

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: P299233

Luminaire Tested: **GLNA-AF-04-LED-E1-SL2-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299233
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24286)
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-SL2-7027-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type V
Narrow OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13416.6 lumens
Efficiency: N/A
Efficacy: 104.0 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G3

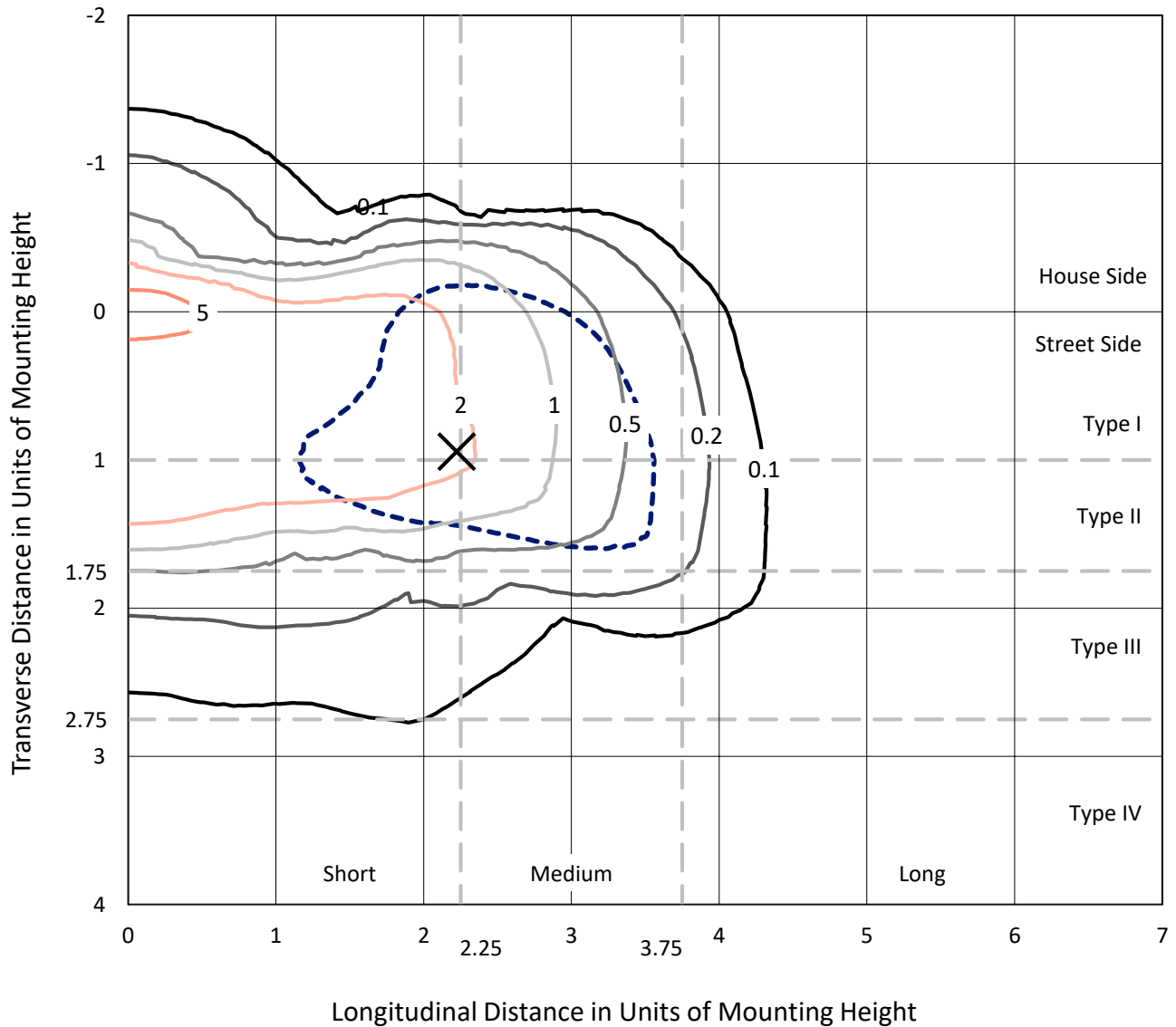
Input Watts (W): 129
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

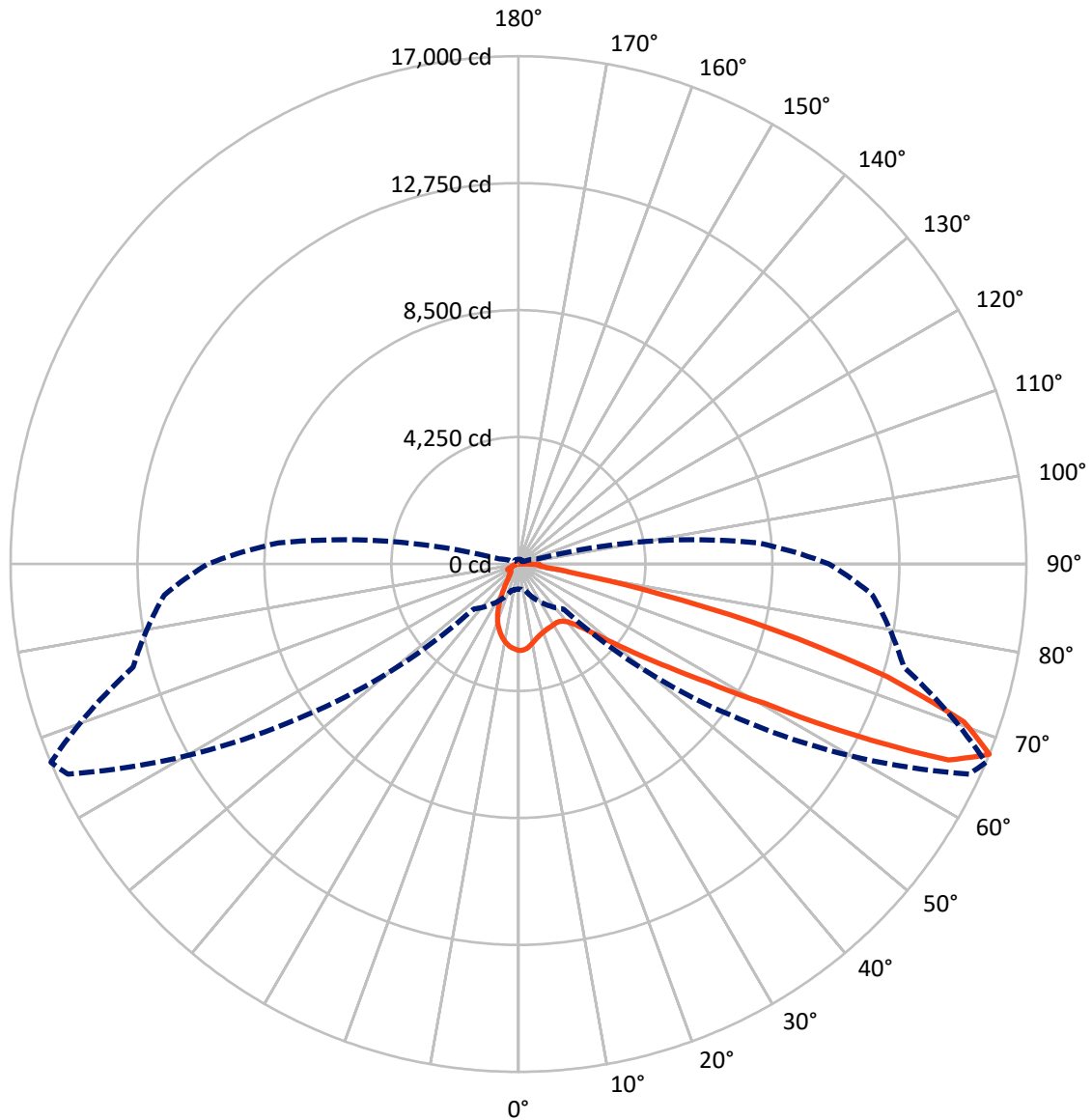
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 7.2 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2223.0	0.0	2223.0
	% Fixture	16.6	0.0	16.6
Street Side	Lumens	11193.7	0.0	11193.7
	% Fixture	83.4	0.0	83.4
Total	Lumens	13416.6	0.0	13416.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	246.9	1.8
10°-20°	571.3	4.3
20°-30°	774.4	5.8
30°-40°	1100.9	8.2
40°-50°	1841.8	13.7
50°-60°	2913.7	21.7
60°-70°	3711.7	27.7
70°-80°	1944.2	14.5
80°-90°	311.8	2.3
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°	13416.6	100.0
0°-180°	13416.6	100.0

Coefficient of Utilization



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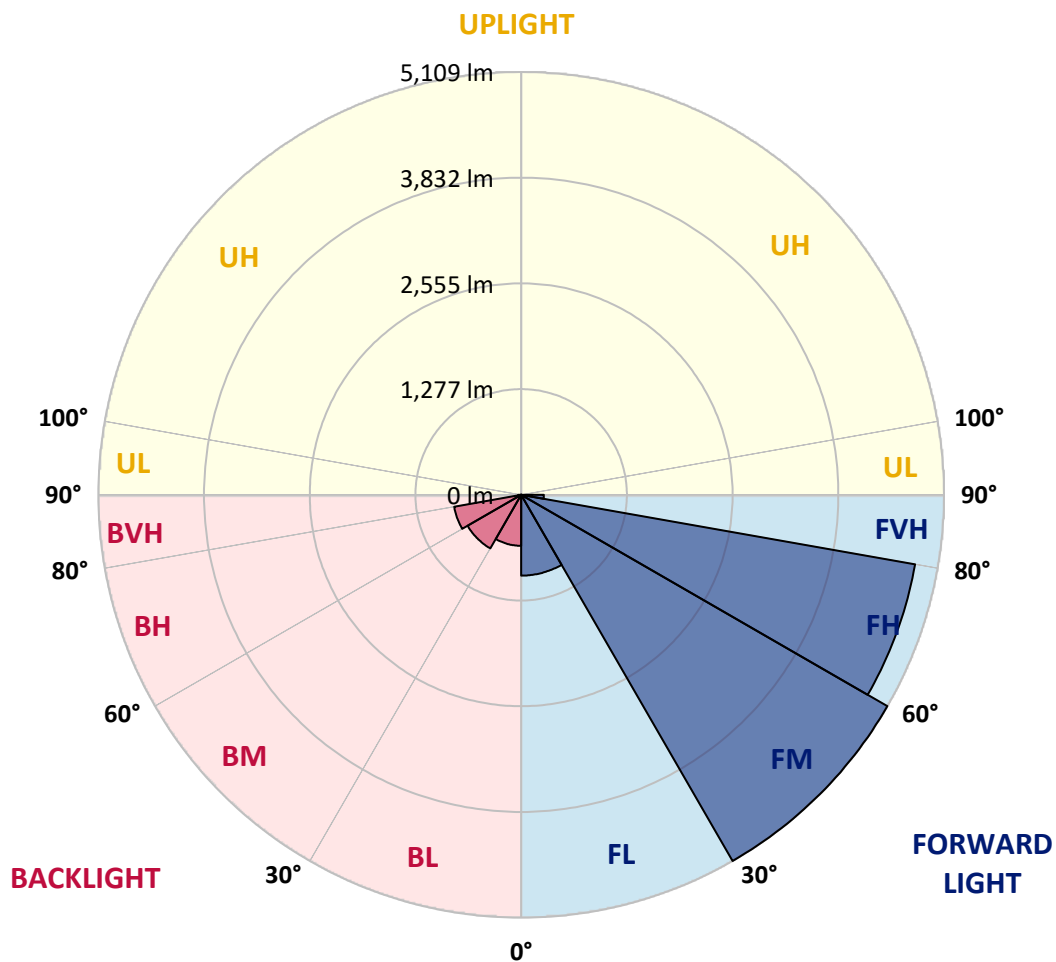
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	976.4	7.3			
FM (30°-60°)	5109.3	38.1			
FH (60°-80°)	4833.7	36.0			G2/5000
FVH (80°-90°)	274.2	2.0			G3/500
BL (0°-30°)	616.2	4.6	B2/1000		
BM (30°-60°)	747.0	5.6	B1/1000		
BH (60°-80°)	822.2	6.1	B2/1000		G2/1000
BVH (80°-90°)	37.6	0.3			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	67°	75°	85°
0°	2893.9	2893.9	2893.9	2893.9	2893.9	2893.9	2893.9	2893.9	2893.9	2893.9	2893.9
2.5°	2774.8	2779.5	2794.0	2803.3	2845.0	2862.8	2875.4	2888.0	2890.0	2895.9	2890.0
5°	2483.7	2493.7	2520.8	2551.2	2631.9	2695.5	2762.3	2831.7	2844.3	2889.3	2901.9
7.5°	2258.1	2255.5	2278.0	2314.4	2397.1	2485.1	2602.2	2740.4	2767.6	2868.8	2917.8
10°	2093.4	2091.4	2115.2	2152.9	2231.7	2315.0	2447.3	2636.6	2674.9	2836.4	2933.0
12.5°	1971.6	1972.3	1996.1	2037.8	2117.9	2201.9	2336.2	2536.0	2585.0	2798.7	2948.9
15°	1890.9	1896.2	1915.4	1959.7	2037.8	2121.8	2253.5	2460.6	2515.5	2768.9	2966.7
17.5°	1863.8	1872.4	1879.0	1911.4	1978.3	2062.3	2191.3	2405.0	2463.2	2748.4	2982.6
20°	1888.9	1898.9	1886.3	1897.5	1939.9	2014.0	2142.3	2361.3	2420.9	2725.2	2984.6
22.5°	1996.8	2006.0	1969.0	1936.6	1933.9	1978.9	2102.0	2326.9	2388.5	2708.0	2985.2
25°	2186.7	2192.6	2130.4	2055.0	1981.6	1966.3	2073.5	2303.1	2368.6	2692.8	2972.7
27.5°	2419.6	2424.2	2352.7	2241.6	2094.0	1996.1	2063.6	2289.2	2357.4	2679.6	2951.5
30°	2702.7	2724.6	2628.6	2488.4	2273.3	2084.1	2083.4	2281.9	2344.8	2657.1	2909.8
32.5°	2992.5	3001.8	2935.6	2793.4	2514.8	2238.9	2139.0	2287.2	2341.5	2629.9	2856.9
35°	3286.3	3298.2	3255.2	3140.7	2845.0	2465.9	2247.5	2318.3	2362.0	2620.7	2819.8
37.5°	3666.7	3682.6	3623.0	3490.7	3246.6	2773.5	2428.2	2396.4	2424.8	2647.2	2808.6
40°	4268.1	4260.8	4086.8	3889.7	3685.9	3167.2	2686.2	2528.7	2545.3	2732.5	2843.0
42.5°	4968.1	4950.3	4650.5	4340.9	4168.9	3643.6	3027.6	2758.3	2755.0	2900.6	2964.1
45°	5526.5	5512.0	5242.0	4860.3	4722.7	4186.1	3468.9	3100.4	3075.9	3167.2	3187.7
47.5°	5828.9	5829.6	5674.1	5362.5	5359.1	4875.5	4035.9	3595.3	3552.9	3595.9	3574.1
50°	5723.0	5736.9	5720.4	5621.1	5940.0	5779.3	4776.3	4285.3	4200.0	4242.3	4158.3
52.5°	5210.9	5228.8	5326.7	5478.9	6184.2	6871.6	5864.0	5142.8	5043.5	5028.3	4935.0
55°	4303.2	4325.0	4524.8	4938.4	5981.1	7605.4	7580.2	6235.8	6077.7	5934.1	5894.4
57.5°	2966.1	3002.4	3324.0	3938.0	5324.1	7827.0	9624.0	7793.9	7472.4	6970.9	6980.1
60°	1671.9	1714.3	2093.4	2651.1	3998.2	7586.2	11178.8	10153.9	9475.1	8184.9	8253.7
62.5°	1063.2	1108.9	1396.7	1842.0	2399.0	6289.4	11815.9	13434.9	12572.8	9681.5	9749.0
65°	860.8	880.6	1016.3	1520.4	1742.1	3789.1	11332.3	16137.6	15816.1	11581.0	11266.1
67.5°	840.3	846.9	917.0	1276.3	1670.6	2129.8	9039.1	16643.1	16999.7	13354.9	11898.0
70°	830.3	853.5	1033.5	1218.0	1599.8	1796.3	5431.9	15257.7	15820.7	13818.6	11057.0
72.5°	402.9	401.6	520.0	1101.6	1802.3	1863.1	2790.7	12345.2	12910.2	11972.1	9086.1
75°	324.9	297.1	283.8	403.6	1732.8	1924.0	1778.4	8494.6	8903.5	8026.8	5585.4
77.5°	308.3	275.2	252.1	252.7	732.4	2040.4	1506.5	4701.5	4820.6	3625.7	1530.3
80°	255.4	225.0	208.4	234.9	354.6	1943.2	1628.9	2127.8	1952.4	890.5	509.4
82.5°	177.3	161.4	156.8	197.2	283.8	1384.8	1894.2	1143.3	958.7	445.9	314.3
85°	113.1	96.6	107.2	143.6	221.0	639.1	1951.1	891.2	708.6	283.2	177.3
87.5°	52.3	42.3	52.9	79.4	144.2	220.3	1856.5	1001.0	729.8	149.5	111.8
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°	2893.9	2893.9	2893.9	2893.9	2893.9	2893.9	2893.9	2893.9	2893.9	2893.9	2893.9
2.5°	2895.3	2882.7	2872.8	2854.2	2833.7	2813.9	2796.0	2773.5	2766.9	2761.0	2770.2
5°	2904.5	2892.0	2855.6	2798.7	2735.8	2676.9	2618.0	2567.8	2536.7	2519.5	2529.4
7.5°	2918.4	2900.6	2825.1	2720.6	2607.5	2504.2	2397.7	2312.4	2249.5	2219.7	2228.3
10°	2931.0	2896.6	2773.5	2616.7	2451.3	2297.8	2129.8	1990.8	1887.6	1833.4	1846.6
12.5°	2936.3	2881.4	2701.4	2487.0	2260.1	2035.2	1787.7	1580.0	1431.8	1377.5	1366.3
15°	2941.6	2864.2	2622.0	2339.5	2029.2	1711.0	1364.3	1115.5	992.4	965.3	959.4
17.5°	2942.9	2834.4	2532.0	2179.4	1758.6	1325.2	932.9	774.8	775.4	819.1	824.4
20°	2929.0	2790.1	2422.9	1980.2	1434.4	916.3	640.5	613.3	713.2	822.4	835.6
22.5°	2897.2	2731.2	2299.1	1748.0	1063.2	603.4	495.6	525.3	654.3	788.0	803.2
25°	2856.9	2659.7	2152.9	1478.7	704.0	431.4	415.5	451.9	539.2	628.5	637.1
27.5°	2802.0	2575.0	1988.8	1170.4	457.2	355.3	365.9	390.4	426.1	465.8	469.8
30°	2731.2	2473.8	1813.5	853.5	345.4	319.6	334.8	348.0	363.2	385.7	387.7
32.5°	2649.8	2376.5	1633.5	589.5	306.3	301.0	312.9	319.6	331.5	345.4	346.7
35°	2581.7	2283.9	1447.0	416.8	289.8	287.1	295.1	297.7	309.0	324.2	325.5
37.5°	2542.6	2208.5	1254.4	336.1	278.5	274.6	279.2	279.2	295.1	317.6	320.9
40°	2545.3	2166.8	1061.9	303.7	269.3	264.0	264.6	264.6	285.2	309.6	311.6
42.5°	2617.4	2177.4	891.2	291.1	262.0	256.0	252.7	254.7	271.9	287.8	289.1
45°	2786.8	2252.2	731.1	283.2	254.7	252.7	245.5	244.8	251.4	258.7	258.7
47.5°	3064.6	2399.7	622.6	277.9	248.8	248.1	239.5	230.9	230.2	232.9	232.9
50°	3516.5	2653.8	549.8	271.9	244.8	239.5	229.6	216.4	211.7	213.7	213.7
52.5°	4194.0	3107.0	522.0	264.0	236.2	227.6	216.4	203.1	199.1	199.8	199.8
55°	5082.6	3803.0	518.1	254.7	226.9	213.0	203.8	193.9	189.2	190.5	190.5
57.5°	6168.3	4765.7	588.8	240.2	214.4	198.5	193.2	186.6	183.3	185.3	184.6
60°	7488.2	6025.4	873.3	225.0	201.8	185.3	185.3	180.0	177.3	179.3	178.6
62.5°	9008.7	7472.4	1228.0	213.7	188.6	174.7	177.3	174.7	172.0	173.3	172.7
65°	10357.0	8415.2	1149.9	205.1	175.3	164.7	169.4	168.1	166.1	167.4	166.7
67.5°	10396.1	8065.8	645.7	195.8	162.8	154.8	161.4	160.8	159.5	160.8	160.1
70°	9277.9	6810.7	363.9	178.6	149.5	142.9	152.2	151.5	150.2	152.8	152.2
72.5°	7433.3	4942.3	266.0	157.5	136.3	130.3	140.9	140.3	140.3	144.2	142.2
75°	4277.4	2543.3	212.4	135.0	122.4	117.8	127.0	127.7	129.0	134.3	130.3
77.5°	1219.4	792.6	173.3	114.5	105.2	103.2	112.5	113.8	114.5	120.4	115.1
80°	453.2	365.2	142.9	95.9	86.0	86.7	95.3	97.3	97.9	103.9	97.3
82.5°	289.1	240.8	115.8	74.1	67.5	66.8	77.4	80.1	80.1	80.7	76.7
85°	168.7	144.2	87.3	53.6	47.6	45.7	57.6	62.2	60.2	58.9	56.2
87.5°	113.1	99.2	53.6	29.8	25.8	24.5	33.7	37.1	35.7	33.7	31.8
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)