°)	125.1	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°	3704.8	3704.8	3704.8	3704.8	3704.8	3704.8	3704.8	3704.8	3704.8	3704.8	3704.8
2.5°	3423.8	3441.3	3450.7	3484.3	3492.4	3503.1	3531.4	3569.0	3617.4	3660.4	3698.1
5°	3138.9	3165.7	3181.9	3211.4	3269.2	3274.6	3349.9	3435.9	3534.1	3625.5	3700.8
7.5°	2868.7	2898.2	2911.7	2965.4	3042.1	3054.2	3164.4	3300.2	3464.2	3602.6	3718.2
10°	2665.7	2680.5	2710.0	2750.4	2841.8	2849.8	2993.7	3175.1	3387.5	3591.9	3747.8
12.5°	2555.4	2563.5	2570.2	2613.2	2703.3	2715.4	2866.0	3071.6	3327.0	3599.9	3796.2
15°	2571.6	2574.3	2544.7	2552.8	2625.3	2642.8	2792.0	3003.1	3289.4	3620.1	3868.8
17.5°	2707.3	2697.9	2625.3	2587.7	2638.8	2646.9	2777.2	2976.2	3271.9	3657.7	3944.1
20°	2921.1	2907.6	2782.6	2699.3	2728.9	2735.6	2825.6	2996.4	3289.4	3719.6	4061.0
22.5°	3187.2	3181.9	2992.3	2891.5	2890.2	2890.2	2937.2	3068.9	3341.8	3804.3	4183.3
25°	3559.6	3531.4	3284.0	3153.6	3117.3	3114.7	3109.3	3188.6	3409.0	3894.3	4328.5
27.5°	3941.4	3893.0	3672.5	3472.2	3394.3	3384.9	3349.9	3358.0	3495.1	3996.5	4493.9
30°	4284.2	4253.2	4046.2	3824.4	3731.7	3710.2	3613.4	3569.0	3638.9	4180.7	4757.3
32.5°	4546.3	4527.5	4366.2	4164.5	4027.4	4023.4	3882.2	3845.9	3863.4	4403.8	5058.5
35°	4758.7	4765.4	4683.4	4508.7	4351.4	4328.5	4234.4	4188.7	4137.6	4726.4	5437.5
37.5°	5049.0	5063.8	5058.5	4907.9	4715.7	4721.0	4699.5	4624.3	4488.5	5086.7	5858.3
40°	5369.0	5379.7	5378.4	5320.6	5219.8	5225.1	5217.1	5131.0	4928.1	5545.1	6326.1
42.5°	5811.2	5760.2	5627.1	5684.9	5744.0	5769.6	5824.7	5742.7	5464.4	6034.4	6765.7
45°	6305.9	6209.1	5908.0	5934.9	6154.0	6202.4	6506.2	6393.3	6046.5	6596.3	7283.2
47.5°	6617.8	6522.4	6268.3	6262.9	6553.3	6600.3	7138.0	7096.4	6576.1	7202.6	7915.0
50°	6896.1	6882.6	6596.3	6664.9	6948.5	7018.4	7826.3	7787.3	7104.4	7917.7	8603.3
52.5°	7308.8	7199.9	6971.3	7112.5	7487.5	7578.9	8509.2	8394.9	7589.7	8549.5	9271.4
55°	7494.3	7468.7	7455.3	7577.6	8092.5	8158.3	9173.2	8911.1	8003.7	9084.5	9779.5
57.5°	7990.3	7943.2	8076.3	8159.7	8804.9	8905.7	9866.9	9450.2	8366.7	9509.3	10026.8
60°	8632.8	8607.3	8729.6	8880.2	9600.7	9754.0	10657.3	9909.9	8658.4	9723.0	9891.1
62.5°	9592.7	9590.0	9567.1	9889.7	10728.6	10869.7	11564.7	10357.5	8704.1	9563.1	9189.4
65°	10969.2	10920.8	10721.8	11074.0	12132.0	12297.3	12509.7	10607.6	8428.5	8741.7	7737.6
67.5°	12408.9	12406.2	12244.9	12701.9	14147.0	14317.7	13691.3	10552.5	7663.6	7081.6	5495.3
70°	13602.6	13544.8	13750.5	14968.4	16721.3	16918.9	14725.0	9903.2	6104.3	4676.7	3265.2
72.5°	13888.9	13891.6	14319.1	16715.9	19193.4	19224.3	15097.4	8026.6	4085.2	2579.6	1633.3
74°	13007.1	13029.9	13692.7	16803.3	19654.5	19514.6	14145.7	6308.6	2762.5	1684.4	1177.6
75°	11872.5	11728.7	12687.1	16221.2	19175.9	19025.3	13031.3	5062.5	2107.8	1345.6	1031.0
77.5°	6347.6	6494.1	7972.8	12105.1	15578.7	15405.2	8835.8	2427.7	1138.6	937.0	742.0
80°	2259.7	2492.3	3503.1	6334.2	9987.9	10041.6	4216.9	1113.0	801.2	691.0	524.3
82.5°	922.2	947.7	1504.2	2810.9	5071.9	5120.3	1722.0	661.4	572.7	475.9	313.2
85°	360.3	371.0	665.4	1263.6	2164.3	2305.4	595.5	349.5	352.2	272.9	160.0
87.5°	121.0	137.1	272.9	420.8	735.3	720.5	173.4	103.5	126.4	118.3	49.7
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°	3704.8	3704.8	3704.8	3704.8	3704.8	3704.8	3704.8	3704.8	3704.8	3704.8	3704.8
2.5°	3716.9	3742.4	3759.9	3778.7	3796.2	3801.6	3797.5	3809.6	3811.0	3812.3	3813.7
5°	3738.4	3773.3	3806.9	3825.8	3833.8	3827.1	3804.3	3792.2	3781.4	3773.3	3776.0
7.5°	3768.0	3817.7	3848.6	3856.7	3835.2	3804.3	3747.8	3703.4	3675.2	3656.4	3655.0
10°	3813.7	3862.1	3887.6	3864.8	3805.6	3730.3	3641.6	3558.3	3495.1	3476.3	3474.9
12.5°	3871.5	3926.6	3925.2	3858.0	3754.5	3620.1	3476.3	3379.5	3293.4	3250.4	3267.9
15°	3946.8	3988.4	3949.4	3828.5	3664.5	3480.3	3302.9	3171.1	3074.3	3028.6	3031.3
17.5°	4034.1	4070.4	3966.9	3776.0	3538.1	3301.5	3095.8	2970.8	2894.2	2860.6	2857.9
20°	4143.0	4153.8	3966.9	3684.6	3375.4	3093.1	2896.9	2809.5	2766.5	2749.0	2754.4
22.5°	4260.0	4238.5	3945.4	3555.6	3161.7	2875.4	2743.6	2704.7	2683.1	2680.5	2683.1
25°	4391.7	4331.2	3901.0	3380.8	2938.6	2687.2	2610.6	2617.3	2621.3	2621.3	2630.7
27.5°	4553.0	4432.0	3827.1	3160.4	2677.8	2512.4	2490.9	2538.0	2559.5	2563.5	2570.2
30°	4765.4	4542.3	3704.8	2884.8	2456.0	2355.1	2392.8	2456.0	2480.2	2494.9	2492.3
32.5°	5018.1	4663.2	3539.4	2609.2	2277.2	2244.9	2290.6	2355.1	2382.0	2390.1	2379.3
35°	5315.2	4800.4	3321.7	2351.1	2121.2	2140.1	2193.8	2214.0	2238.2	2238.2	2243.6
37.5°	5635.1	4910.6	3055.5	2114.5	2000.3	2068.8	2107.8	2089.0	2078.2	2064.8	2071.5
40°	5960.5	4992.6	2710.0	1880.6	1879.3	1994.9	2005.6	1951.9	1908.9	1895.4	1888.7
42.5°	6244.1	5043.7	2398.2	1699.1	1765.0	1922.3	1930.4	1844.3	1775.8	1735.4	1722.0
45°	6578.8	5102.8	2093.0	1548.6	1658.8	1864.5	1884.7	1769.0	1668.2	1583.5	1562.0
47.5°	7037.2	5237.2	1852.4	1431.6	1582.2	1828.2	1856.4	1707.2	1574.1	1463.9	1446.4
50°	7554.8	5421.4	1665.5	1352.3	1523.0	1795.9	1830.9	1644.0	1486.8	1364.4	1351.0
52.5°	8029.3	5520.9	1504.2	1281.1	1465.2	1736.8	1797.3	1598.3	1400.7	1265.0	1252.9
55°	8288.7	5359.6	1345.6	1211.2	1385.9	1660.2	1750.2	1535.1	1317.4	1212.5	1195.0
57.5°	8323.7	5026.2	1201.8	1135.9	1302.6	1566.1	1662.9	1458.5	1263.6	1176.2	1161.4
60°	8053.5	4528.8	1090.2	1074.1	1217.9	1459.9	1564.7	1391.3	1208.5	1135.9	1121.1
62.5°	7381.3	3988.4	1012.2	1017.6	1131.9	1348.3	1492.1	1326.8	1156.1	1091.5	1078.1
65°	6225.3	3292.1	937.0	959.8	1055.2	1260.9	1426.3	1273.0	1103.6	1057.9	1045.8
67.5°	4324.5	2376.7	875.1	899.3	982.7	1172.2	1349.6	1215.2	1044.5	1020.3	1001.5
70°	2394.1	1462.6	802.5	830.8	907.4	1072.7	1263.6	1127.8	958.5	947.7	920.8
72.5°	1258.2	931.6	720.5	751.4	805.2	945.0	1131.9	1032.4	873.8	828.1	793.1
74°	982.7	763.5	665.4	697.7	734.0	869.7	1053.9	963.8	813.3	759.5	732.6
75°	856.3	680.2	618.4	660.0	692.3	818.7	993.4	915.4	779.7	728.6	704.4
77.5°	604.9	509.5	505.4	555.2	572.7	717.8	895.3	833.4	695.0	641.2	618.4
80°	424.8	381.8	400.6	431.5	455.7	634.5	830.8	720.5	570.0	506.8	498.7
82.5°	276.9	250.0	286.3	314.6	322.6	467.8	670.8	547.1	415.4	337.4	313.2
85°	127.7	125.0	164.0	160.0	158.6	228.5	397.9	319.9	239.3	178.8	168.0
87.5°	32.3	30.9	40.3	33.6	40.3	35.0	36.3	9.4	1.3	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)