

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: P300312

Luminaire Tested: **GLNA-AF-03-LED-E1-T4FT-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P300312  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24295)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-03-LED-E1-T4FT-7050  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(3) 70 CRI, 5000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV Forward Throw OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

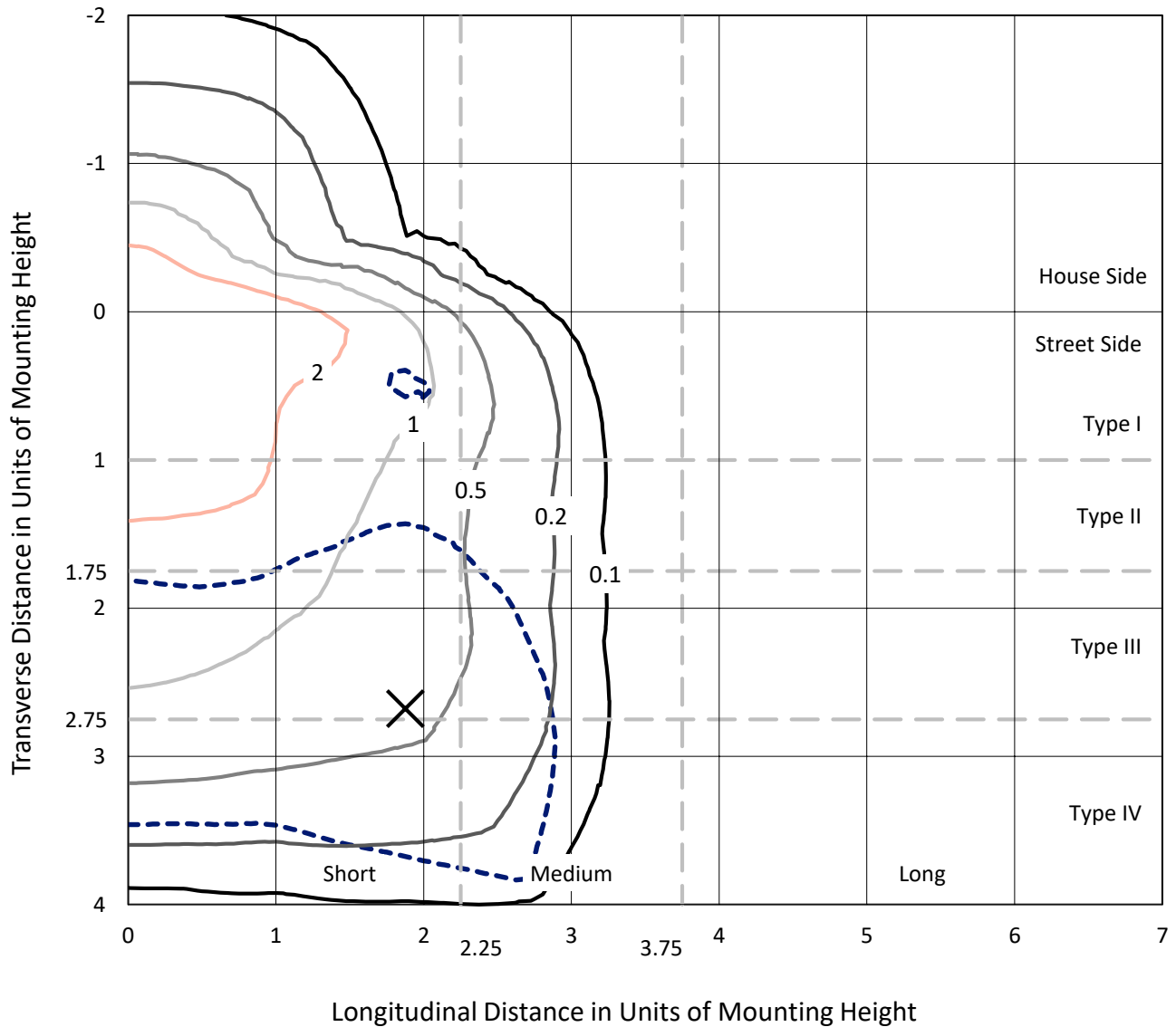
Lumens per Lamp: N/A  
Luminaire Lumens: 18219.7 lumens  
Efficiency: N/A  
Efficacy: 109.8 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B2 - U0 - G3  
  
Input Watts (W): 166  
Input Voltage (V): NR  
Input Current (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

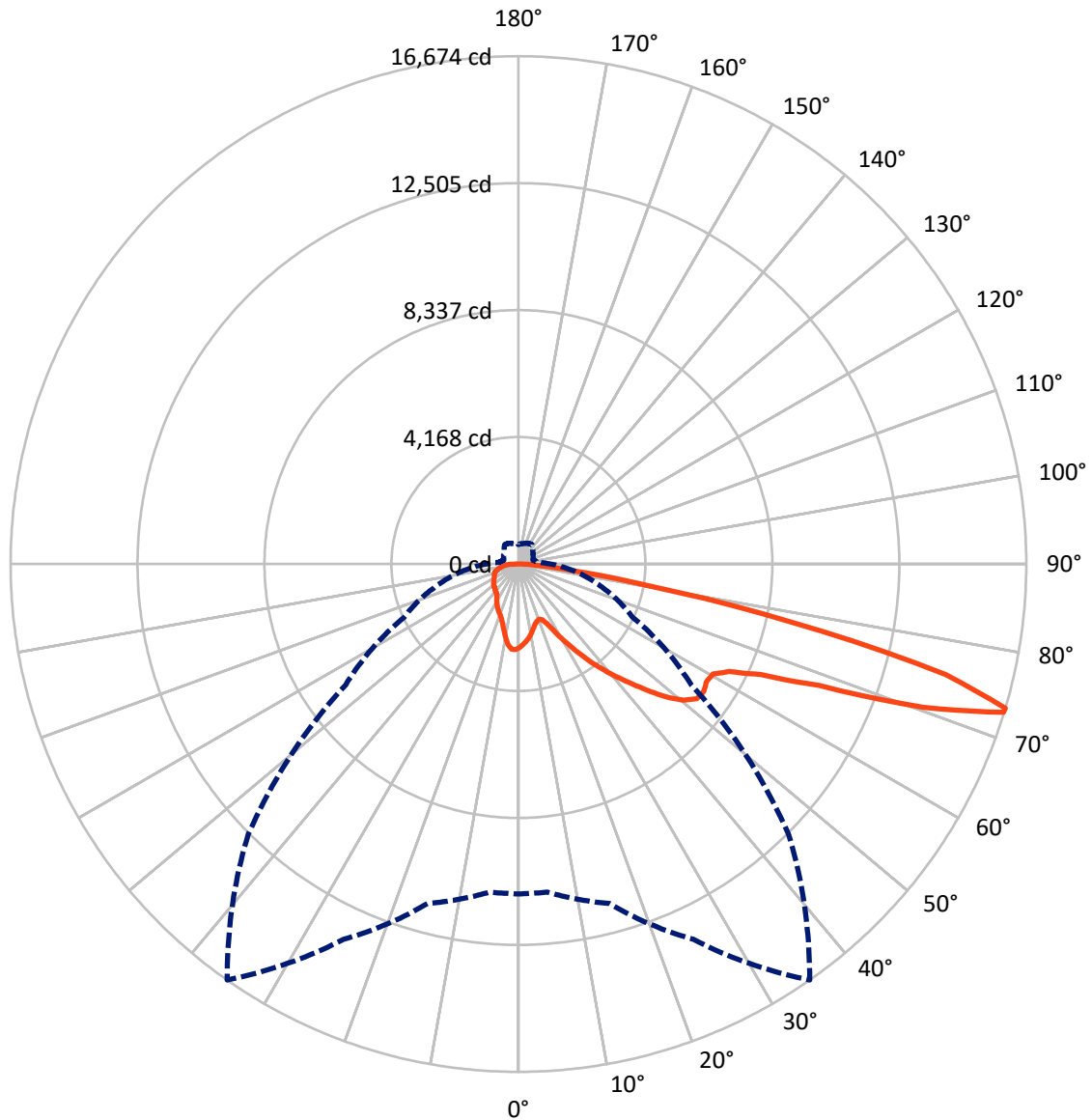
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.4 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral    - - - Horizontal Cone Through 73-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3475.0	0.0	3475.0
	% Fixture	19.1	0.0	19.1
<b>Street Side</b>	Lumens	14744.7	0.0	14744.7
	% Fixture	80.9	0.0	80.9
<b>Total</b>	Lumens	18219.7	0.0	18219.7
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	248.9	1.4
10°-20°	621.3	3.4
20°-30°	1004.5	5.5
30°-40°	1684.4	9.2
40°-50°	2596.4	14.3
50°-60°	3483.3	19.1
60°-70°	4640.5	25.5
70°-80°	3539.3	19.4
80°-90°	401.2	2.2
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°	18219.7	100.0
0°-180°	18219.7	100.0

**Coefficient of Utilization**



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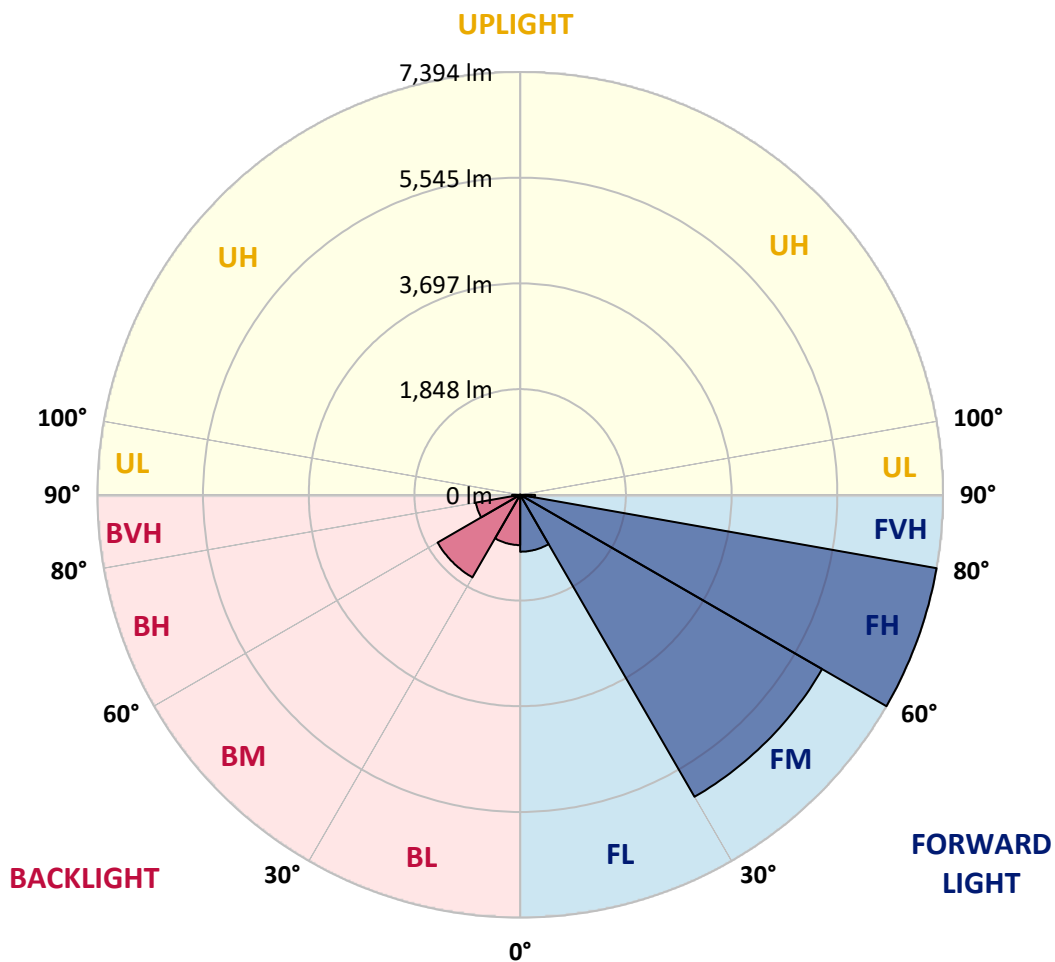
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	995.4	5.5			
FM	(30°-60°)	6096.4	33.5			
FH	(60°-80°)	7393.5	40.6			G3/7500
FVH	(80°-90°)	259.3	1.4			G3/500
BL	(0°-30°)	879.3	4.8	B2/1000		
BM	(30°-60°)	1667.6	9.2	B2/2500		
BH	(60°-80°)	786.2	4.3	B2/1000		G2/1000
BVH	(80°-90°)	141.9	0.8			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G3**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2749.9	2749.9	2749.9	2749.9	2749.9	2749.9	2749.9	2749.9	2749.9	2749.9	2749.9
2.5°	2641.4	2646.7	2640.5	2648.4	2661.5	2675.5	2685.2	2699.2	2714.9	2736.8	2742.0
5°	2517.2	2525.1	2525.1	2539.1	2564.4	2587.2	2608.2	2630.9	2664.2	2701.8	2716.7
7.5°	2380.7	2385.1	2392.9	2413.9	2450.7	2483.1	2512.8	2549.6	2595.1	2644.9	2671.2
10°	2216.2	2222.3	2234.6	2264.3	2314.2	2358.8	2401.7	2452.4	2510.2	2572.3	2605.6
12.5°	2099.8	2098.1	2103.3	2125.2	2169.0	2223.2	2285.3	2350.1	2420.9	2493.6	2533.8
15°	2060.5	2050.8	2030.7	2025.5	2049.1	2103.3	2175.1	2254.7	2339.6	2427.1	2476.9
17.5°	2085.0	2068.3	2013.2	1973.0	1969.5	2010.6	2086.7	2176.0	2274.0	2380.7	2442.8
20°	2239.0	2199.6	2064.0	1970.3	1938.0	1958.1	2024.6	2119.1	2234.6	2376.3	2455.9
22.5°	2607.3	2549.6	2261.7	2087.6	1978.2	1953.7	2003.6	2104.2	2239.0	2430.6	2532.1
25°	3143.6	3061.4	2601.2	2379.8	2154.1	2023.7	2035.1	2138.3	2301.1	2556.6	2679.0
27.5°	3567.1	3513.7	3044.8	2791.9	2474.3	2212.7	2137.5	2224.1	2427.9	2763.0	2888.2
30°	3819.1	3786.7	3519.0	3259.1	2882.9	2513.7	2333.4	2385.1	2626.5	3049.1	3152.4
32.5°	4111.3	4092.1	3960.8	3722.0	3323.9	2909.2	2644.0	2625.7	2892.5	3393.0	3440.2
35°	4414.0	4407.9	4330.9	4159.4	3797.2	3430.6	3056.1	2931.9	3182.1	3750.0	3720.2
37.5°	4695.8	4685.3	4640.6	4540.9	4292.4	3990.6	3476.1	3246.0	3494.5	4091.2	3959.1
40°	5214.6	5132.4	4979.2	4904.0	4792.9	4462.2	3809.5	3539.1	3818.2	4416.7	4165.6
42.5°	5847.2	5713.3	5428.1	5324.8	5309.1	4834.0	4036.9	3823.5	4144.6	4739.5	4368.5
45°	6345.0	6219.0	5973.2	5842.8	5900.5	5170.9	4265.3	4127.1	4480.5	5078.1	4577.6
47.5°	6876.1	6678.4	6352.9	6392.3	6518.3	5489.3	4498.0	4453.4	4848.9	5457.0	4837.5
50°	6895.3	6744.0	6601.4	6836.7	7032.7	5782.4	4789.4	4795.5	5299.5	5933.8	5183.1
52.5°	6495.5	6463.1	6689.7	7059.8	7342.4	6014.3	5121.0	5149.0	5876.1	6481.5	5562.8
55°	6355.5	6318.8	6580.4	6982.0	7384.4	6205.9	5480.6	5531.3	6573.4	7059.0	5932.9
57.5°	6696.7	6615.4	6632.9	6945.2	7282.1	6415.9	5872.6	5974.9	7331.1	7563.8	6170.9
60°	7650.4	7476.3	7145.6	7137.7	7337.2	6730.9	6325.8	6450.9	8118.5	7805.3	6078.2
62.5°	8988.2	8814.1	8194.6	7791.3	7761.5	7250.6	6882.2	6915.5	8573.5	7478.1	5512.1
65°	10436.2	10280.5	9588.4	9018.8	8744.1	8111.5	7528.8	7122.8	8424.7	6577.7	4521.7
67.5°	12193.9	12026.8	11431.9	10906.0	10641.8	9500.9	7982.9	6924.2	7480.7	5095.6	3250.4
70°	13423.2	13252.6	13018.1	13444.2	14090.8	11505.4	8041.5	6116.7	5587.3	3386.9	1956.4
72.5°	11819.5	11739.9	12167.7	13962.2	16655.2	12721.5	7268.9	4453.4	3245.1	1798.0	1132.2
73°	10829.0	10811.5	11541.2	13599.1	16673.6	12534.3	6930.3	4139.3	2783.2	1590.6	1035.0
75°	4890.0	5030.9	6630.2	10387.2	14486.3	10328.6	4877.8	2374.6	1572.3	1098.9	781.3
77.5°	1175.0	1224.0	2074.5	4932.9	9148.3	6155.2	2210.1	1174.2	1005.3	776.1	570.5
80°	500.5	517.1	798.8	1822.5	4307.3	2478.7	1018.4	786.6	695.6	541.6	399.8
82.5°	278.2	295.7	453.2	826.8	1738.5	845.2	621.2	547.7	457.6	326.4	259.9
85°	157.5	167.1	265.1	462.0	736.7	339.5	371.8	364.0	258.1	168.0	127.7
87.5°	74.4	80.5	127.7	214.4	288.7	133.0	189.0	208.2	161.9	102.4	66.5
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):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2749.9	2749.9	2749.9	2749.9	2749.9	2749.9	2749.9	2749.9	2749.9	2749.9
2.5°	2748.2	2763.9	2782.3	2791.9	2800.7	2811.2	2821.7	2821.7	2823.4	2824.3
5°	2728.9	2761.3	2790.2	2802.4	2805.0	2805.0	2802.4	2788.4	2776.2	2781.4
7.5°	2688.7	2735.9	2760.4	2756.0	2722.8	2684.3	2651.9	2612.6	2592.4	2588.9
10°	2630.9	2685.2	2689.5	2645.8	2563.6	2481.3	2413.1	2346.6	2315.1	2307.2
12.5°	2567.1	2616.9	2588.9	2498.8	2366.7	2246.8	2160.2	2092.8	2063.1	2055.2
15°	2515.4	2549.6	2478.7	2336.9	2170.7	2043.8	1972.1	1922.2	1901.2	1895.1
17.5°	2488.3	2495.3	2365.8	2174.2	1997.5	1891.6	1847.0	1823.4	1815.5	1811.1
20°	2501.4	2452.4	2258.2	2022.8	1855.7	1781.4	1770.9	1764.7	1763.0	1760.4
22.5°	2567.1	2439.3	2159.3	1879.4	1731.5	1699.1	1707.9	1707.0	1705.2	1703.5
25°	2684.3	2450.7	2063.1	1742.9	1627.4	1620.4	1636.1	1636.1	1629.1	1629.1
27.5°	2839.2	2474.3	1955.5	1613.4	1532.9	1533.8	1546.0	1542.5	1534.6	1529.4
30°	3028.1	2489.2	1829.5	1497.0	1444.5	1441.0	1444.5	1429.6	1406.0	1404.3
32.5°	3221.5	2470.8	1683.4	1393.8	1350.9	1343.0	1340.4	1319.4	1292.3	1284.4
35°	3396.5	2403.4	1534.6	1311.5	1261.7	1244.2	1256.4	1249.4	1224.9	1218.8
37.5°	3524.2	2278.3	1400.8	1238.9	1197.8	1193.4	1201.3	1203.9	1175.0	1168.9
40°	3610.0	2108.6	1286.2	1177.7	1185.5	1168.9	1142.7	1124.3	1115.5	1112.9
42.5°	3679.1	1931.9	1189.9	1148.8	1188.2	1140.0	1083.2	1053.4	1069.2	1076.2
45°	3758.7	1759.5	1109.4	1112.9	1175.0	1106.8	1042.0	1013.2	1019.3	1021.0
47.5°	3868.1	1549.5	1022.8	1055.2	1131.3	1084.0	1016.7	975.6	946.7	933.6
50°	4019.4	1301.0	932.7	990.4	1088.4	1067.4	977.3	933.6	880.2	867.9
52.5°	4124.4	1069.2	858.3	936.2	1049.9	1034.2	945.8	888.9	832.9	822.4
55°	4067.6	888.1	793.6	875.8	999.2	993.0	919.6	843.4	799.7	790.9
57.5°	3783.2	773.4	743.7	818.9	937.1	958.1	884.6	804.9	773.4	767.3
60°	3240.8	701.7	712.2	780.4	886.3	923.1	849.6	783.9	762.9	758.6
62.5°	2514.6	653.6	688.6	752.4	846.9	898.6	830.3	781.3	773.4	768.2
65°	1801.5	615.1	663.2	724.4	811.1	875.8	823.3	777.8	779.6	775.2
67.5°	1224.0	581.0	632.6	692.9	776.1	855.7	813.7	765.6	787.4	782.2
70°	856.6	547.7	596.7	652.7	732.3	827.7	796.2	747.2	745.4	724.4
72.5°	668.4	504.0	547.7	596.7	676.3	788.3	761.2	706.1	677.2	655.3
73°	637.8	493.5	535.5	584.5	664.1	778.7	751.6	694.7	662.3	642.2
75°	527.6	448.0	486.5	530.2	611.6	733.2	704.3	643.1	602.0	589.7
77.5°	414.7	383.2	420.0	459.3	539.0	666.7	634.3	575.7	553.0	542.5
80°	307.1	317.6	350.0	385.0	467.2	595.8	567.0	508.3	609.8	584.5
82.5°	216.1	240.6	270.4	301.9	392.0	526.7	491.7	431.3	446.2	371.0
85°	127.7	157.5	185.5	212.6	282.6	436.6	406.0	343.8	281.7	268.6
87.5°	74.4	87.5	95.4	123.4	194.2	329.0	286.1	254.6	146.1	98.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)