

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: P298963

Luminaire Tested: **GLNA-AF-09-LED-E1-T2-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298963
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-T2-7027-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 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: 36528.9 lumens
Efficiency: N/A
Efficacy: 97.7 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 - G4

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

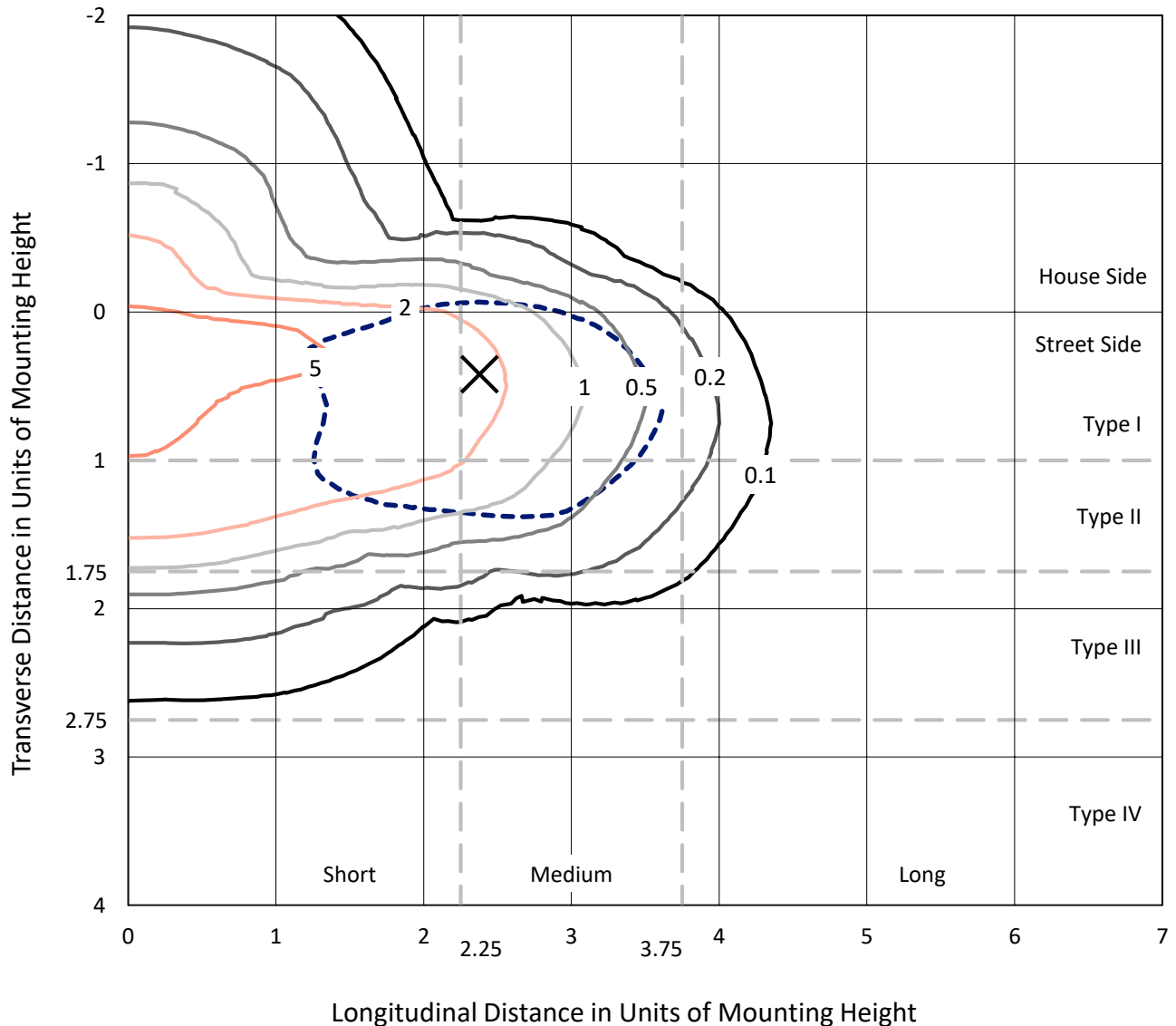


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

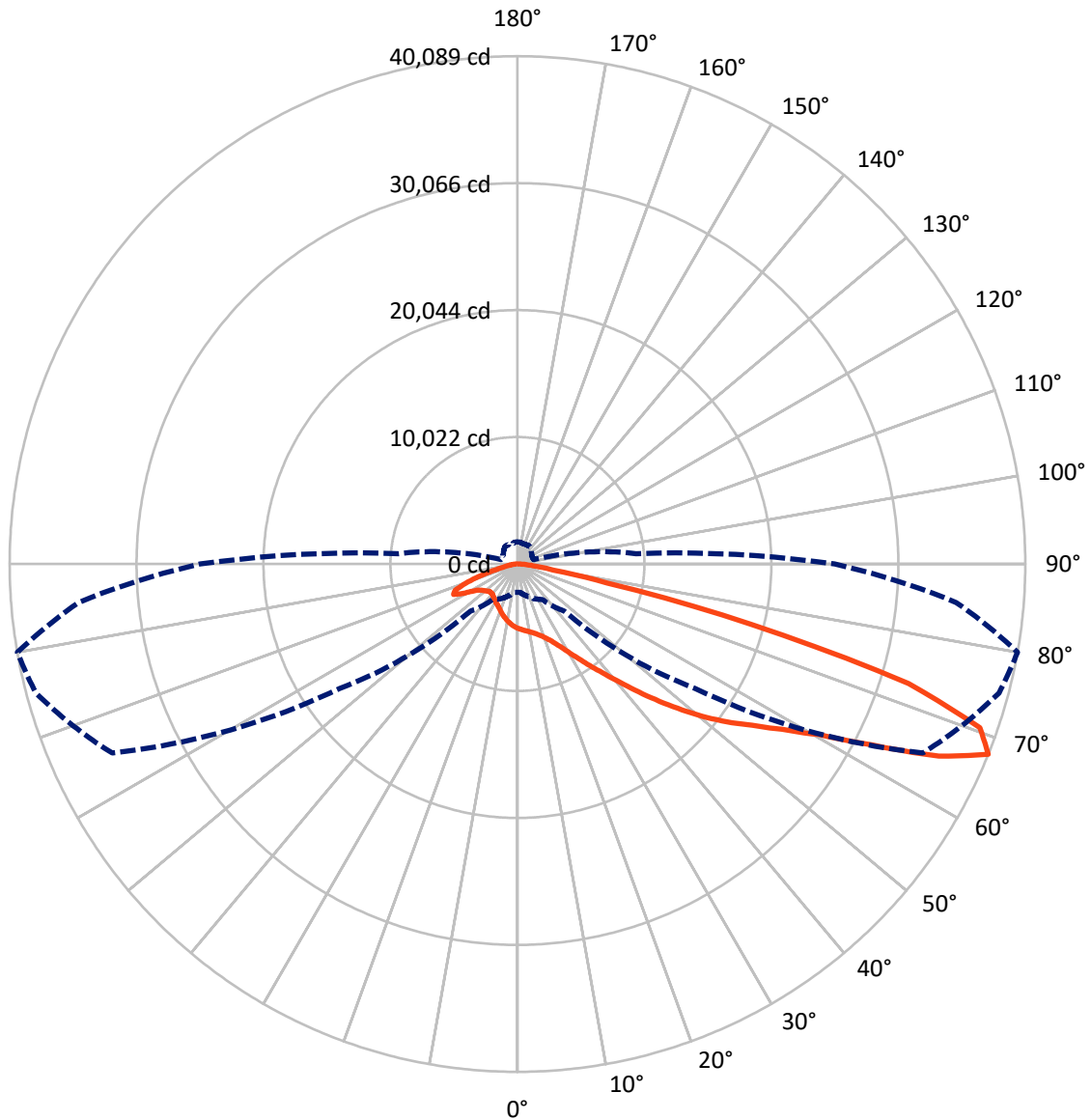


Based on 30 foot mounting height. Maximum calculated value = 6.9 fc
 Type II - Medium - Full Cutoff

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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	6727.2	0.0	6727.2
	% Fixture	18.4	0.0	18.4
Street Side	Lumens	29801.6	0.0	29801.6
	% Fixture	81.6	0.0	81.6
Total	Lumens	36528.9	0.0	36528.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	468.1	1.3
10°-20°	1348.6	3.7
20°-30°	2232.2	6.1
30°-40°	3651.3	10.0
40°-50°	5895.3	16.1
50°-60°	8511.1	23.3
60°-70°	9392.6	25.7
70°-80°	4329.4	11.9
80°-90°	700.3	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°	36528.9	100.0
0°-180°	36528.9	100.0



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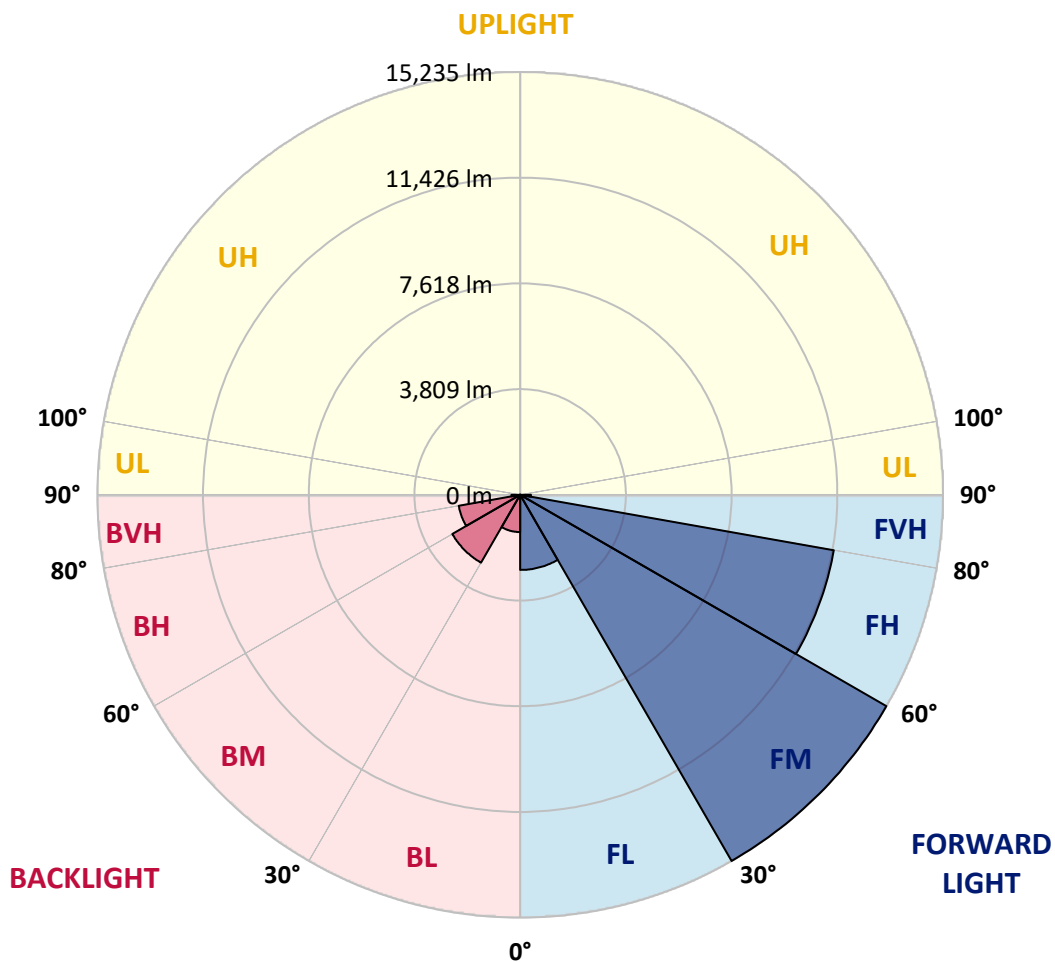
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2706.7	7.4			
FM (30°-60°)	15235.3	41.7			
FH (60°-80°)	11474.7	31.4			G4/12000
FVH (80°-90°)	385.0	1.1			G3/500
BL (0°-30°)	1342.2	3.7	B3/2500		
BM (30°-60°)	2822.5	7.7	B3/5000		
BH (60°-80°)	2247.3	6.2	B3/2500		G3/2500
BVH (80°-90°)	315.3	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-G4

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	80°	85°
0°	5074.9	5074.9	5074.9	5074.9	5074.9	5074.9	5074.9	5074.9	5074.9	5074.9	5074.9
2.5°	5551.5	5519.1	5524.5	5515.5	5488.5	5441.8	5391.4	5299.7	5204.4	5154.0	5114.5
5°	6015.5	6006.5	5993.9	5965.1	5896.8	5799.7	5679.2	5517.3	5342.9	5251.2	5163.0
7.5°	6362.5	6357.1	6341.0	6323.0	6256.4	6139.5	5957.9	5727.7	5474.2	5348.3	5211.6
10°	6391.3	6400.3	6412.9	6461.4	6470.4	6407.5	6222.3	5943.5	5610.8	5449.0	5274.5
12.5°	6146.7	6166.5	6215.1	6339.2	6470.4	6547.8	6452.5	6170.1	5770.9	5574.9	5353.7
15°	5823.0	5833.8	5893.2	6064.0	6299.6	6538.8	6628.7	6420.1	5977.7	5736.7	5472.4
17.5°	5684.6	5690.0	5731.3	5844.6	6064.0	6405.7	6727.6	6691.6	6231.3	5938.1	5618.0
20°	5614.4	5627.0	5686.4	5797.9	5936.3	6234.9	6742.0	6984.8	6533.4	6189.9	5801.5
22.5°	5814.0	5808.6	5830.2	5886.0	6002.9	6182.7	6731.2	7286.9	6918.2	6513.6	6040.6
25°	6279.8	6299.6	6261.8	6198.9	6236.6	6362.5	6788.7	7614.2	7400.2	6929.0	6353.5
27.5°	6943.4	6923.6	6867.9	6720.4	6643.1	6697.0	6979.4	7966.7	7999.0	7475.7	6767.2
30°	7605.2	7589.0	7535.1	7355.2	7197.0	7152.0	7349.8	8371.3	8713.0	8132.1	7274.3
32.5°	8292.2	8274.2	8223.8	8044.0	7853.4	7749.1	7876.7	8838.9	9554.6	8916.2	7871.3
35°	9139.2	9105.0	8998.9	8748.9	8561.9	8481.0	8540.3	9426.9	10525.7	9844.1	8596.1
37.5°	9935.8	9988.0	9880.1	9534.8	9292.0	9263.3	9329.8	10144.4	11572.3	10881.8	9428.7
40°	10736.1	10745.1	10648.0	10365.6	10115.7	10068.9	10236.2	11014.8	12807.8	12122.6	10441.2
42.5°	11563.3	11581.3	11417.7	11156.9	10973.5	10982.5	11173.1	12034.5	14224.9	13584.7	11606.5
45°	12543.4	12570.4	12390.6	12048.9	11881.6	12217.9	12138.8	13178.2	15778.7	15246.3	12944.5
47.5°	13568.5	13609.9	13473.2	13153.1	12944.5	13406.6	13104.5	14446.1	17451.1	17028.5	14413.7
50°	14127.8	14187.1	14320.2	14296.8	14251.9	14174.5	14181.7	15805.6	19175.7	18884.4	15924.3
52.5°	13827.5	13825.7	14311.2	14901.1	15530.5	15577.2	15494.5	17238.9	20787.0	20698.9	17346.8
55°	12453.5	12547.0	13282.6	14424.5	16143.7	17217.3	17461.9	18880.8	22369.6	22472.1	18790.9
57.5°	10166.0	10243.4	11236.0	12827.6	15316.5	18192.0	20260.1	21267.2	24139.1	24617.5	20713.3
60°	6894.8	6988.4	8040.4	9952.0	13090.1	17648.9	22923.5	25525.7	26257.6	27345.6	23410.8
62.5°	4051.7	4136.2	4994.0	6278.0	9216.5	15125.9	24092.4	31584.3	29622.3	31462.0	27525.4
65°	2789.2	2846.8	3264.0	3907.8	5296.1	10187.6	22642.9	35767.2	34799.7	36562.1	32296.4
67.5°	2244.3	2237.1	2568.0	3006.8	3409.7	5253.0	17122.0	35294.3	39353.1	40088.6	34772.7
70°	1848.7	1841.5	2066.3	2429.6	2724.5	2958.3	9326.2	29784.1	38425.2	38723.7	32492.4
72.5°	1546.6	1553.8	1697.6	1967.4	2235.3	2228.1	4098.4	20952.5	30228.3	32292.8	25901.5
75°	1305.6	1309.2	1404.5	1595.1	1814.5	1794.7	2222.8	11351.1	17571.6	19008.5	14358.0
77.5°	1111.4	1115.0	1176.1	1282.2	1438.7	1431.5	1622.1	4904.1	7330.0	7240.1	4911.3
80°	990.9	990.9	1019.7	1039.4	1125.8	1093.4	1203.1	2355.8	3098.5	2861.2	1960.2
82.5°	776.9	780.5	956.7	949.5	886.6	845.2	845.2	1388.3	1641.9	1517.8	1147.3
85°	437.0	435.2	616.8	744.5	780.5	595.3	589.9	776.9	893.8	787.7	555.7
87.5°	187.0	190.6	285.9	330.9	442.4	370.5	365.1	401.0	455.0	393.8	257.2
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°	5074.9	5074.9	5074.9	5074.9	5074.9	5074.9	5074.9	5074.9	5074.9	5074.9	5074.9
2.5°	5076.7	5030.0	4927.5	4799.8	4684.7	4609.2	4540.8	4441.9	4447.3	4379.0	4328.6
5°	5073.1	4976.0	4738.6	4456.3	4184.7	3988.7	3841.3	3708.2	3675.8	3612.9	3575.1
7.5°	5076.7	4918.5	4519.2	4067.8	3731.6	3483.4	3357.5	3287.4	3271.2	3249.6	3251.4
10°	5089.3	4866.3	4278.3	3704.6	3352.1	3188.5	3157.9	3179.5	3204.6	3211.8	3213.6
12.5°	5118.1	4819.6	4013.9	3380.9	3114.7	3064.4	3116.5	3190.3	3238.8	3262.2	3260.4
15°	5182.8	4783.6	3760.3	3127.3	2983.4	3010.4	3107.5	3211.8	3282.0	3314.3	3316.1
17.5°	5253.0	4731.4	3499.6	2933.1	2886.3	2954.7	3075.2	3197.5	3283.8	3319.7	3326.9
20°	5344.7	4666.7	3226.2	2787.4	2794.6	2872.0	2985.2	3107.5	3202.8	3233.4	3247.8
22.5°	5465.2	4596.6	2987.0	2668.7	2690.3	2749.7	2837.8	2943.9	3026.6	3041.0	3053.6
25°	5627.0	4521.0	2796.4	2560.8	2569.8	2604.0	2663.3	2726.3	2783.8	2767.6	2780.2
27.5°	5844.6	4456.3	2654.4	2461.9	2445.7	2452.9	2483.5	2503.3	2533.9	2488.9	2494.3
30°	6100.0	4386.2	2544.7	2375.6	2330.7	2318.1	2325.3	2336.0	2359.4	2298.3	2289.3
32.5°	6396.7	4301.6	2442.1	2300.1	2237.1	2212.0	2215.6	2244.3	2334.2	2296.5	2276.7
35°	6742.0	4206.3	2334.2	2217.4	2174.2	2138.2	2134.6	2224.5	2492.5	2469.1	2451.1
37.5°	7146.6	4111.0	2226.3	2123.8	2127.4	2087.9	2075.3	2177.8	2523.1	2431.4	2418.8
40°	7660.9	4060.7	2134.6	2024.9	2069.9	2064.5	2039.3	2091.5	2321.7	2154.4	2132.8
42.5°	8297.5	4067.8	2066.3	1918.8	2001.6	2059.1	2019.5	2021.3	2104.1	1978.2	1958.4
45°	9083.4	4152.4	2017.7	1834.3	1924.2	2053.7	2012.3	1983.6	1990.8	1924.2	1913.4
47.5°	10000.6	4326.8	1983.6	1764.2	1850.5	2033.9	2010.5	1972.8	1956.6	1920.6	1911.6
50°	11020.2	4580.4	1958.4	1697.6	1784.0	2001.6	2012.3	1962.0	1944.0	1929.6	1924.2
52.5°	12021.9	4869.9	1920.6	1640.1	1731.8	1962.0	2017.7	1951.2	1931.4	1920.6	1915.2
55°	13138.7	5231.4	1863.1	1591.5	1688.6	1911.6	2017.7	1935.0	1913.4	1915.2	1913.4
57.5°	14647.5	5815.8	1794.7	1550.2	1636.5	1850.5	1983.6	1917.0	1890.1	1891.9	1893.7
60°	17005.1	6846.3	1712.0	1508.8	1571.8	1778.6	1936.8	1877.5	1850.5	1857.7	1859.5
62.5°	20472.3	8358.7	1604.1	1447.7	1503.4	1701.2	1872.1	1827.1	1800.1	1818.1	1818.1
65°	24076.2	9693.1	1471.0	1370.3	1431.5	1616.7	1791.1	1764.2	1737.2	1778.6	1776.8
67.5°	25045.5	9394.5	1338.0	1285.8	1359.5	1523.2	1694.0	1679.7	1665.3	1737.2	1733.6
70°	22249.1	7542.2	1215.7	1199.5	1280.4	1422.5	1589.7	1589.7	1580.7	1634.7	1622.1
72.5°	16951.2	5348.3	1098.8	1107.8	1190.5	1312.8	1476.4	1489.0	1474.6	1501.6	1490.8
75°	9074.4	3060.8	981.9	1007.1	1079.0	1201.3	1350.6	1363.1	1354.2	1352.4	1357.7
77.5°	3015.8	1496.2	859.6	899.2	962.1	1086.2	1219.3	1239.1	1217.5	1213.9	1212.1
80°	1343.4	940.5	724.7	776.9	832.6	954.9	1080.8	1097.0	1073.6	1106.0	1064.6
82.5°	863.2	618.6	580.9	638.4	692.4	823.6	942.3	945.9	924.3	1073.6	915.4
85°	419.0	383.0	437.0	489.1	535.9	647.4	780.5	782.3	728.3	663.6	640.2
87.5°	208.6	223.0	291.3	338.1	361.5	444.2	568.3	557.5	534.1	485.6	447.8
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)