

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: P298969

Luminaire Tested: **GLNA-AF-10-LED-E1-T2-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298969
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-10-LED-E1-T2-7027-800
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 40443.3 lumens
Efficiency: N/A
Efficacy: 96.5 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B3 - U0 - G5

Input Watts (W): 419
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

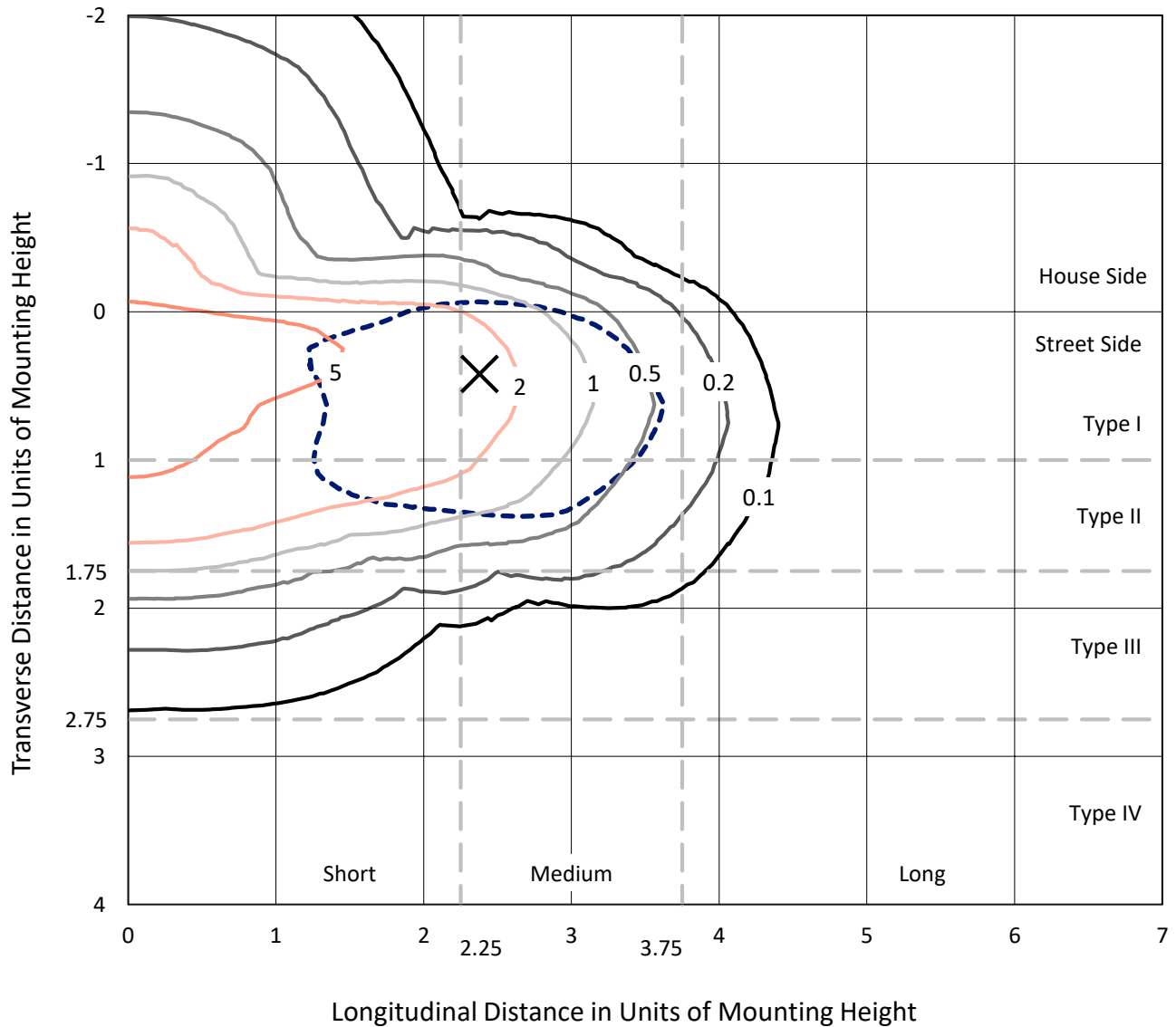


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

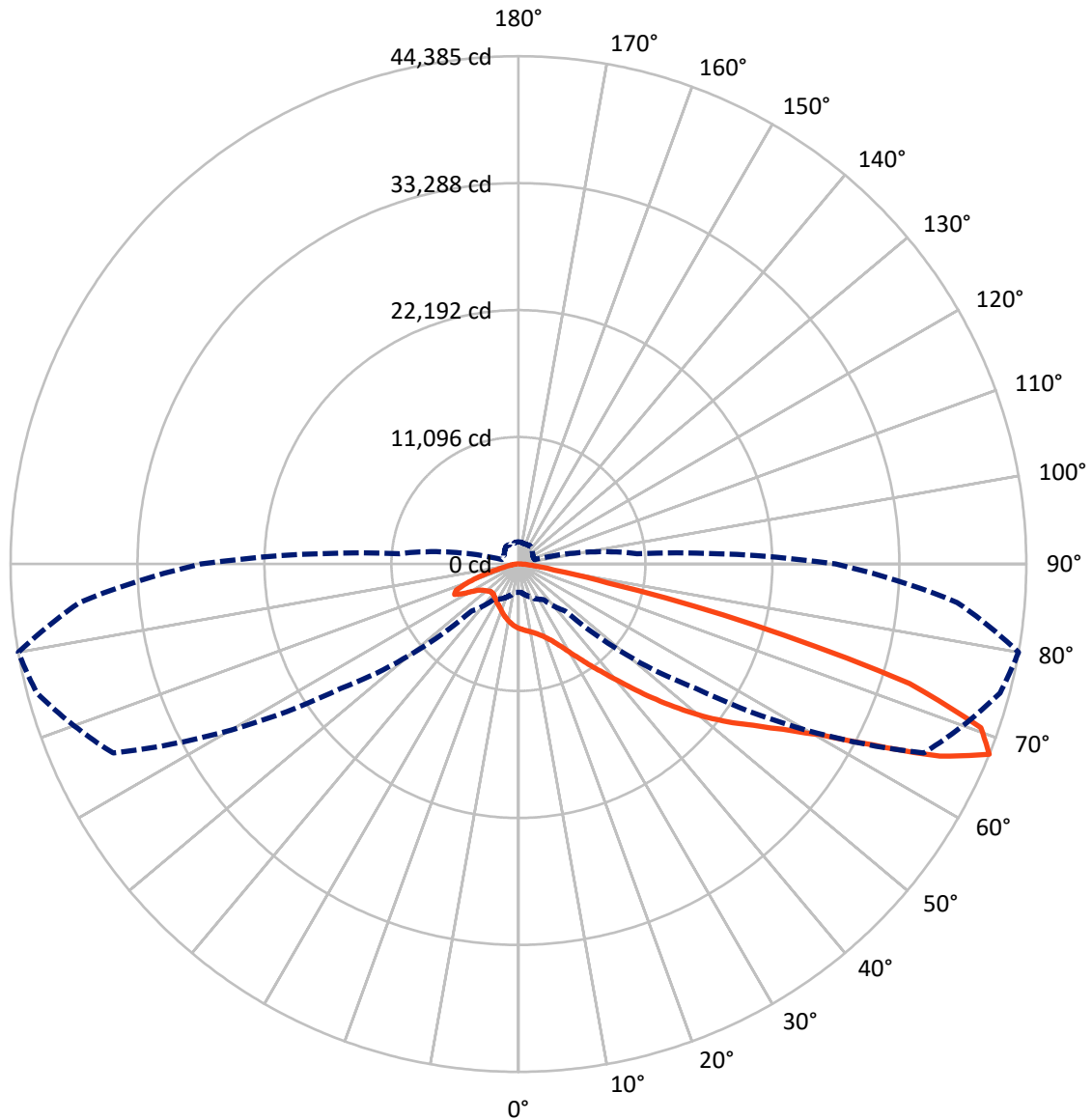


Based on 30 foot mounting height. Maximum calculated value = 7.6 fc
 Type II - Medium - Full Cutoff

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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	7448.1	0.0	7448.1
	% Fixture	18.4	0.0	18.4
Street Side	Lumens	32995.2	0.0	32995.2
	% Fixture	81.6	0.0	81.6
Total	Lumens	40443.3	0.0	40443.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	518.3	1.3
10°-20°	1493.1	3.7
20°-30°	2471.4	6.1
30°-40°	4042.5	10.0
40°-50°	6527.1	16.1
50°-60°	9423.2	23.3
60°-70°	10399.1	25.7
70°-80°	4793.3	11.9
80°-90°	775.3	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°	40443.3	100.0
0°-180°	40443.3	100.0



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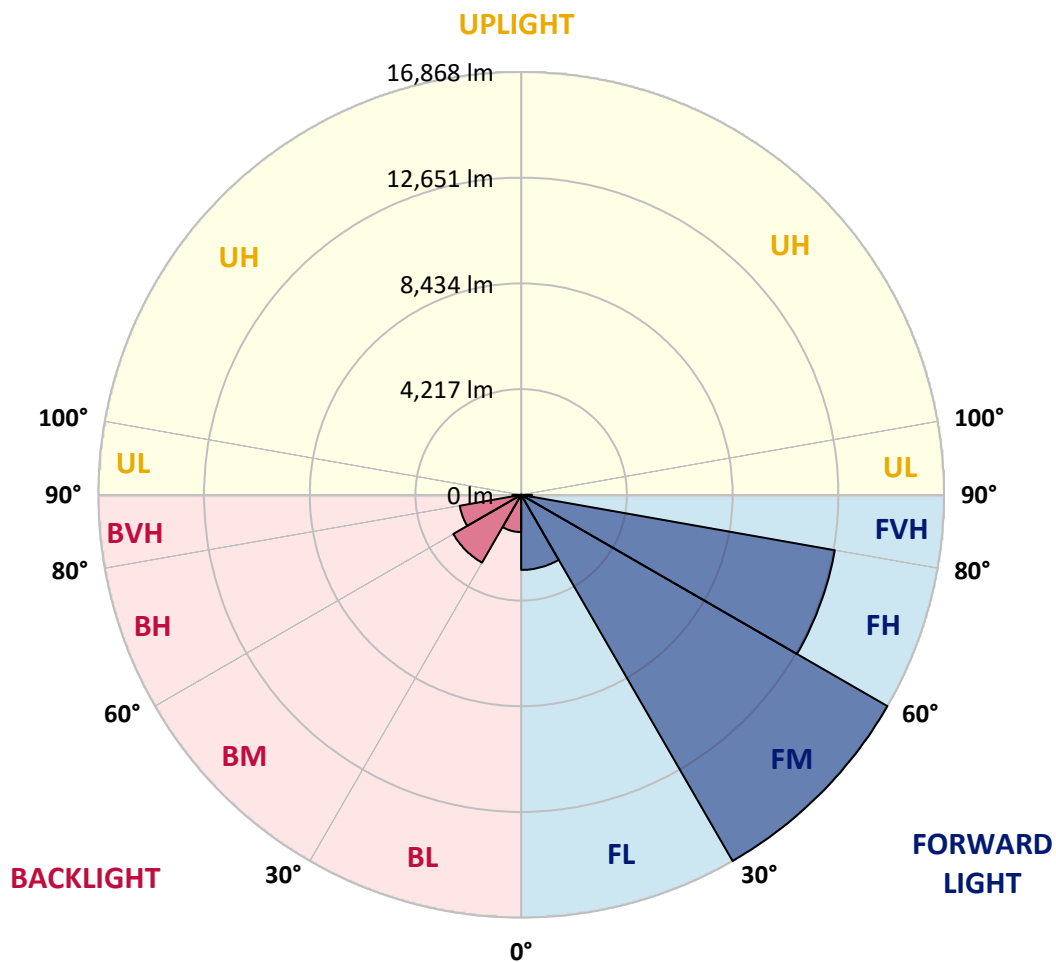
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2996.8	7.4			
FM (30°-60°)	16867.9	41.7			
FH (60°-80°)	12704.3	31.4			G5
FVH (80°-90°)	426.2	1.1			G3/500
BL (0°-30°)	1486.0	3.7	B3/2500		
BM (30°-60°)	3125.0	7.7	B3/5000		
BH (60°-80°)	2488.1	6.2	B3/2500		G3/2500
BVH (80°-90°)	349.0	0.9			G3/500
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G5

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	80°	85°
0°	5618.7	5618.7	5618.7	5618.7	5618.7	5618.7	5618.7	5618.7	5618.7	5618.7	5618.7
2.5°	6146.4	6110.5	6116.5	6106.6	6076.7	6024.9	5969.2	5867.6	5762.1	5706.4	5662.6
5°	6660.1	6650.1	6636.2	6604.3	6528.7	6421.1	6287.7	6108.5	5915.4	5813.9	5716.3
7.5°	7044.3	7038.4	7020.4	7000.5	6926.9	6797.5	6596.4	6341.5	6060.8	5921.4	5770.1
10°	7076.2	7086.2	7100.1	7153.9	7163.8	7094.1	6889.0	6580.4	6212.1	6032.9	5839.8
12.5°	6805.4	6827.3	6881.1	7018.5	7163.8	7249.4	7143.9	6831.3	6389.3	6172.3	5927.4
15°	6447.0	6459.0	6524.7	6713.8	6974.7	7239.5	7339.0	7108.1	6618.3	6351.5	6058.8
17.5°	6293.7	6299.7	6345.5	6470.9	6713.8	7092.1	7448.5	7408.7	6899.0	6574.5	6220.0
20°	6216.1	6230.0	6295.7	6419.2	6572.5	6903.0	7464.5	7733.2	7233.5	6853.2	6423.1
22.5°	6437.1	6431.1	6455.0	6516.7	6646.1	6845.2	7452.5	8067.7	7659.6	7211.6	6687.9
25°	6952.8	6974.7	6932.8	6863.2	6905.0	7044.3	7516.2	8430.1	8193.2	7671.5	7034.4
27.5°	7687.5	7665.6	7603.8	7440.6	7354.9	7414.7	7727.3	8820.4	8856.2	8276.8	7492.3
30°	8420.2	8402.2	8342.5	8143.4	7968.2	7918.4	8137.4	9268.3	9646.6	9003.5	8053.8
32.5°	9180.7	9160.8	9105.1	8906.0	8694.9	8579.4	8720.8	9786.0	10578.5	9871.6	8714.8
35°	10118.5	10080.7	9963.2	9686.5	9479.4	9389.8	9455.5	10437.1	11653.6	10899.0	9517.2
37.5°	11000.6	11058.3	10938.8	10556.6	10287.8	10255.9	10329.6	11231.5	12812.4	12047.9	10439.1
40°	11886.6	11896.5	11789.0	11476.4	11199.7	11147.9	11333.1	12195.2	14180.3	13421.7	11560.0
42.5°	12802.5	12822.4	12641.2	12352.5	12149.4	12159.4	12370.4	13324.1	15749.2	15040.4	12850.3
45°	13887.6	13917.5	13718.3	13340.0	13154.9	13527.2	13439.6	14590.4	17469.5	16880.1	14331.6
47.5°	15022.5	15068.3	14917.0	14562.6	14331.6	14843.3	14508.8	15994.1	19321.2	18853.3	15958.3
50°	15641.7	15707.4	15854.7	15828.9	15779.1	15693.5	15701.4	17499.4	21230.6	20908.0	17630.8
52.5°	15309.2	15307.2	15844.8	16497.9	17194.7	17246.5	17154.9	19086.2	23014.6	22917.0	19205.7
55°	13788.0	13891.6	14705.9	15970.2	17873.7	19062.3	19333.1	20904.1	24766.7	24880.2	20804.5
57.5°	11255.4	11341.0	12440.1	14202.2	16957.8	20141.5	22431.2	23546.2	26725.9	27255.5	22932.9
60°	7633.7	7737.2	8902.0	11018.5	14492.9	19540.2	25379.9	28261.0	29071.4	30275.9	25919.5
62.5°	4485.8	4579.4	5529.2	6950.8	10204.1	16746.7	26674.1	34968.8	32796.6	34833.5	30475.0
65°	3088.1	3151.8	3613.8	4326.6	5863.6	11279.3	25069.3	39600.0	38528.8	40480.1	35757.3
67.5°	2484.8	2476.9	2843.2	3329.0	3775.0	5815.9	18956.8	39076.4	43570.2	44384.5	38499.0
70°	2046.8	2038.8	2287.7	2689.9	3016.4	3275.3	10325.6	32975.8	42542.8	42873.3	35974.3
72.5°	1712.3	1720.3	1879.6	2178.2	2474.9	2466.9	4537.6	23197.7	33467.6	35753.3	28677.1
75°	1445.5	1449.5	1555.0	1766.1	2009.0	1987.1	2460.9	12567.5	19454.6	21045.4	15896.6
77.5°	1230.5	1234.5	1302.1	1419.6	1592.8	1584.9	1795.9	5429.6	8115.5	8016.0	5437.6
80°	1097.1	1097.1	1128.9	1150.8	1246.4	1210.6	1332.0	2608.3	3430.6	3167.8	2170.2
82.5°	860.1	864.1	1059.2	1051.3	981.6	935.8	935.8	1537.1	1817.8	1680.4	1270.3
85°	483.8	481.8	682.9	824.3	864.1	659.0	653.1	860.1	989.6	872.1	615.2
87.5°	207.1	211.1	316.6	366.4	489.8	410.2	404.2	444.0	503.7	436.0	284.7
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°	5618.7	5618.7	5618.7	5618.7	5618.7	5618.7	5618.7	5618.7	5618.7	5618.7	5618.7
2.5°	5620.7	5569.0	5455.5	5314.1	5186.7	5103.1	5027.4	4917.9	4923.9	4848.2	4792.5
5°	5616.8	5509.2	5246.4	4933.8	4633.2	4416.2	4252.9	4105.5	4069.7	4000.0	3958.2
7.5°	5620.7	5445.5	5003.5	4503.8	4131.4	3856.7	3717.3	3639.6	3621.7	3597.8	3599.8
10°	5634.7	5387.8	4736.7	4101.6	3711.3	3530.1	3496.3	3520.2	3548.1	3556.0	3558.0
12.5°	5666.5	5336.0	4444.0	3743.2	3448.5	3392.8	3450.5	3532.1	3585.9	3611.8	3609.8
15°	5738.2	5296.2	4163.3	3462.4	3303.2	3333.0	3440.5	3556.0	3633.7	3669.5	3671.5
17.5°	5815.9	5238.5	3874.6	3247.4	3195.6	3271.3	3404.7	3540.1	3635.7	3675.5	3683.4
20°	5917.4	5166.8	3571.9	3086.1	3094.1	3179.7	3305.1	3440.5	3546.1	3579.9	3595.8
22.5°	6050.8	5089.1	3307.1	2954.7	2978.6	3044.3	3141.9	3259.4	3350.9	3366.9	3380.8
25°	6230.0	5005.5	3096.1	2835.3	2845.2	2883.0	2948.7	3018.4	3082.1	3064.2	3078.2
27.5°	6470.9	4933.8	2938.8	2725.8	2707.8	2715.8	2749.6	2771.5	2805.4	2755.6	2761.6
30°	6753.6	4856.2	2817.3	2630.2	2580.4	2566.5	2574.4	2586.4	2612.3	2544.6	2534.6
32.5°	7082.2	4762.6	2703.8	2546.6	2476.9	2449.0	2453.0	2484.8	2584.4	2542.6	2520.7
35°	7464.5	4657.1	2584.4	2455.0	2407.2	2367.4	2363.4	2462.9	2759.6	2733.7	2713.8
37.5°	7912.4	4551.5	2464.9	2351.4	2355.4	2311.6	2297.7	2411.2	2793.4	2691.9	2678.0
40°	8481.9	4495.8	2363.4	2241.9	2291.7	2285.7	2257.9	2315.6	2570.4	2385.3	2361.4
42.5°	9186.7	4503.8	2287.7	2124.5	2216.0	2279.8	2236.0	2237.9	2329.5	2190.2	2168.3
45°	10056.8	4597.3	2234.0	2030.9	2130.4	2273.8	2228.0	2196.1	2204.1	2130.4	2118.5
47.5°	11072.2	4790.5	2196.1	1953.2	2048.8	2251.9	2226.0	2184.2	2166.3	2126.4	2116.5
50°	12201.2	5071.2	2168.3	1879.6	1975.1	2216.0	2228.0	2172.2	2152.3	2136.4	2130.4
52.5°	13310.2	5391.8	2126.4	1815.8	1917.4	2172.2	2234.0	2160.3	2138.4	2126.4	2120.5
55°	14546.6	5792.0	2062.7	1762.1	1869.6	2116.5	2234.0	2142.4	2118.5	2120.5	2118.5
57.5°	16217.1	6439.1	1987.1	1716.3	1811.9	2048.8	2196.1	2122.5	2092.6	2094.6	2096.6
60°	18827.4	7579.9	1895.5	1670.5	1740.2	1969.2	2144.4	2078.7	2048.8	2056.8	2058.7
62.5°	22666.1	9254.4	1776.0	1602.8	1664.5	1883.5	2072.7	2022.9	1993.0	2013.0	2013.0
65°	26656.2	10731.8	1628.7	1517.2	1584.9	1790.0	1983.1	1953.2	1923.4	1969.2	1967.2
67.5°	27729.4	10401.3	1481.3	1423.6	1505.2	1686.4	1875.6	1859.6	1843.7	1923.4	1919.4
70°	24633.3	8350.5	1346.0	1328.0	1417.6	1574.9	1760.1	1760.1	1750.1	1809.9	1795.9
72.5°	18767.7	5921.4	1216.5	1226.5	1318.1	1453.5	1634.7	1648.6	1632.7	1662.5	1650.6
75°	10046.8	3388.8	1087.1	1115.0	1194.6	1330.0	1495.3	1509.2	1499.3	1497.3	1503.2
77.5°	3339.0	1656.6	951.7	995.5	1065.2	1202.6	1349.9	1371.8	1347.9	1344.0	1342.0
80°	1487.3	1041.3	802.4	860.1	921.9	1057.2	1196.6	1214.5	1188.7	1224.5	1178.7
82.5°	955.7	684.9	643.1	706.8	766.6	911.9	1043.3	1047.3	1023.4	1188.7	1013.4
85°	463.9	424.1	483.8	541.6	593.3	716.8	864.1	866.1	806.4	734.7	708.8
87.5°	231.0	246.9	322.6	374.3	400.2	491.8	629.2	617.2	591.3	537.6	495.8
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)