

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: P298993

Luminaire Tested: **GLNA-AF-04-LED-E1-T2-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298993
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-04-LED-E1-T2-7027-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13440.1 lumens
Efficiency: N/A
Efficacy: 104.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 129
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

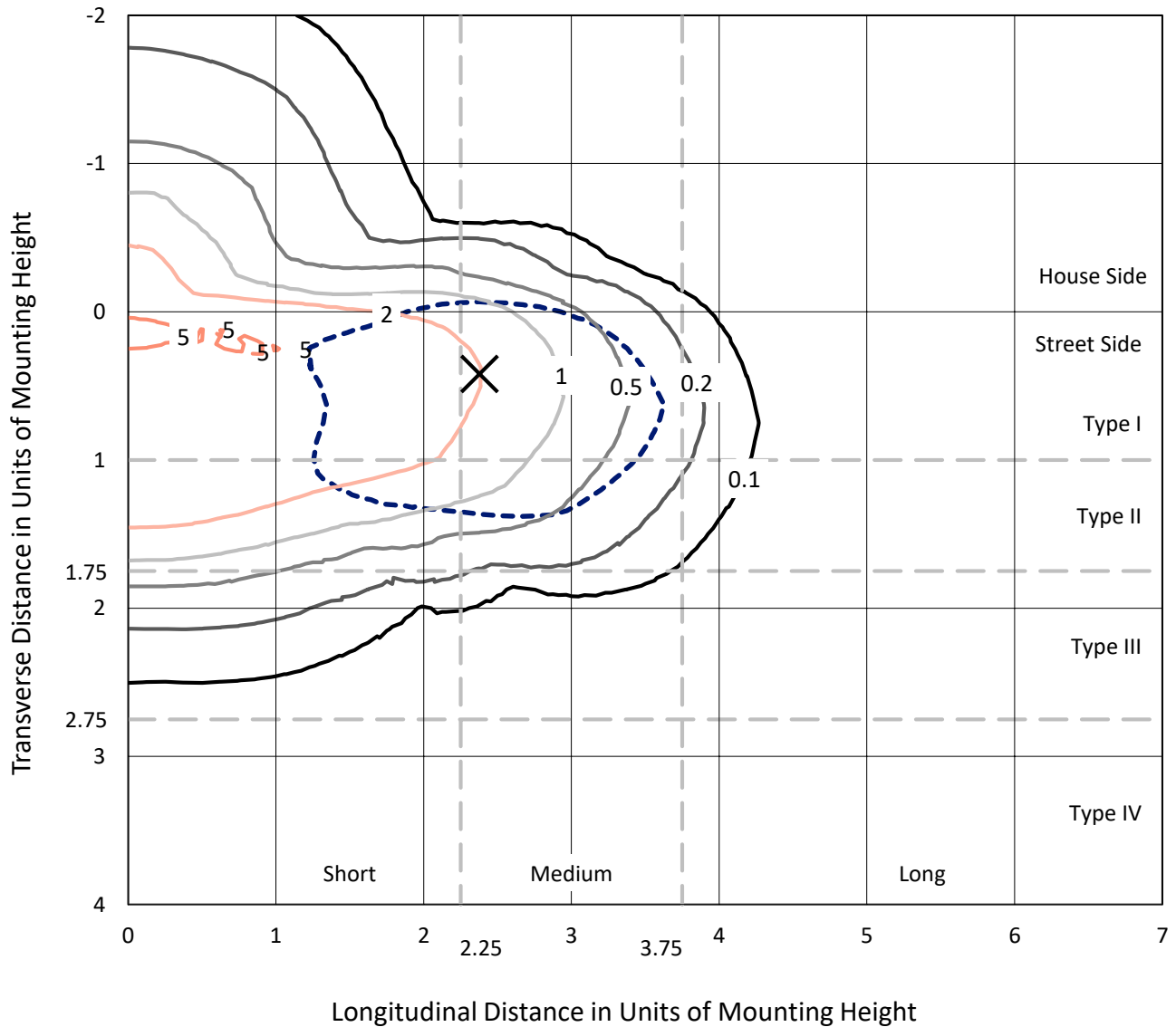


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

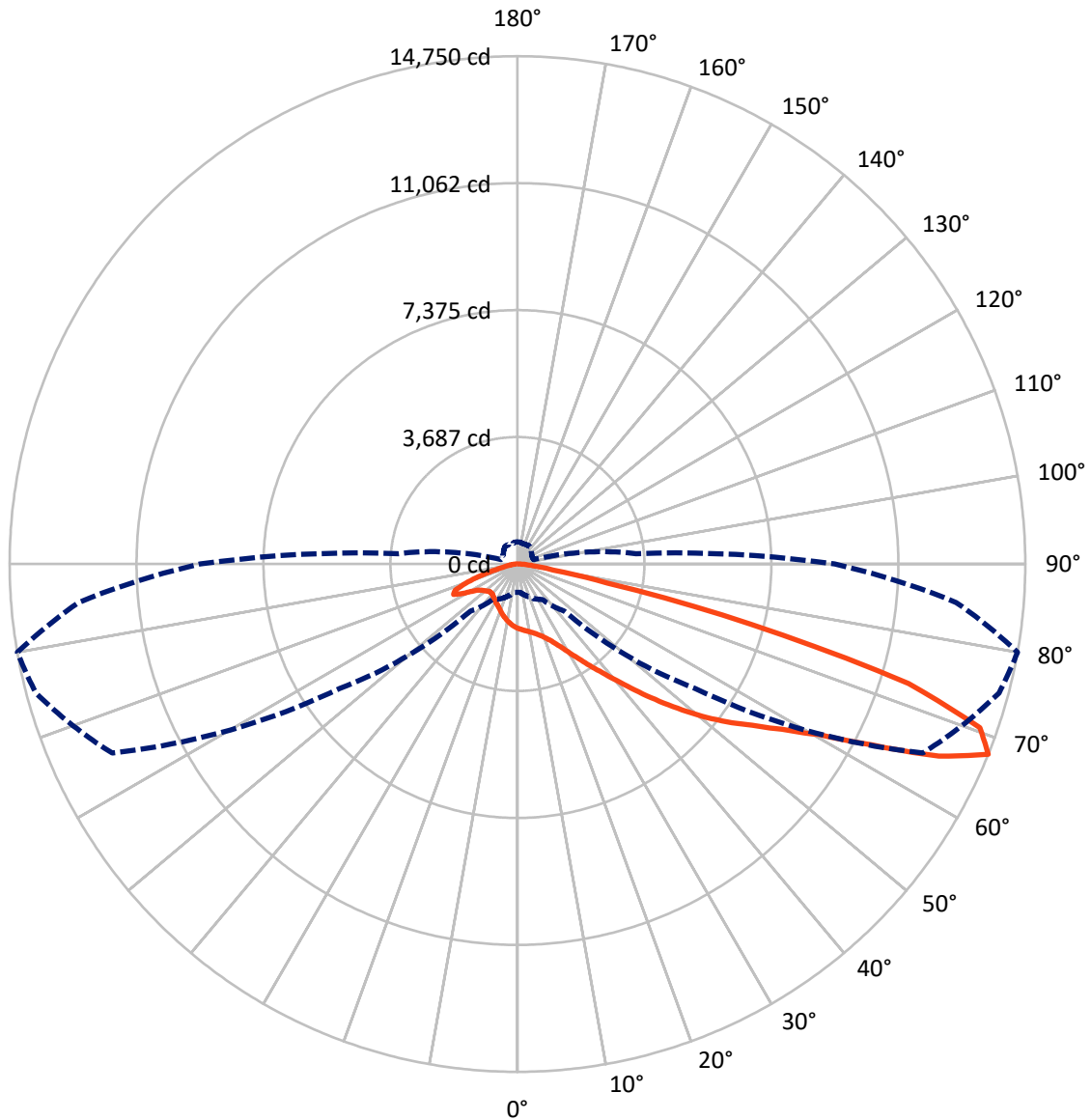


Based on 20 foot mounting height. Maximum calculated value = 5.7 fc
 Type II - Medium - Full Cutoff

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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	2475.2	0.0	2475.2
	% Fixture	18.4	0.0	18.4
Street Side	Lumens	10965.0	0.0	10965.0
	% Fixture	81.6	0.0	81.6
Total	Lumens	13440.1	0.0	13440.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.2	1.3
10°-20°	496.2	3.7
20°-30°	821.3	6.1
30°-40°	1343.4	10.0
40°-50°	2169.1	16.1
50°-60°	3131.5	23.3
60°-70°	3455.8	25.7
70°-80°	1592.9	11.9
80°-90°	257.6	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°	13440.1	100.0
0°-180°	13440.1	100.0



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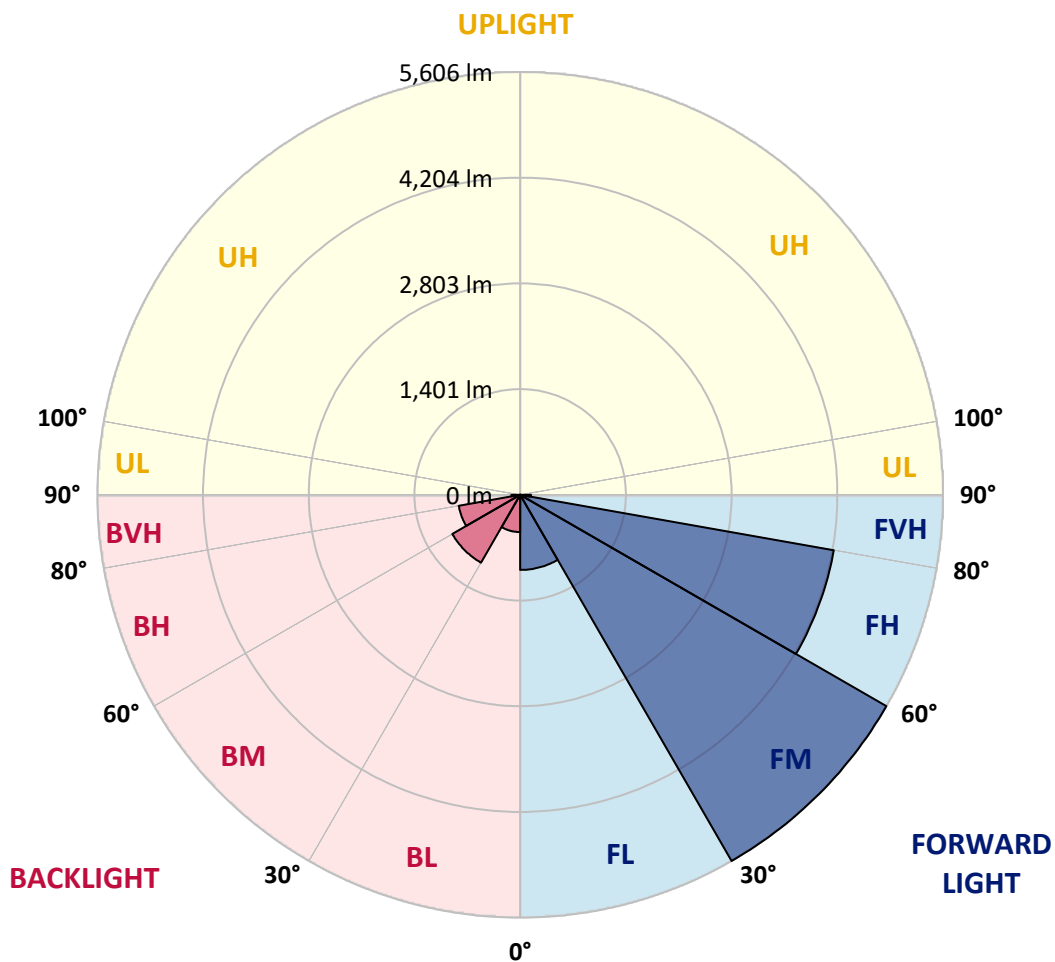
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	995.9	7.4			
FM (30°-60°)	5605.5	41.7			
FH (60°-80°)	4221.9	31.4			G2/5000
FVH (80°-90°)	141.7	1.1			G2/225
BL (0°-30°)	493.8	3.7	B1/500		
BM (30°-60°)	1038.5	7.7	B2/2500		
BH (60°-80°)	826.8	6.2	B2/1000		G2/1000
BVH (80°-90°)	116.0	0.9			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	80°	85°
0°	1867.2	1867.2	1867.2	1867.2	1867.2	1867.2	1867.2	1867.2	1867.2	1867.2	1867.2
2.5°	2042.6	2030.7	2032.6	2029.3	2019.4	2002.2	1983.7	1949.9	1914.9	1896.3	1881.8
5°	2213.3	2210.0	2205.3	2194.8	2169.6	2133.9	2089.5	2030.0	1965.8	1932.1	1899.6
7.5°	2341.0	2339.0	2333.0	2326.4	2301.9	2258.9	2192.1	2107.4	2014.1	1967.8	1917.5
10°	2351.6	2354.9	2359.5	2377.4	2380.7	2357.5	2289.4	2186.8	2064.4	2004.9	1940.7
12.5°	2261.6	2268.9	2286.7	2332.4	2380.7	2409.1	2374.1	2270.2	2123.3	2051.2	1969.8
15°	2142.5	2146.5	2168.3	2231.1	2317.8	2405.8	2438.9	2362.2	2199.4	2110.7	2013.5
17.5°	2091.5	2093.5	2108.7	2150.4	2231.1	2356.9	2475.3	2462.1	2292.7	2184.8	2067.1
20°	2065.7	2070.4	2092.2	2133.2	2184.2	2294.0	2480.6	2569.9	2403.8	2277.5	2134.5
22.5°	2139.2	2137.2	2145.1	2165.6	2208.6	2274.8	2476.6	2681.1	2545.4	2396.6	2222.5
25°	2310.5	2317.8	2303.9	2280.8	2294.7	2341.0	2497.8	2801.5	2722.8	2549.4	2337.7
27.5°	2554.7	2547.4	2526.9	2472.7	2444.2	2464.1	2567.9	2931.2	2943.1	2750.6	2489.9
30°	2798.2	2792.2	2772.4	2706.2	2648.0	2631.5	2704.2	3080.1	3205.8	2992.1	2676.4
32.5°	3051.0	3044.3	3025.8	2959.6	2889.5	2851.1	2898.1	3252.1	3515.4	3280.5	2896.1
35°	3362.6	3350.0	3311.0	3219.0	3150.2	3120.4	3142.3	3468.5	3872.7	3622.0	3162.8
37.5°	3655.7	3674.9	3635.2	3508.2	3418.8	3408.3	3432.7	3732.5	4257.8	4003.8	3469.1
40°	3950.2	3953.5	3917.7	3813.9	3721.9	3704.7	3766.2	4052.7	4712.4	4460.3	3841.6
42.5°	4254.5	4261.1	4200.9	4105.0	4037.5	4040.8	4110.9	4427.9	5233.8	4998.2	4270.4
45°	4615.1	4625.1	4558.9	4433.2	4371.6	4495.4	4466.3	4848.7	5805.5	5609.6	4762.7
47.5°	4992.3	5007.5	4957.2	4839.4	4762.7	4932.7	4821.6	5315.2	6420.8	6265.3	5303.3
50°	5198.1	5219.9	5268.9	5260.3	5243.7	5215.3	5217.9	5815.4	7055.4	6948.2	5859.1
52.5°	5087.6	5086.9	5265.6	5482.6	5714.2	5731.4	5700.9	6342.7	7648.2	7615.8	6382.4
55°	4582.1	4616.5	4887.1	5307.2	5939.8	6334.8	6424.8	6946.9	8230.5	8268.2	6913.8
57.5°	3740.4	3768.9	4134.1	4719.7	5635.4	6693.4	7454.4	7824.9	8881.6	9057.6	7621.1
60°	2536.8	2571.2	2958.3	3661.7	4816.3	6493.6	8434.3	9391.7	9661.0	10061.3	8613.6
62.5°	1490.7	1521.8	1837.5	2309.9	3391.0	5565.3	8864.4	11620.9	10899.0	11575.9	10127.5
65°	1026.2	1047.4	1200.9	1437.8	1948.6	3748.3	8331.1	13159.9	12803.9	13452.4	11882.9
67.5°	825.8	823.1	944.9	1106.3	1254.5	1932.7	6299.7	12985.9	14479.3	14749.9	12794.0
70°	680.2	677.5	760.3	893.9	1002.4	1088.4	3431.4	10958.5	14137.9	14247.7	11955.0
72.5°	569.0	571.7	624.6	723.9	822.5	819.8	1507.9	7709.1	11122.0	11881.6	9530.0
75°	480.4	481.7	516.8	586.9	667.6	660.3	817.8	4176.4	6465.2	6993.8	5282.8
77.5°	408.9	410.2	432.7	471.8	529.3	526.7	596.8	1804.4	2697.0	2663.9	1807.0
80°	364.6	364.6	375.2	382.4	414.2	402.3	442.7	866.8	1140.1	1052.7	721.2
82.5°	285.8	287.2	352.0	349.4	326.2	311.0	311.0	510.8	604.1	558.4	422.1
85°	160.8	160.1	227.0	273.9	287.2	219.0	217.0	285.8	328.8	289.8	204.5
87.5°	68.8	70.1	105.2	121.7	162.8	136.3	134.3	147.6	167.4	144.9	94.6
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°	1867.2	1867.2	1867.2	1867.2	1867.2	1867.2	1867.2	1867.2	1867.2	1867.2	1867.2
2.5°	1867.9	1850.7	1813.0	1766.0	1723.6	1695.9	1670.7	1634.3	1636.3	1611.2	1592.6
5°	1866.6	1830.8	1743.5	1639.6	1539.7	1467.6	1413.3	1364.4	1352.4	1329.3	1315.4
7.5°	1867.9	1809.7	1662.8	1496.7	1373.0	1281.7	1235.3	1209.5	1203.6	1195.6	1196.3
10°	1872.5	1790.5	1574.1	1363.0	1233.3	1173.1	1161.9	1169.8	1179.1	1181.7	1182.4
12.5°	1883.1	1773.3	1476.8	1243.9	1146.0	1127.5	1146.7	1173.8	1191.7	1200.3	1199.6
15°	1906.9	1760.0	1383.5	1150.6	1097.7	1107.6	1143.4	1181.7	1207.5	1219.5	1220.1
17.5°	1932.7	1740.8	1287.6	1079.2	1062.0	1087.1	1131.5	1176.4	1208.2	1221.4	1224.1
20°	1966.5	1717.0	1187.0	1025.6	1028.2	1056.7	1098.4	1143.4	1178.4	1189.7	1195.0
22.5°	2010.8	1691.2	1099.0	981.9	989.9	1011.7	1044.1	1083.2	1113.6	1118.9	1123.5
25°	2070.4	1663.4	1028.9	942.2	945.5	958.1	979.9	1003.1	1024.3	1018.3	1022.9
27.5°	2150.4	1639.6	976.6	905.8	899.9	902.5	913.8	921.0	932.3	915.7	917.7
30°	2244.4	1613.8	936.3	874.1	857.5	852.9	855.5	859.5	868.1	845.6	842.3
32.5°	2353.6	1582.7	898.5	846.3	823.1	813.9	815.2	825.8	858.8	844.9	837.7
35°	2480.6	1547.6	858.8	815.8	800.0	786.7	785.4	818.5	917.1	908.5	901.9
37.5°	2629.5	1512.6	819.1	781.4	782.8	768.2	763.6	801.3	928.3	894.6	889.9
40°	2818.7	1494.0	785.4	745.0	761.6	759.6	750.3	769.5	854.2	792.7	784.7
42.5°	3052.9	1496.7	760.3	706.0	736.4	757.6	743.1	743.7	774.2	727.8	720.6
45°	3342.1	1527.8	742.4	674.9	708.0	755.6	740.4	729.8	732.5	708.0	704.0
47.5°	3679.5	1592.0	729.8	649.1	680.9	748.3	739.7	725.8	719.9	706.7	703.4
50°	4054.7	1685.3	720.6	624.6	656.4	736.4	740.4	721.9	715.3	710.0	708.0
52.5°	4423.2	1791.8	706.7	603.4	637.2	721.9	742.4	717.9	710.6	706.7	704.7
55°	4834.1	1924.8	685.5	585.6	621.3	703.4	742.4	712.0	704.0	704.7	704.0
57.5°	5389.3	2139.8	660.3	570.4	602.1	680.9	729.8	705.3	695.4	696.1	696.7
60°	6256.7	2519.0	629.9	555.1	578.3	654.4	712.6	690.8	680.9	683.5	684.2
62.5°	7532.4	3075.4	590.2	532.6	553.2	625.9	688.8	672.3	662.3	668.9	668.9
65°	8858.4	3566.4	541.2	504.2	526.7	594.8	659.0	649.1	639.2	654.4	653.7
67.5°	9215.0	3456.6	492.3	473.1	500.2	560.4	623.3	618.0	612.7	639.2	637.8
70°	8186.2	2775.0	447.3	441.3	471.1	523.4	584.9	584.9	581.6	601.5	596.8
72.5°	6236.9	1967.8	404.3	407.6	438.0	483.0	543.2	547.9	542.6	552.5	548.5
75°	3338.8	1126.2	361.3	370.5	397.0	442.0	496.9	501.5	498.2	497.6	499.6
77.5°	1109.6	550.5	316.3	330.8	354.0	399.6	448.6	455.9	447.9	446.6	446.0
80°	494.3	346.1	266.7	285.8	306.4	351.3	397.7	403.6	395.0	406.9	391.7
82.5°	317.6	227.6	213.7	234.9	254.7	303.0	346.7	348.0	340.1	395.0	336.8
85°	154.2	140.9	160.8	180.0	197.2	238.2	287.2	287.8	268.0	244.2	235.6
87.5°	76.8	82.0	107.2	124.4	133.0	163.4	209.1	205.1	196.5	178.7	164.8
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)