

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: P299995

Luminaire Tested: **GLNA-AF-02-LED-E1-SL3-7060-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299995
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194479)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-02-LED-E1-SL3-7060-HSS
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 5700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
w/Spill Control WITH HOUSESIDE SHEILD OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9450.9 lumens
Efficiency: N/A
Efficacy: 83.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B1 - U0 - G2

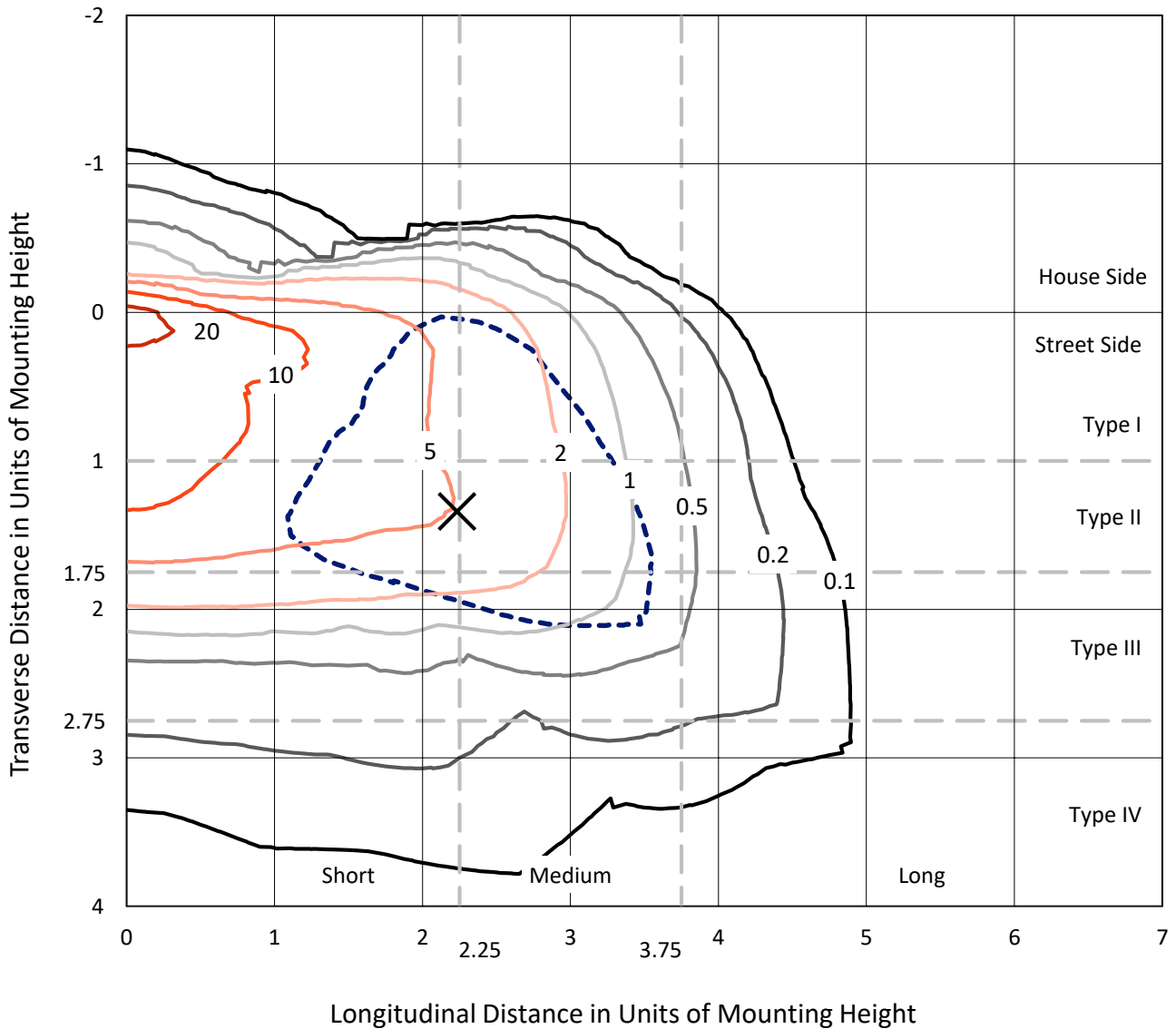
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

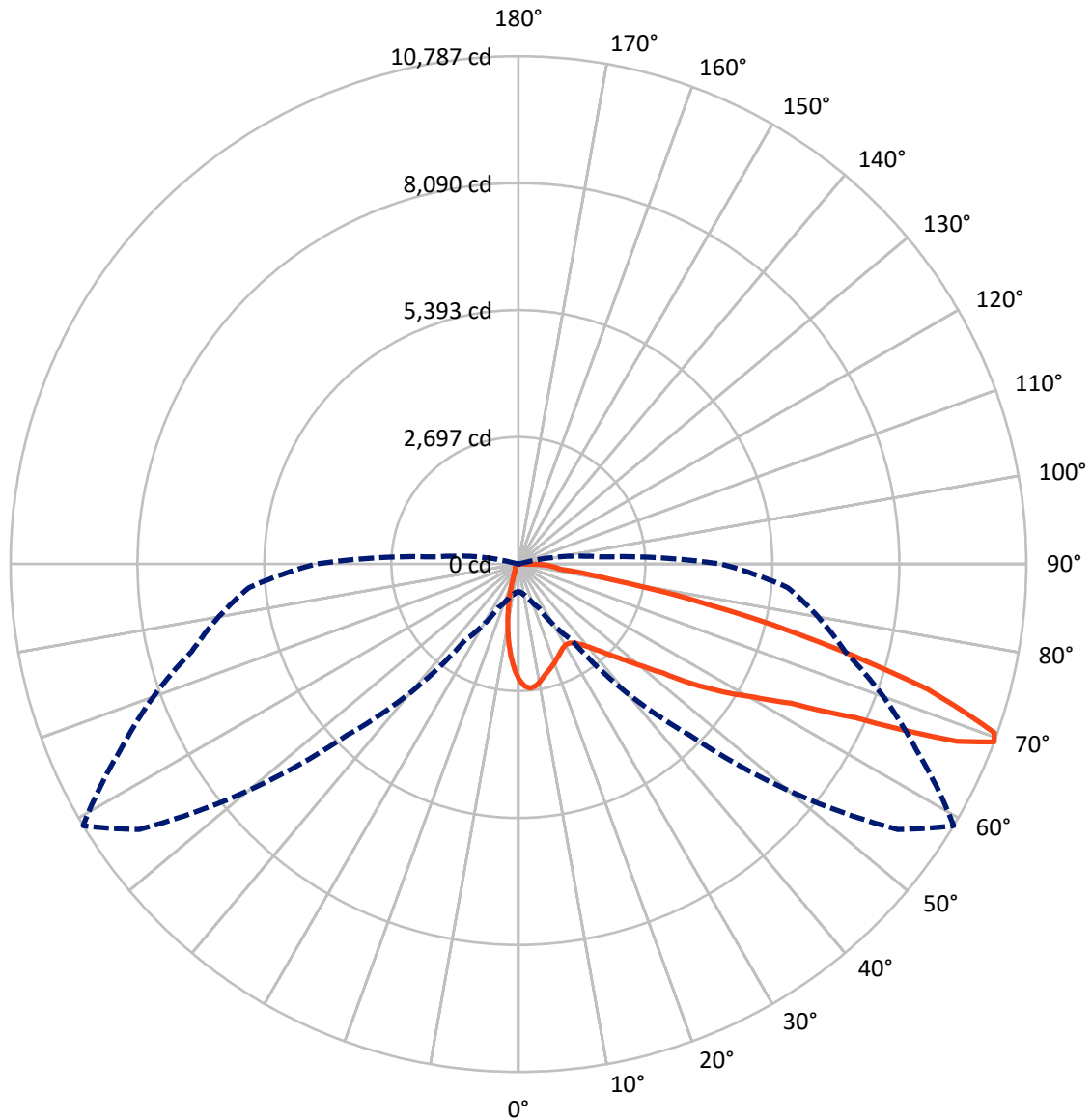
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 24.7 fc
 Type III - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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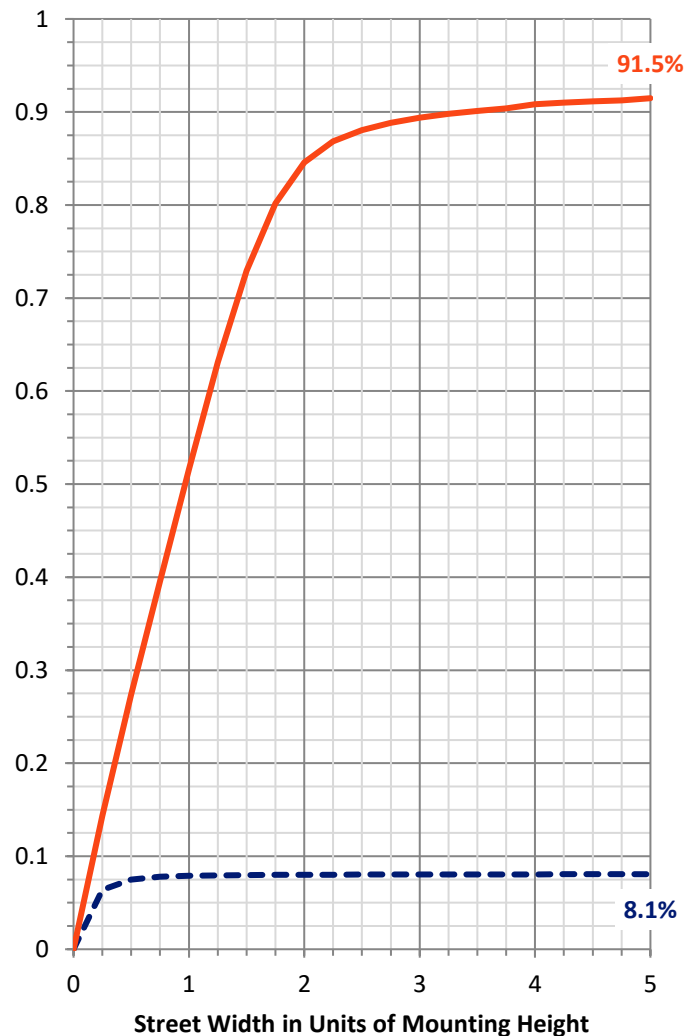
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	769.6	0.0	769.6
	% Fixture	8.1	0.0	8.1
Street Side	Lumens	8681.2	0.0	8681.2
	% Fixture	91.9	0.0	91.9
Total	Lumens	9450.9	0.0	9450.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	199.7	2.1
10°-20°	412.6	4.4
20°-30°	555.2	5.9
30°-40°	806.1	8.5
40°-50°	1342.2	14.2
50°-60°	2093.8	22.2
60°-70°	2590.9	27.4
70°-80°	1313.1	13.9
80°-90°	137.4	1.5
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°	9450.9	100.0
0°-180°	9450.9	100.0



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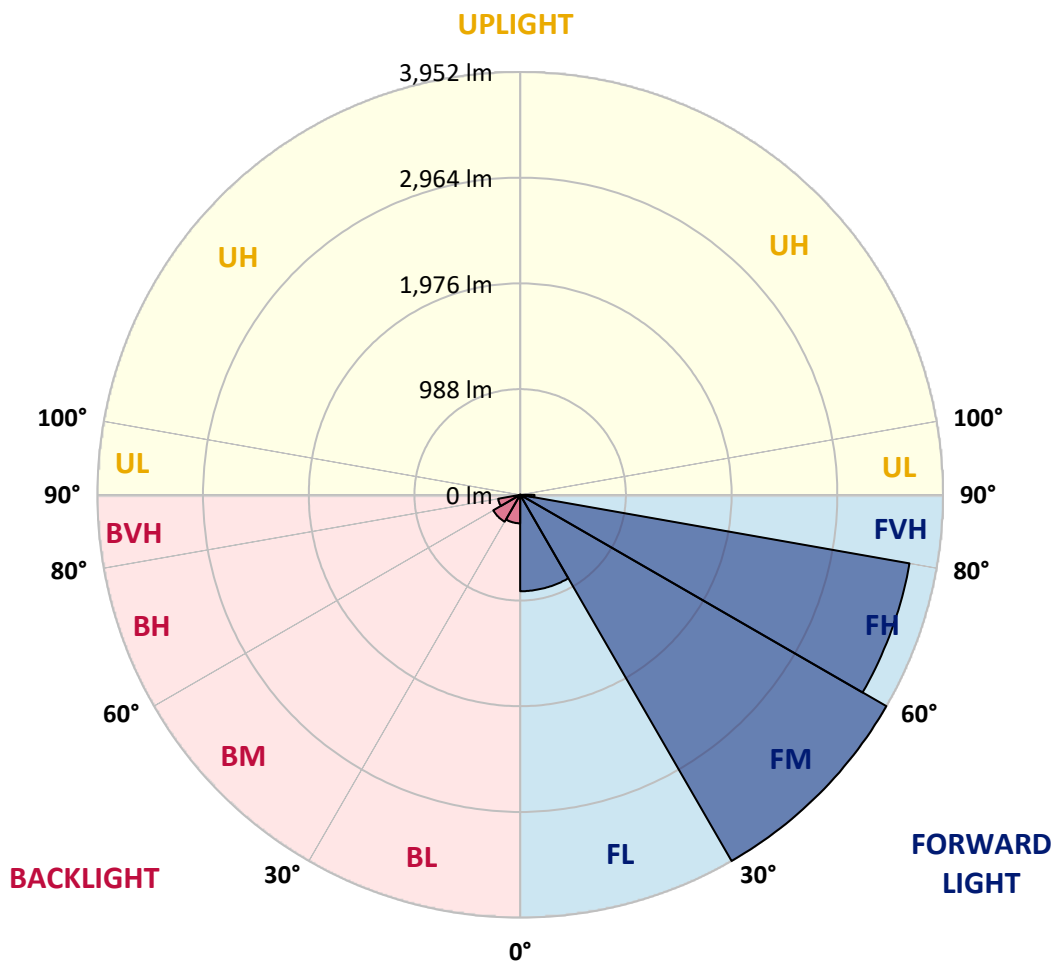
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	901.0	9.5			
FM (30°-60°)	3952.1	41.8			
FH (60°-80°)	3695.0	39.1			G2/5000
FVH (80°-90°)	133.2	1.4			G2/225
BL (0°-30°)	266.4	2.8	B1/500		
BM (30°-60°)	290.0	3.1	B1/1000		
BH (60°-80°)	209.0	2.2	B1/500		G1/500
BVH (80°-90°)	4.2	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	2459.9	2459.9	2459.9	2459.9	2459.9	2459.9	2459.9	2459.9	2459.9	2459.9	2459.9
2.5°	2696.1	2695.1	2683.3	2678.0	2668.3	2648.1	2616.5	2600.0	2573.3	2526.7	2464.3
5°	2671.5	2684.5	2691.3	2691.9	2698.9	2691.3	2662.9	2649.2	2612.3	2537.4	2425.3
7.5°	2504.9	2509.6	2529.5	2546.4	2579.6	2611.2	2621.4	2615.4	2593.5	2513.4	2364.3
10°	2326.4	2331.1	2354.7	2377.0	2422.0	2470.6	2521.9	2532.7	2541.8	2479.1	2305.5
12.5°	2172.4	2177.2	2201.3	2230.6	2283.0	2342.9	2422.5	2440.1	2480.3	2446.6	2258.4
15°	2039.8	2041.9	2065.6	2101.8	2164.4	2241.3	2331.7	2360.1	2421.5	2423.6	2217.3
17.5°	1927.1	1932.4	1947.0	1981.6	2050.0	2145.2	2250.5	2291.1	2363.1	2404.4	2177.2
20°	1858.1	1863.5	1863.0	1882.2	1943.7	2045.2	2169.3	2217.8	2305.5	2384.6	2141.5
22.5°	1844.9	1844.9	1831.0	1828.2	1864.6	1949.6	2084.8	2144.0	2253.6	2376.1	2116.4
25°	1892.4	1890.2	1855.6	1827.2	1828.9	1879.5	2003.0	2073.5	2209.9	2381.9	2102.9
27.5°	1992.9	1990.2	1946.3	1892.4	1849.1	1848.6	1941.0	2016.9	2175.1	2409.7	2108.3
30°	2131.7	2130.8	2083.2	2015.2	1936.8	1864.6	1919.6	1988.6	2152.6	2459.9	2120.6
32.5°	2283.5	2281.9	2246.1	2174.6	2075.1	1936.8	1942.1	1999.9	2159.1	2526.7	2150.5
35°	2444.5	2441.8	2426.2	2363.8	2254.2	2069.8	2015.9	2060.7	2199.7	2626.7	2209.3
37.5°	2618.6	2621.4	2632.5	2572.7	2457.8	2256.3	2139.4	2169.8	2281.4	2762.5	2304.9
40°	2875.7	2875.2	2879.0	2800.3	2689.8	2484.5	2311.8	2321.5	2418.3	2942.5	2450.3
42.5°	3342.2	3309.7	3210.8	3050.5	2939.3	2745.3	2529.5	2519.3	2585.6	3165.3	2653.9
45°	3969.2	3899.6	3643.1	3335.9	3193.7	3039.3	2797.1	2764.6	2806.8	3433.1	2905.2
47.5°	4508.3	4436.1	4073.4	3633.0	3463.5	3318.2	3110.8	3052.1	3066.0	3732.9	3223.6
50°	4691.6	4656.4	4339.5	3891.7	3724.9	3669.4	3474.9	3403.2	3383.5	4079.7	3592.8
52.5°	4628.0	4625.4	4414.3	4059.5	3964.3	4032.8	3932.8	3849.9	3777.3	4445.4	3968.5
55°	4525.9	4539.4	4444.7	4206.4	4203.1	4364.6	4559.1	4490.2	4279.7	4842.4	4292.5
57.5°	4244.4	4301.5	4427.7	4484.4	4615.7	4780.9	5080.8	5121.4	4872.4	5146.5	4561.2
60°	3443.8	3569.4	3982.0	4524.3	5147.6	5559.0	5710.3	5745.0	5358.6	5399.2	4924.1
62.5°	2444.5	2572.7	3095.9	4013.5	5155.5	6581.3	6648.1	6511.9	5894.1	5773.9	5550.0
65°	1297.5	1396.5	1824.0	2897.1	4470.0	6818.7	8288.3	7882.2	6838.9	6510.8	6358.5
67.5°	663.7	693.6	863.7	1417.9	3073.0	6056.6	9758.5	10044.4	8467.3	7242.0	6319.5
69°	587.3	605.0	717.8	1025.0	1967.7	5129.9	9830.1	10786.7	9319.8	7181.0	5742.9
70°	568.6	584.1	686.7	927.8	1538.1	4302.0	9555.9	10721.5	9537.8	6949.1	5312.1
72.5°	482.7	495.9	611.5	819.9	1250.1	2135.5	7762.5	9085.2	8558.7	5788.8	3845.1
75°	322.8	366.6	586.9	768.6	1162.9	1213.2	5117.7	6565.3	6098.8	3904.5	2003.0
77.5°	77.5	83.3	165.7	611.5	1063.5	1067.7	2632.0	4081.3	3328.9	1391.7	473.4
80°	41.7	40.1	46.4	121.4	990.2	1002.0	1184.9	1981.1	1188.6	230.9	156.0
82.5°	29.4	27.8	29.9	50.8	311.6	912.7	857.2	896.7	492.7	88.7	70.1
85°	10.7	10.2	16.5	46.0	97.7	524.7	880.7	739.6	399.2	40.6	51.3
87.5°	3.7	3.2	6.5	25.1	29.9	223.4	543.5	559.0	157.1	24.6	24.1
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°	2459.9	2459.9	2459.9	2459.9	2459.9	2459.9	2459.9	2459.9	2459.9	2459.9	2459.9
2.5°	2438.0	2404.9	2344.0	2281.4	2223.7	2154.2	2119.5	2085.3	2070.9	2065.6	2040.5
5°	2367.5	2311.3	2182.1	2052.1	1932.4	1805.2	1721.4	1654.1	1614.5	1595.2	1564.8
7.5°	2277.2	2185.3	1989.0	1788.7	1602.2	1418.4	1282.1	1177.3	1105.1	1070.5	1038.9
10°	2189.5	2067.2	1788.2	1515.1	1261.7	1018.1	829.9	693.6	606.6	566.5	540.9
12.5°	2111.0	1952.3	1594.2	1248.5	930.4	645.1	453.7	345.3	291.2	272.5	263.4
15°	2041.0	1846.5	1410.9	995.1	630.1	368.7	248.0	211.2	202.6	202.6	201.4
17.5°	1974.6	1742.8	1233.9	757.2	395.4	225.6	188.7	183.8	183.8	185.9	185.9
20°	1911.0	1643.9	1062.9	543.5	249.0	179.0	170.5	169.4	170.5	173.1	173.1
22.5°	1856.5	1554.1	903.2	373.0	184.9	161.3	157.1	155.5	156.0	157.6	158.7
25°	1815.9	1478.2	752.5	252.7	159.2	146.9	142.2	139.5	137.4	137.4	138.3
27.5°	1790.3	1414.2	606.6	183.8	143.2	133.6	126.0	121.8	117.0	114.4	115.4
30°	1771.6	1353.2	469.7	150.2	128.3	118.6	109.1	102.1	95.1	91.9	93.0
32.5°	1764.6	1304.0	351.1	132.5	114.9	104.2	92.4	83.3	75.9	73.1	73.8
35°	1783.4	1265.0	257.1	119.7	104.2	90.8	77.5	67.3	61.5	59.9	60.4
37.5°	1832.6	1244.1	192.4	109.1	94.7	79.6	64.7	55.0	51.3	51.3	51.8
40°	1925.4	1243.6	154.5	101.6	86.1	68.9	53.4	46.4	44.3	45.5	46.0
42.5°	2061.2	1271.9	134.6	94.7	78.6	58.7	44.3	39.5	39.0	40.1	40.6
45°	2246.6	1323.7	123.9	88.7	70.5	49.2	37.4	34.1	34.1	35.8	36.4
47.5°	2473.8	1399.6	114.9	82.8	62.5	41.1	32.0	29.9	30.4	32.0	32.5
50°	2747.4	1495.4	105.8	76.4	56.6	34.1	27.8	26.2	26.7	28.8	29.4
52.5°	3059.0	1624.2	98.4	70.5	49.2	28.3	23.5	22.5	23.5	25.7	26.2
55°	3326.2	1739.5	89.3	65.7	39.5	23.5	19.3	19.3	20.4	23.0	23.5
57.5°	3583.3	1860.2	81.2	56.6	31.1	18.8	16.0	16.5	18.1	20.9	21.4
60°	3960.6	2064.9	71.7	47.6	23.5	14.9	13.4	13.9	16.0	18.8	19.3
62.5°	4601.3	2376.6	62.0	39.5	18.1	11.8	10.7	11.8	14.4	17.6	18.1
65°	5179.6	2503.2	50.8	33.2	13.9	9.1	9.1	10.7	13.9	17.2	17.6
67.5°	4857.3	2107.2	39.5	26.2	10.7	7.0	7.4	10.2	13.4	17.2	17.6
69°	4295.7	1723.0	33.7	20.9	9.1	6.5	7.0	10.2	13.4	16.5	17.2
70°	3858.0	1454.8	29.9	17.6	8.1	6.5	7.0	9.5	13.4	16.5	17.2
72.5°	2584.0	785.6	24.1	12.8	7.4	5.8	5.8	9.5	12.8	16.0	16.5
75°	1110.5	217.0	19.3	9.1	6.5	5.3	5.3	9.1	12.3	15.5	16.5
77.5°	203.1	55.0	15.5	8.1	6.5	5.3	4.9	8.6	11.8	14.9	15.5
80°	80.7	27.2	12.3	7.0	5.8	4.9	4.2	8.1	11.2	14.4	14.9
82.5°	48.7	15.5	10.2	6.5	5.8	4.2	3.7	7.0	10.7	13.9	14.4
85°	39.5	10.7	8.1	6.5	5.3	4.2	3.2	6.5	9.5	13.4	13.9
87.5°	19.3	7.4	7.4	5.8	5.3	4.2	3.2	5.8	9.1	12.8	13.4
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)