

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: P298964

Luminaire Tested: **GLNA-AF-09-LED-E1-T2-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298964
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24139)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-09-LED-E1-T2-7030-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 70 CRI, 3000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 40667.6 lumens
Efficiency: N/A
Efficacy: 108.7 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B4 - U0 - G5

Input Watts (W): 374
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: 25 FT

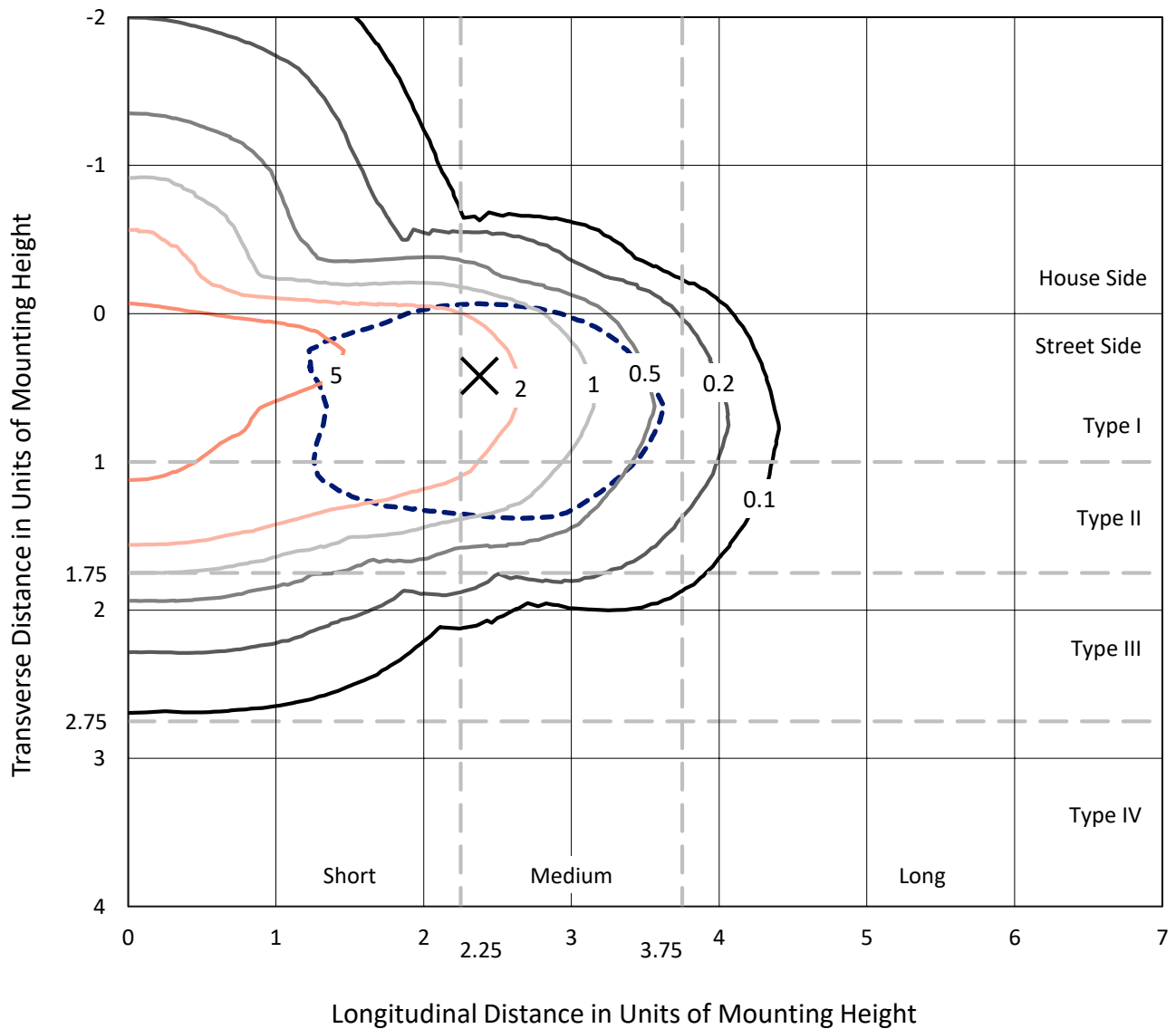


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

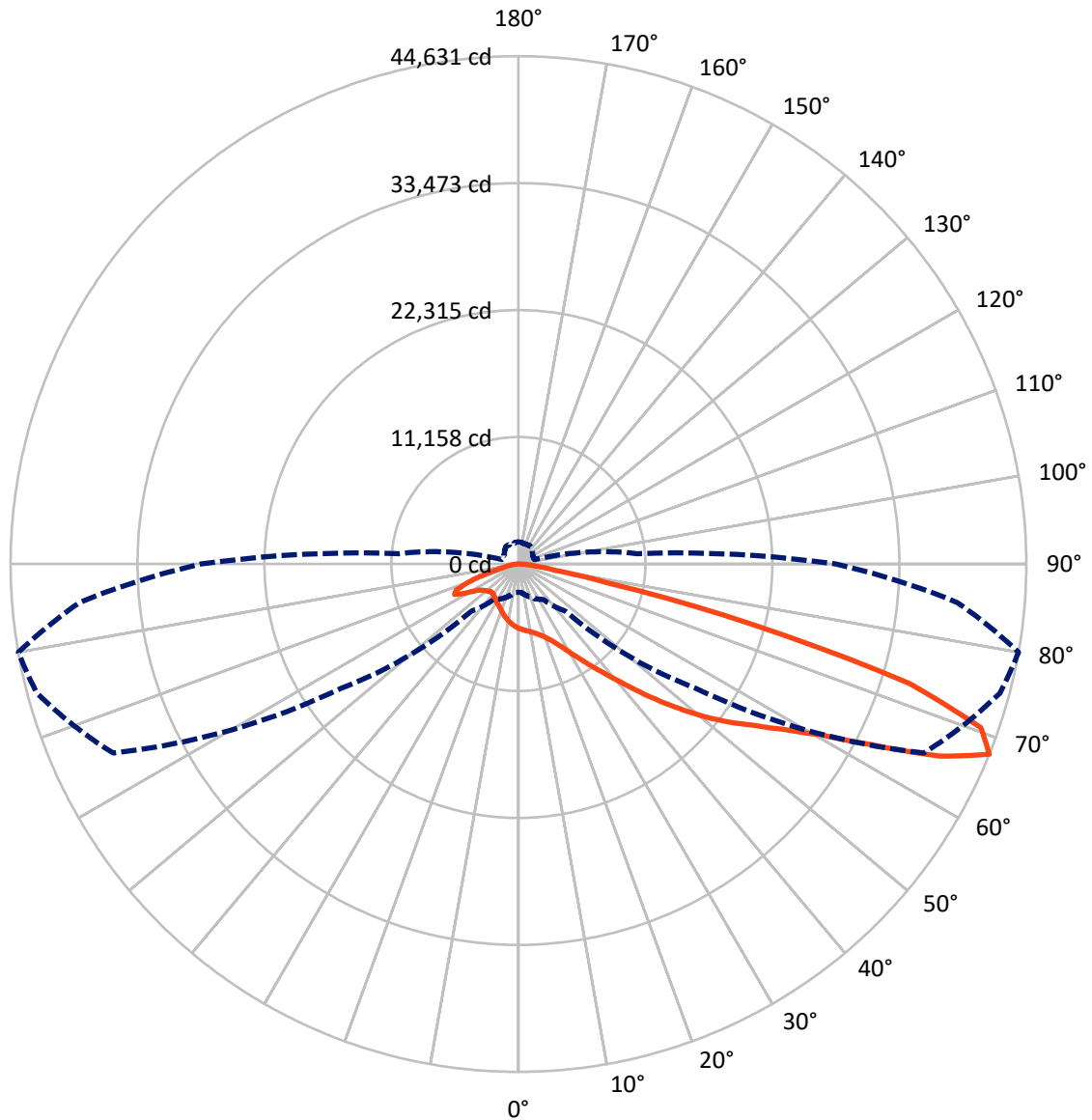


Based on 30 foot mounting height. Maximum calculated value = 7.6 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 80-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7489.4	0.0	7489.4
	% Fixture	18.4	0.0	18.4
Street Side	Lumens	33178.2	0.0	33178.2
	% Fixture	81.6	0.0	81.6
Total	Lumens	40667.6	0.0	40667.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	521.2	1.3
10°-20°	1501.4	3.7
20°-30°	2485.1	6.1
30°-40°	4065.0	10.0
40°-50°	6563.3	16.1
50°-60°	9475.5	23.3
60°-70°	10456.8	25.7
70°-80°	4819.9	11.9
80°-90°	779.6	1.9
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°	40667.6	100.0
0°-180°	40667.6	100.0



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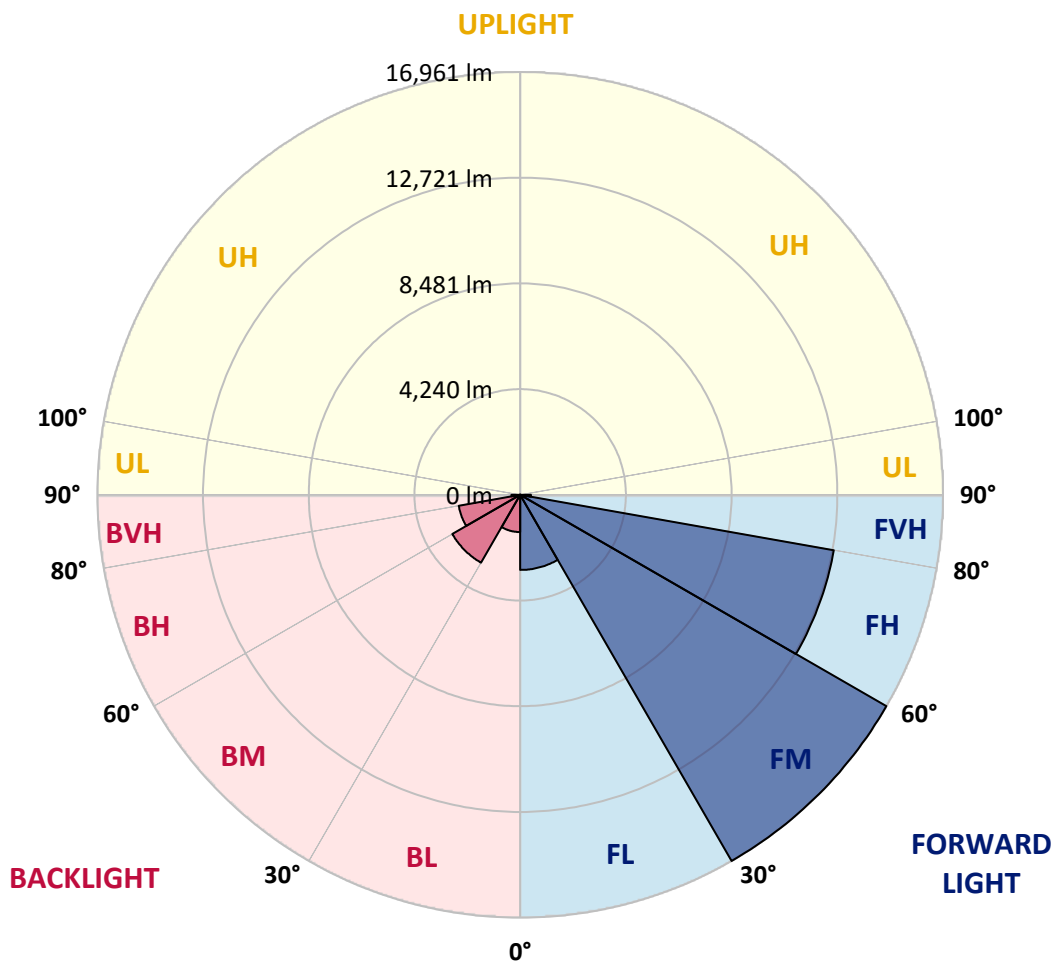
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3013.4	7.4			
FM (30°-60°)	16961.4	41.7			
FH (60°-80°)	12774.8	31.4			G5
FVH (80°-90°)	428.6	1.1			G3/500
BL (0°-30°)	1494.2	3.7	B3/2500		
BM (30°-60°)	3142.3	7.7	B3/5000		
BH (60°-80°)	2501.9	6.2	B4/5000		G4/5000
BVH (80°-90°)	351.0	0.9			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G5

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	80°	85°
0°	5649.9	5649.9	5649.9	5649.9	5649.9	5649.9	5649.9	5649.9	5649.9	5649.9	5649.9
2.5°	6180.5	6144.4	6150.4	6140.4	6110.4	6058.3	6002.3	5900.2	5794.1	5738.0	5694.0
5°	6697.0	6687.0	6673.0	6641.0	6564.9	6456.8	6322.6	6142.4	5948.2	5846.1	5748.0
7.5°	7083.4	7077.4	7059.4	7039.4	6965.3	6835.2	6632.9	6376.7	6094.4	5954.2	5802.1
10°	7115.5	7125.5	7139.5	7193.5	7203.5	7133.5	6927.3	6616.9	6246.5	6066.4	5872.1
12.5°	6843.2	6865.2	6919.2	7057.4	7203.5	7289.6	7183.5	6869.2	6424.7	6206.5	5960.2
15°	6482.8	6494.8	6560.9	6751.1	7013.3	7279.6	7379.7	7147.5	6655.0	6386.7	6092.4
17.5°	6328.6	6334.6	6380.7	6506.8	6751.1	7131.5	7489.8	7449.8	6937.3	6610.9	6254.5
20°	6250.5	6264.6	6330.6	6454.8	6608.9	6941.3	7505.9	7776.1	7273.6	6891.2	6458.8
22.5°	6472.8	6466.8	6490.8	6552.9	6683.0	6883.2	7493.8	8112.5	7702.1	7251.6	6725.0
25°	6991.3	7013.3	6971.3	6901.2	6943.3	7083.4	7557.9	8476.9	8238.6	7714.1	7073.4
27.5°	7730.1	7708.1	7646.0	7481.8	7395.7	7455.8	7770.1	8869.3	8905.3	8322.7	7533.9
30°	8466.9	8448.8	8388.8	8188.6	8012.4	7962.3	8182.6	9319.8	9700.2	9053.5	8098.5
32.5°	9231.7	9211.6	9155.6	8955.4	8743.2	8627.0	8769.2	9840.3	10637.1	9926.4	8763.2
35°	10174.7	10136.6	10018.5	9740.2	9532.0	9441.9	9508.0	10495.0	11718.3	10959.5	9570.0
37.5°	11061.6	11119.6	10999.5	10615.1	10344.8	10312.8	10386.9	11293.8	12883.5	12114.7	10497.0
40°	11952.5	11962.5	11854.4	11540.1	11261.8	11209.7	11395.9	12262.8	14258.9	13496.1	11624.2
42.5°	12873.5	12893.5	12711.3	12421.0	12216.8	12226.8	12439.0	13398.0	15836.6	15123.8	12921.5
45°	13964.6	13994.7	13794.4	13414.0	13227.9	13602.2	13514.1	14671.4	17566.4	16973.8	14411.1
47.5°	15105.8	15151.9	14999.7	14643.3	14411.1	14925.6	14589.3	16082.8	19428.3	18957.8	16046.8
50°	15728.5	15794.5	15942.7	15916.7	15866.6	15780.5	15788.5	17596.4	21348.4	21024.0	17728.6
52.5°	15394.1	15392.1	15932.7	16589.4	17290.1	17342.2	17250.1	19192.1	23142.2	23044.1	19312.2
55°	13864.5	13968.6	14787.5	16058.8	17972.8	19168.1	19440.4	21020.0	24904.1	25018.2	20919.9
57.5°	11317.9	11403.9	12509.1	14281.0	17051.9	20253.2	22555.6	23676.8	26874.1	27406.7	23060.1
60°	7676.0	7780.1	8951.4	11079.6	14573.3	19648.6	25520.7	28417.8	29232.6	30443.9	26063.3
62.5°	4510.7	4604.8	5559.8	6989.3	10260.7	16839.6	26822.1	35162.8	32978.5	35026.7	30644.1
65°	3105.3	3169.3	3633.8	4350.6	5896.2	11341.9	25208.4	39819.7	38742.6	40704.6	35955.6
67.5°	2498.6	2490.6	2859.0	3347.5	3796.0	5848.1	19062.0	39293.1	43811.9	44630.7	38712.5
70°	2058.2	2050.1	2300.4	2704.8	3033.2	3293.4	10382.9	33158.7	42778.8	43111.1	36173.9
72.5°	1721.8	1729.8	1890.0	2190.3	2488.6	2480.6	4562.8	23326.4	33653.2	35951.6	28836.2
75°	1453.5	1457.5	1563.6	1775.9	2020.1	1998.1	2474.6	12637.2	19562.5	21162.2	15984.7
77.5°	1237.3	1241.3	1309.4	1427.5	1601.7	1593.7	1805.9	5459.7	8160.5	8060.4	5467.7
80°	1103.2	1103.2	1135.2	1157.2	1253.3	1217.3	1339.4	2622.7	3449.6	3185.3	2182.3
82.5°	864.9	868.9	1065.1	1057.1	987.0	941.0	941.0	1545.6	1827.9	1689.8	1277.3
85°	486.5	484.5	686.7	828.9	868.9	662.7	656.7	864.9	995.0	876.9	618.6
87.5°	208.2	212.2	318.3	368.4	492.5	412.4	406.4	446.5	506.5	438.5	286.3
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°	5649.9	5649.9	5649.9	5649.9	5649.9	5649.9	5649.9	5649.9	5649.9	5649.9	5649.9
2.5°	5651.9	5599.9	5485.7	5343.6	5215.5	5131.4	5055.3	4945.2	4951.2	4875.1	4819.0
5°	5647.9	5539.8	5275.5	4961.2	4658.9	4440.6	4276.5	4128.3	4092.3	4022.2	3980.2
7.5°	5651.9	5475.7	5031.3	4528.7	4154.3	3878.1	3737.9	3659.8	3641.8	3617.8	3619.8
10°	5665.9	5417.7	4763.0	4124.3	3731.9	3549.7	3515.7	3539.7	3567.7	3575.7	3577.7
12.5°	5698.0	5365.6	4468.7	3763.9	3467.6	3411.6	3469.6	3551.7	3605.8	3631.8	3629.8
15°	5770.0	5325.6	4186.4	3481.6	3321.5	3351.5	3459.6	3575.7	3653.8	3689.9	3691.9
17.5°	5848.1	5267.5	3896.1	3265.4	3213.4	3289.4	3423.6	3559.7	3655.8	3695.9	3703.9
20°	5950.2	5195.4	3591.8	3103.2	3111.3	3197.3	3323.5	3459.6	3565.7	3599.8	3615.8
22.5°	6084.4	5117.4	3325.5	2971.1	2995.1	3061.2	3159.3	3277.4	3369.5	3385.5	3399.6
25°	6264.6	5033.3	3113.3	2851.0	2861.0	2899.0	2965.1	3035.2	3099.2	3081.2	3095.2
27.5°	6506.8	4961.2	2955.1	2740.9	2722.9	2730.9	2764.9	2786.9	2821.0	2770.9	2776.9
30°	6791.1	4883.1	2833.0	2644.8	2594.7	2580.7	2588.7	2600.7	2626.8	2558.7	2548.7
32.5°	7121.5	4789.0	2718.8	2560.7	2490.6	2462.6	2466.6	2498.6	2598.7	2556.7	2534.7
35°	7505.9	4682.9	2598.7	2468.6	2420.5	2380.5	2376.5	2476.6	2774.9	2748.9	2728.9
37.5°	7956.3	4576.8	2478.6	2364.5	2368.5	2324.4	2310.4	2424.5	2808.9	2706.8	2692.8
40°	8528.9	4520.7	2376.5	2254.4	2304.4	2298.4	2270.4	2328.4	2584.7	2398.5	2374.5
42.5°	9237.7	4528.7	2300.4	2136.2	2228.3	2292.4	2248.4	2250.4	2342.5	2202.3	2180.3
45°	10112.6	4622.8	2246.4	2042.1	2142.2	2286.4	2240.3	2208.3	2216.3	2142.2	2130.2
47.5°	11133.7	4817.0	2208.3	1964.1	2060.2	2264.4	2238.3	2196.3	2178.3	2138.2	2128.2
50°	12268.8	5099.3	2180.3	1890.0	1986.1	2228.3	2240.3	2184.3	2164.3	2148.2	2142.2
52.5°	13384.0	5421.7	2138.2	1825.9	1928.0	2184.3	2246.4	2172.3	2150.3	2138.2	2132.2
55°	14627.3	5824.1	2074.2	1771.9	1880.0	2128.2	2246.4	2154.3	2130.2	2132.2	2130.2
57.5°	16307.1	6474.8	1998.1	1725.8	1821.9	2060.2	2208.3	2134.2	2104.2	2106.2	2108.2
60°	18931.8	7622.0	1906.0	1679.8	1749.8	1980.1	2156.3	2090.2	2060.2	2068.2	2070.2
62.5°	22791.9	9305.7	1785.9	1611.7	1673.8	1894.0	2084.2	2034.1	2004.1	2024.1	2024.1
65°	26804.1	10791.3	1637.7	1525.6	1593.7	1799.9	1994.1	1964.1	1934.0	1980.1	1978.1
67.5°	27883.2	10459.0	1489.6	1431.5	1513.6	1695.8	1886.0	1870.0	1853.9	1934.0	1930.0
70°	24769.9	8396.8	1353.4	1335.4	1425.5	1583.7	1769.9	1769.9	1759.8	1819.9	1805.9
72.5°	18871.8	5954.2	1223.3	1233.3	1325.4	1461.5	1643.7	1657.7	1641.7	1671.8	1659.7
75°	10102.6	3407.6	1093.1	1121.2	1201.3	1337.4	1503.6	1517.6	1507.6	1505.6	1511.6
77.5°	3357.5	1665.7	957.0	1001.0	1071.1	1209.3	1357.4	1379.4	1355.4	1351.4	1349.4
80°	1495.6	1047.1	806.8	864.9	927.0	1063.1	1203.3	1221.3	1195.3	1231.3	1185.2
82.5°	961.0	688.7	646.7	710.7	770.8	917.0	1049.1	1053.1	1029.1	1195.3	1019.1
85°	466.5	426.4	486.5	544.6	596.6	720.8	868.9	870.9	810.8	738.8	712.7
87.5°	232.2	248.3	324.3	376.4	402.4	494.5	632.7	620.6	594.6	540.6	498.5
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)