

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: P453864

Luminaire Tested: **GALN-SA4D-830-U-T2R**

Issue Date: 1/4/2021

Test Information

Test Method: LM-79-08
Report Number: P453864
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-6)
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-T2R
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(4) 80 CRI, 3000K, 1200mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24784 lumens
Efficiency: N/A
Efficacy: 101.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

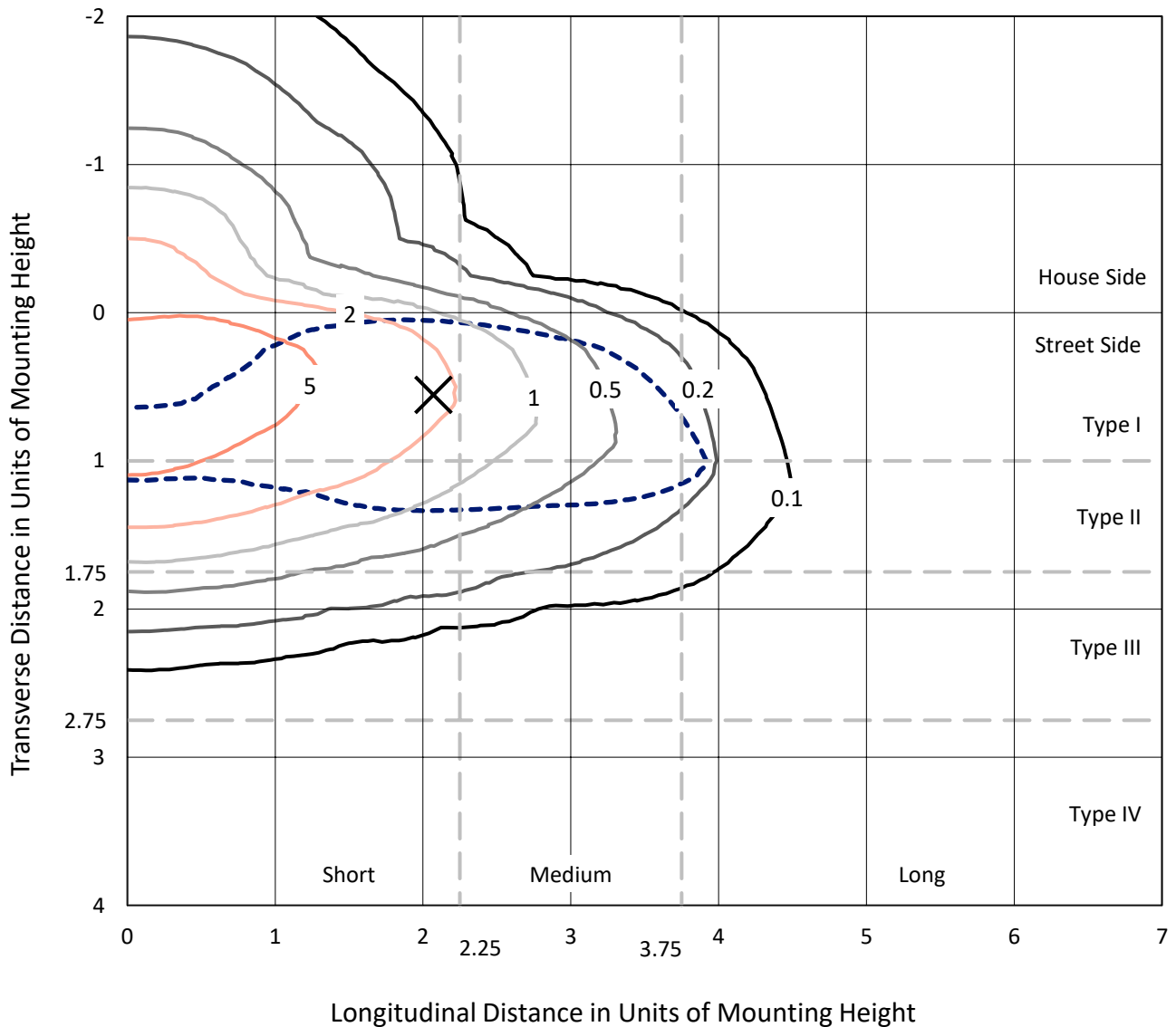
Input Watts (W): 245
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

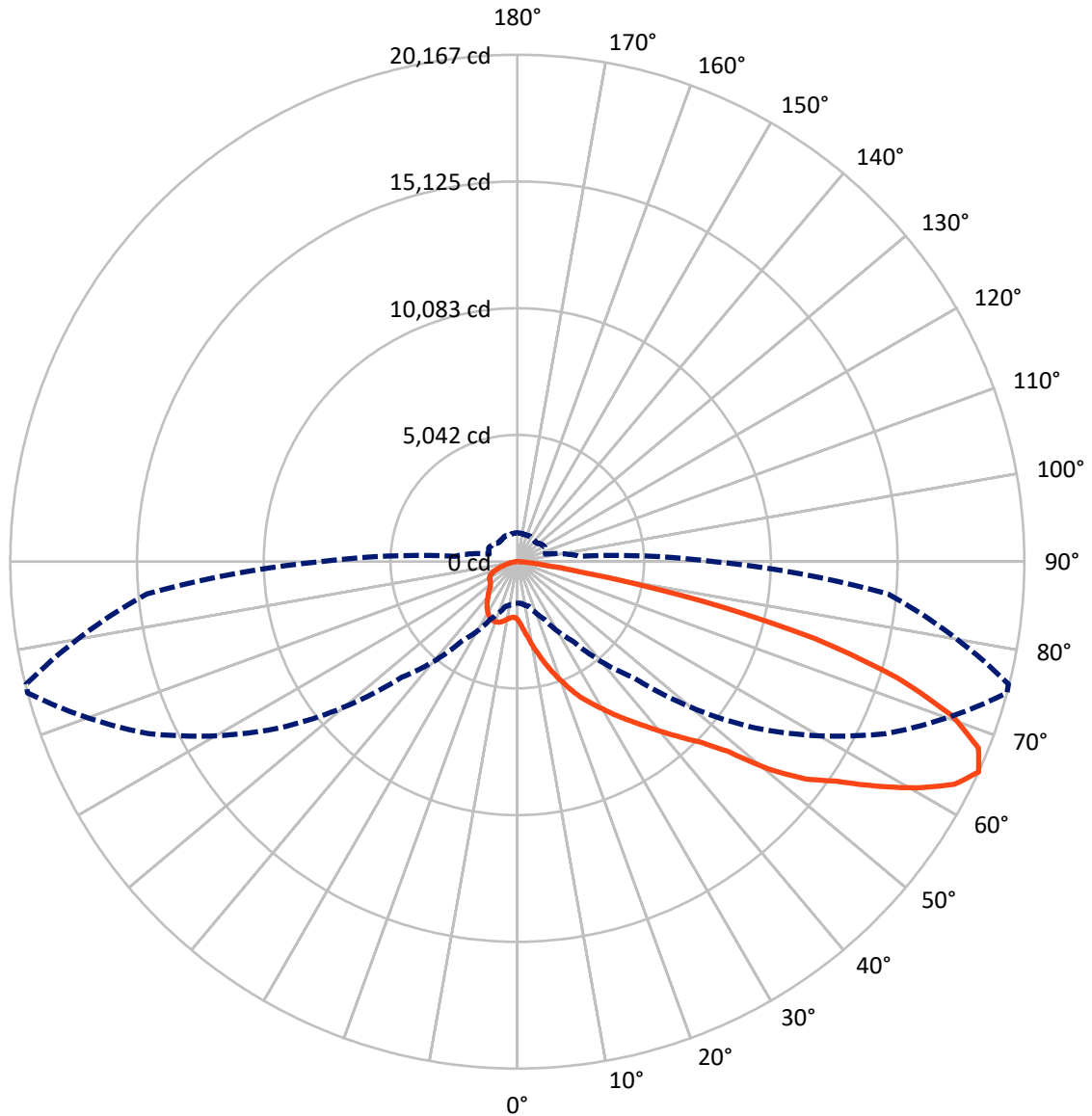
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.6 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4166.5	0.0	4166.5
	% Fixture	16.8	0.0	16.8
Street Side	Lumens	20617.5	0.0	20617.5
	% Fixture	83.2	0.0	83.2
Total	Lumens	24784.0	0.0	24784.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	279.8	1.1
10°-20°	1095.8	4.4
20°-30°	2116.8	8.5
30°-40°	3438.3	13.9
40°-50°	4729.7	19.1
50°-60°	5584.2	22.5
60°-70°	4892.7	19.7
70°-80°	2335.8	9.4
80°-90°	310.8	1.3
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°	24784.0	100.0
0°-180°	24784.0	100.0

Coefficient of Utilization



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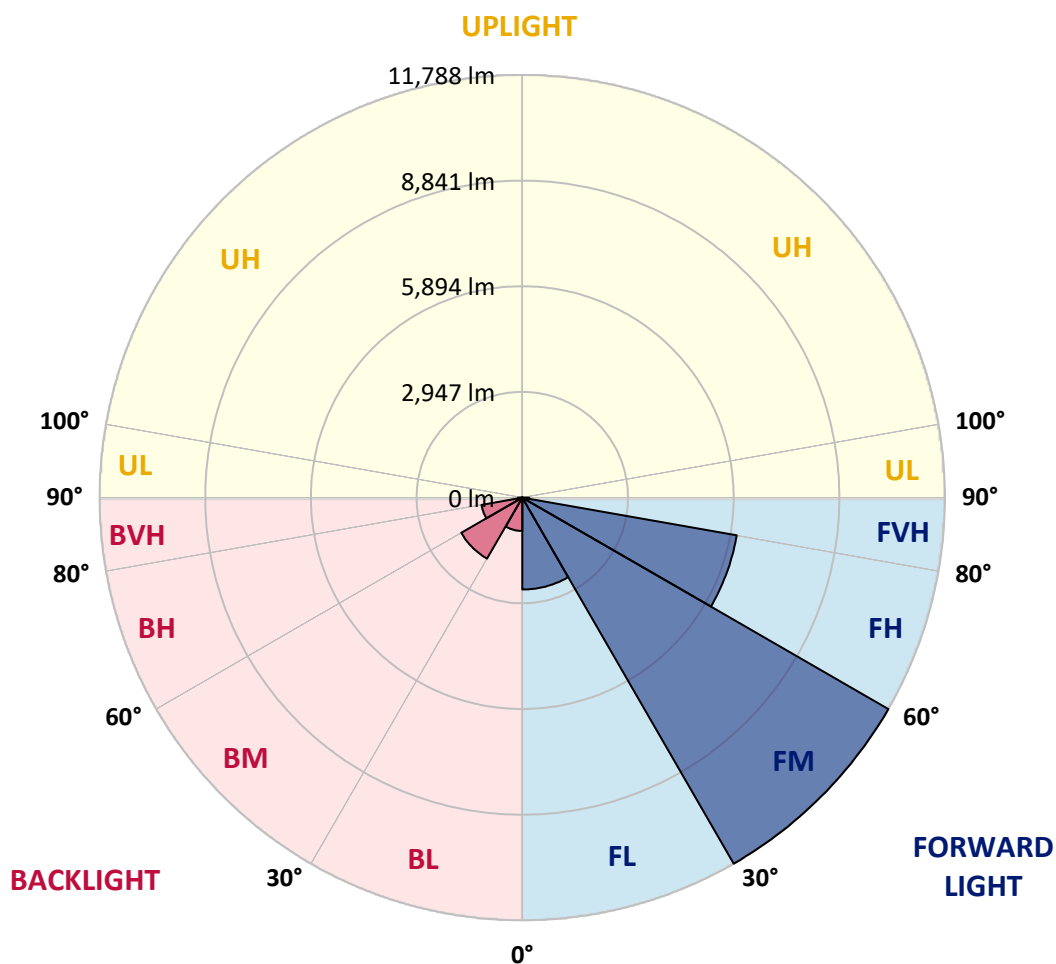
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2562.3	10.3			
FM (30°-60°)	11787.8	47.6			
FH (60°-80°)	6073.2	24.5			G3/7500
FVH (80°-90°)	194.2	0.8			G2/225
BL (0°-30°)	930.2	3.8	B2/1000		
BM (30°-60°)	1964.5	7.9	B2/2500		
BH (60°-80°)	1155.3	4.7	B3/2500		G3/2500
BVH (80°-90°)	116.6	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-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	2302.7	2302.7	2302.7	2302.7	2302.7	2302.7	2302.7	2302.7	2302.7	2302.7	2302.7
2.5°	3059.6	3039.4	3017.9	2958.8	2895.6	2824.3	2722.2	2624.0	2493.6	2489.6	2392.8
5°	3907.8	3894.4	3798.9	3743.8	3597.3	3402.4	3237.0	2980.3	2742.3	2714.1	2525.9
7.5°	4687.5	4635.1	4598.8	4499.3	4354.1	4104.1	3784.1	3437.3	3039.4	3001.8	2689.9
10°	5274.9	5269.6	5250.7	5164.7	5055.8	4807.1	4452.2	3954.9	3415.8	3341.9	2888.9
12.5°	5714.5	5718.6	5715.9	5714.5	5636.6	5425.5	5041.0	4516.8	3796.2	3743.8	3118.7
15°	6003.5	6043.9	6060.0	6127.2	6133.9	5992.8	5662.1	5059.9	4225.1	4147.1	3366.1
17.5°	6194.4	6214.6	6289.9	6404.1	6496.9	6471.3	6177.0	5562.6	4663.3	4532.9	3622.8
20°	6377.3	6412.2	6470.0	6625.9	6789.9	6865.2	6658.2	6077.5	5097.5	5014.2	3906.5
22.5°	6757.7	6807.4	6827.6	6906.9	7046.7	7179.8	7085.7	6570.8	5573.4	5460.5	4207.6
25°	7401.6	7454.0	7397.6	7378.7	7424.4	7490.3	7470.1	7035.9	6022.4	5861.0	4492.6
27.5°	8240.4	8247.1	8136.9	8032.1	7919.1	7885.5	7823.7	7448.6	6412.2	6277.8	4778.9
30°	9141.1	9108.8	8926.0	8736.5	8545.6	8357.4	8179.9	7846.5	6846.4	6691.8	5059.9
32.5°	9977.2	9959.7	9756.8	9462.4	9139.7	8962.3	8603.4	8248.5	7311.5	7162.3	5348.9
35°	10603.7	10629.2	10406.0	10084.8	9732.6	9575.3	9122.3	8670.6	7792.8	7630.1	5663.4
37.5°	11048.6	11035.2	10837.6	10559.3	10250.1	10113.0	9728.5	9131.7	8310.3	8154.4	6007.6
40°	11207.2	11199.2	11052.6	10849.7	10653.4	10605.0	10363.0	9629.1	8903.1	8720.3	6421.6
42.5°	11106.4	11123.9	11027.1	10972.0	10935.7	10970.6	10993.5	10281.0	9549.7	9381.7	6870.6
45°	10797.2	10787.8	10774.4	10864.4	11068.8	11298.6	11617.2	10896.7	10252.8	10118.4	7472.8
47.5°	10244.7	10311.9	10345.6	10594.2	11040.5	11585.0	12335.1	11722.1	11273.1	11156.2	8391.0
50°	9471.8	9525.5	9724.5	10166.8	10832.2	11692.5	13036.8	13071.8	12975.0	12755.8	9388.4
52.5°	8264.6	8348.0	8758.0	9568.6	10404.7	11648.2	13461.6	14229.2	14356.9	14192.9	10371.1
55°	6913.6	7030.6	7463.4	8526.7	9815.9	11406.2	13754.6	14900.0	15409.4	15257.5	11317.5
57.5°	5590.8	5714.5	6159.5	7189.2	8788.9	10871.2	13946.9	15647.4	16842.4	16644.8	12495.1
60°	4190.1	4319.2	4700.9	5761.6	7326.3	9825.3	13816.5	16295.3	18274.1	18189.4	13674.0
62.5°	2703.3	2845.8	3177.9	4055.7	5631.2	8396.4	13118.8	16652.9	19513.5	19411.4	14534.3
65°	1646.7	1662.9	1845.7	2517.8	3854.0	6500.9	11523.1	16178.4	20166.8	20135.9	14796.5
67.5°	1064.7	1090.2	1173.6	1508.3	2310.8	4515.4	9213.7	14612.3	19785.1	19774.3	14254.7
70°	899.3	907.4	945.0	1017.6	1342.9	2738.3	6470.0	12116.0	18334.6	18334.6	12952.1
72.5°	803.9	814.6	828.1	850.9	958.5	1551.3	3860.8	9431.4	15830.2	15935.1	11024.4
75°	729.9	727.3	735.3	739.4	817.3	1013.6	1996.3	6975.5	12246.4	12036.7	7983.7
77.5°	625.1	629.1	625.1	642.6	721.9	771.6	1013.6	4680.8	7421.8	7150.2	4007.3
80°	513.5	520.2	527.0	537.7	617.0	586.1	609.0	2133.4	2745.0	2687.2	1238.1
82.5°	385.8	395.2	406.0	431.5	485.3	387.2	384.5	911.4	990.7	907.4	455.7
85°	155.9	184.2	278.3	303.8	305.2	212.4	236.6	380.4	404.6	395.2	178.8
87.5°	36.3	43.0	90.1	135.8	125.0	79.3	87.4	123.7	141.1	130.4	60.5
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°	2302.7	2302.7	2302.7	2302.7	2302.7	2302.7	2302.7	2302.7	2302.7	2302.7	2302.7
2.5°	2348.5	2301.4	2220.7	2158.9	2114.5	2075.6	2051.4	2036.6	2031.2	2029.9	2031.2
5°	2427.8	2344.4	2216.7	2136.1	2091.7	2066.2	2051.4	2050.0	2051.4	2052.7	2048.7
7.5°	2536.7	2417.0	2250.3	2175.0	2141.4	2122.6	2115.9	2113.2	2114.5	2113.2	2113.2
10°	2681.8	2517.8	2316.2	2238.2	2210.0	2188.5	2177.7	2171.0	2165.6	2160.3	2157.6
12.5°	2841.8	2629.4	2387.4	2312.2	2271.8	2238.2	2214.0	2196.5	2184.5	2172.4	2169.7
15°	3020.6	2747.7	2466.7	2361.9	2304.1	2254.4	2212.7	2184.5	2162.9	2145.5	2144.1
17.5°	3191.3	2859.3	2520.5	2384.7	2300.1	2230.2	2175.0	2136.1	2109.2	2086.3	2083.6
20°	3374.1	2965.5	2544.7	2370.0	2259.7	2175.0	2102.4	2055.4	2024.5	1998.9	1994.9
22.5°	3558.3	3055.5	2542.0	2322.9	2189.8	2090.4	2013.7	1964.0	1927.7	1902.2	1892.7
25°	3734.4	3128.1	2508.4	2247.6	2093.0	1989.5	1911.6	1865.9	1833.6	1802.7	1802.7
27.5°	3893.0	3171.1	2445.2	2156.2	1993.6	1884.7	1822.8	1781.2	1751.6	1731.4	1719.3
30°	4049.0	3191.3	2359.2	2040.6	1888.7	1796.0	1746.2	1722.0	1695.1	1672.3	1669.6
32.5°	4188.8	3187.3	2251.7	1927.7	1789.2	1723.4	1703.2	1684.4	1656.1	1623.9	1615.8
35°	4324.5	3160.4	2124.0	1804.0	1705.9	1680.3	1685.7	1658.8	1607.8	1567.4	1560.7
37.5°	4472.4	3112.0	1984.2	1703.2	1636.0	1660.2	1673.6	1614.5	1531.1	1468.0	1453.2
40°	4643.1	3056.9	1839.0	1602.4	1580.9	1641.4	1641.4	1532.5	1418.2	1379.2	1368.5
42.5°	4843.4	3011.2	1718.0	1517.7	1535.2	1595.7	1588.9	1423.6	1376.5	1356.4	1351.0
45°	5160.7	2995.0	1593.0	1443.8	1497.5	1541.9	1486.8	1385.9	1359.1	1342.9	1337.6
47.5°	5662.1	3013.9	1482.7	1388.6	1454.5	1488.1	1372.5	1360.4	1341.6	1318.7	1316.0
50°	6127.2	2996.4	1404.8	1357.7	1416.9	1423.6	1325.5	1329.5	1318.7	1293.2	1287.8
52.5°	6507.6	2941.3	1355.0	1341.6	1384.6	1310.7	1281.1	1295.9	1291.9	1259.6	1254.2
55°	6925.7	2907.7	1330.8	1341.6	1363.1	1212.5	1239.4	1260.9	1255.6	1232.7	1231.4
57.5°	7432.5	2914.4	1313.4	1345.6	1341.6	1162.8	1197.8	1223.3	1221.9	1215.2	1215.2
60°	7951.4	2917.1	1286.5	1344.3	1316.0	1123.8	1154.7	1191.0	1193.7	1197.8	1197.8
62.5°	8123.5	2800.1	1234.0	1320.1	1259.6	1086.2	1114.4	1164.1	1161.5	1172.2	1173.6
65°	7802.2	2476.2	1156.1	1265.0	1187.0	1059.3	1083.5	1129.2	1114.4	1142.6	1148.0
67.5°	7101.8	2048.7	1035.1	1165.5	1106.3	1031.1	1063.3	1080.8	1053.9	1109.0	1110.4
70°	6138.0	1599.7	881.8	1024.3	1014.9	1001.5	1047.2	1020.3	982.7	1049.9	1036.4
72.5°	5132.4	1221.9	704.4	837.5	892.6	957.1	1019.0	942.3	889.9	910.1	885.9
75°	3855.4	903.4	565.9	656.0	743.4	893.9	993.4	848.2	767.6	748.8	743.4
77.5°	1965.3	590.1	423.4	490.7	557.9	807.9	958.5	738.0	635.8	606.3	592.8
80°	701.7	367.0	298.4	338.8	376.4	695.0	837.5	610.3	493.3	488.0	493.3
82.5°	325.3	236.6	200.3	221.8	223.1	463.8	638.5	455.7	375.1	570.0	481.3
85°	139.8	118.3	112.9	110.2	102.2	207.0	358.9	244.7	381.8	170.7	157.3
87.5°	41.7	47.0	41.7	30.9	22.9	22.9	36.3	13.4	9.4	6.7	6.7
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)