

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: P301156

Luminaire Tested: **GLNA-AF-03-LED-E1-T3R-7050-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301156
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194839)
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-T3R-7050-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 5000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type III
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14957.8 lumens
Efficiency: N/A
Efficacy: 120.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type III - Short - Full Cutoff
BUG Rating: B2 - U0 - G3

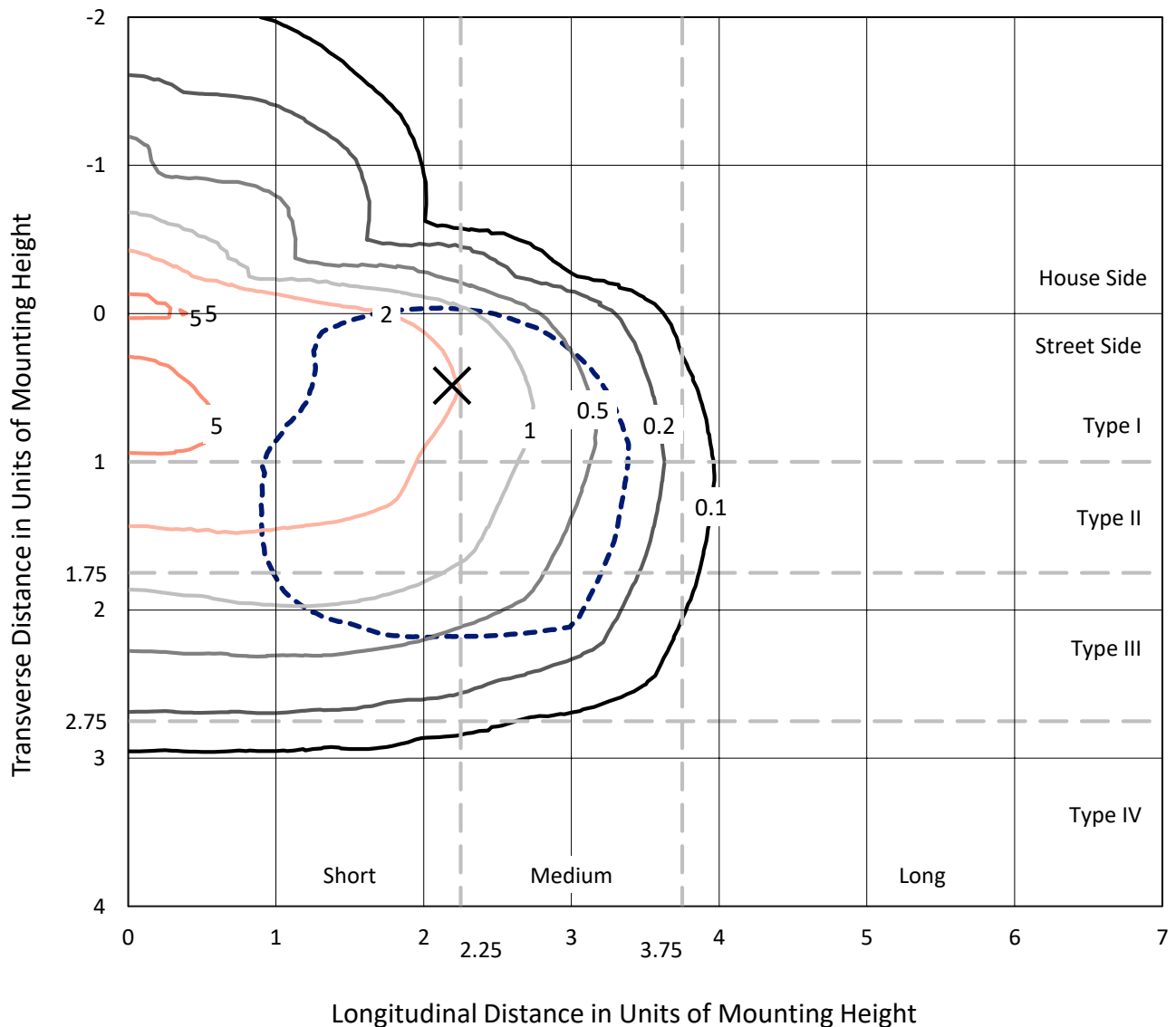
Input Watts (W): 124
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

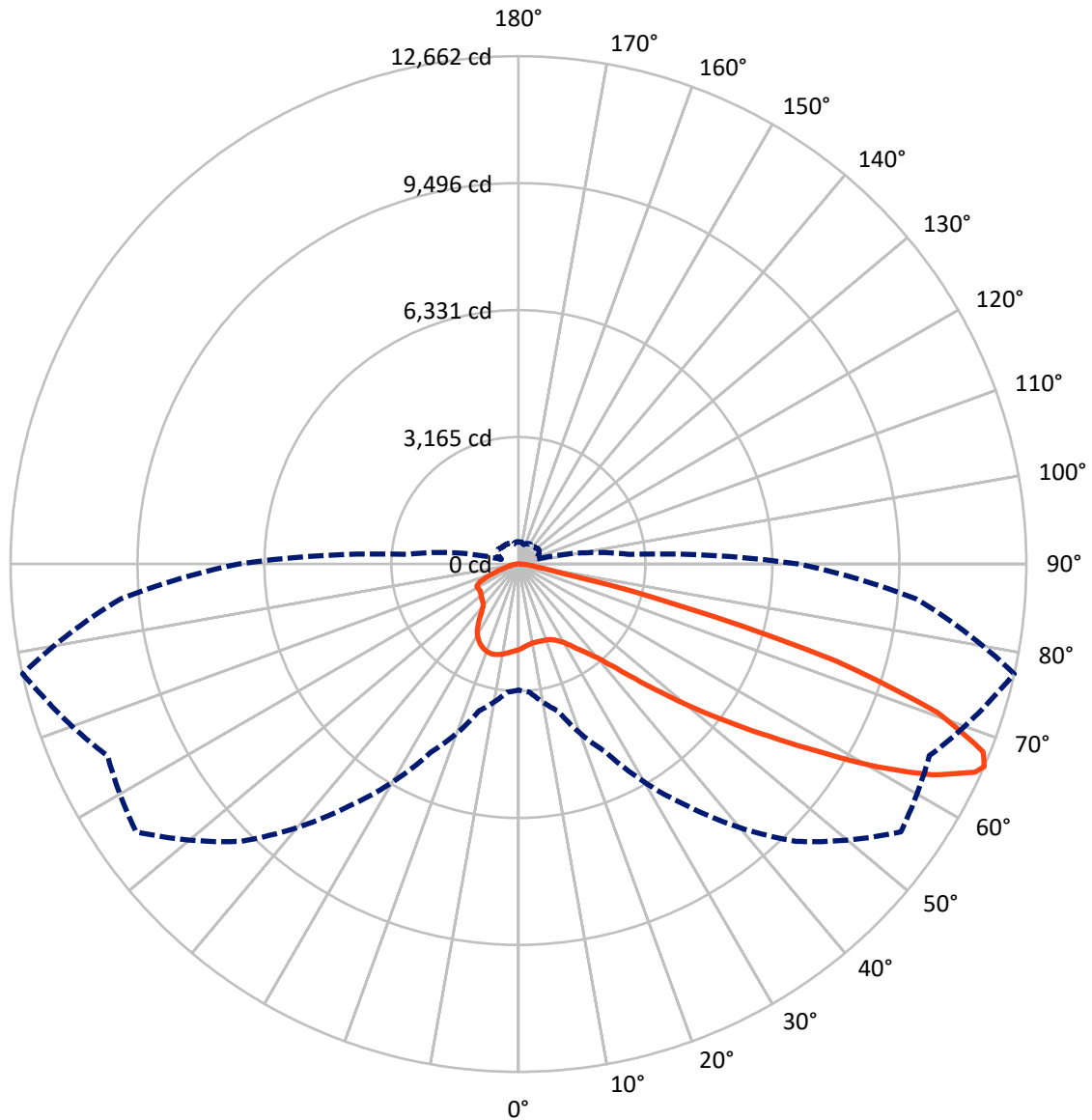
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 6.6 fc
 Type III - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2555.5	0.0	2555.5
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	12402.4	0.0	12402.4
	% Fixture	82.9	0.0	82.9
Total	Lumens	14957.8	0.0	14957.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	190.4	1.3
10°-20°	537.3	3.6
20°-30°	916.9	6.1
30°-40°	1467.8	9.8
40°-50°	2267.6	15.2
50°-60°	3216.3	21.5
60°-70°	4302.5	28.8
70°-80°	1868.5	12.5
80°-90°	190.5	1.3
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°	14957.8	100.0
0°-180°	14957.8	100.0



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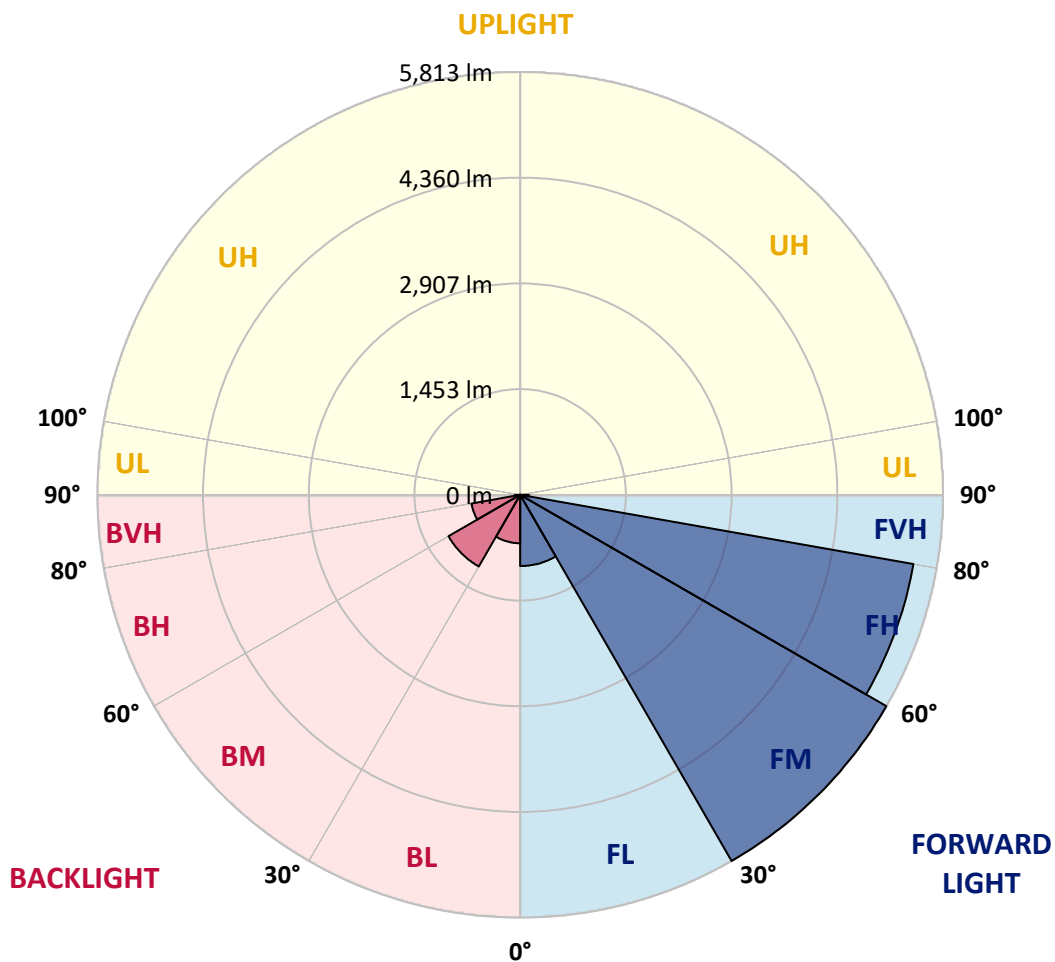
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	979.1	6.5			
FM	(30°-60°)	5813.4	38.9			
FH	(60°-80°)	5490.4	36.7			G3/7500
FVH	(80°-90°)	119.5	0.8			G2/225
BL	(0°-30°)	665.5	4.4	B2/1000		
BM	(30°-60°)	1138.3	7.6	B2/2500		
BH	(60°-80°)	680.6	4.5	B2/1000		G2/1000
BVH	(80°-90°)	71.0	0.5			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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	77.5°	85°
0°	2131.5	2131.5	2131.5	2131.5	2131.5	2131.5	2131.5	2131.5	2131.5	2131.5	2131.5
2.5°	1885.7	1898.3	1909.0	1918.8	1938.5	1971.0	2008.5	2038.9	2082.7	2091.3	2114.6
5°	1712.5	1712.5	1720.9	1735.9	1762.6	1811.4	1862.3	1930.2	2025.6	2048.1	2110.4
7.5°	1628.5	1629.1	1634.0	1646.6	1670.0	1714.5	1770.3	1850.4	1979.6	2017.1	2123.0
10°	1659.5	1652.4	1641.7	1635.5	1638.9	1665.0	1718.1	1807.1	1951.4	1999.3	2151.4
12.5°	1833.2	1820.0	1783.2	1734.4	1687.7	1668.7	1699.7	1786.6	1939.4	1995.2	2188.9
15°	2117.4	2111.9	2043.2	1942.2	1829.2	1734.4	1713.2	1778.9	1940.7	2000.1	2233.4
17.5°	2473.7	2465.8	2375.5	2228.5	2044.0	1859.6	1760.5	1785.3	1945.6	2008.5	2276.4
20°	2833.4	2809.2	2711.9	2536.6	2299.7	2029.7	1839.0	1801.6	1952.0	2017.7	2321.8
22.5°	3102.0	3082.1	2994.6	2824.2	2551.4	2227.0	1944.3	1829.8	1972.5	2044.7	2377.4
25°	3338.0	3339.3	3252.4	3087.9	2805.8	2436.3	2080.0	1905.4	2024.8	2099.7	2453.8
27.5°	3629.9	3613.0	3531.7	3368.4	3057.5	2647.5	2243.9	2009.4	2102.6	2178.2	2554.2
30°	3978.9	3966.9	3873.0	3687.9	3336.5	2874.3	2431.1	2130.0	2203.0	2281.3	2685.6
32.5°	4389.5	4384.0	4286.4	4048.2	3658.8	3141.6	2651.1	2289.9	2352.8	2434.1	2874.3
35°	4871.7	4872.3	4757.2	4470.9	4011.4	3452.5	2900.4	2495.5	2535.1	2619.9	3099.2
37.5°	5168.5	5204.4	5161.4	4869.5	4410.7	3800.2	3224.2	2768.4	2742.9	2828.5	3340.1
40°	5232.0	5275.9	5412.2	5263.9	4857.5	4183.3	3511.1	3030.5	2998.8	3103.3	3650.4
42.5°	5143.0	5203.8	5492.2	5596.7	5331.7	4655.3	3896.9	3420.0	3379.7	3520.3	4036.2
45°	5089.9	5135.3	5468.9	5770.0	5743.0	5189.0	4388.3	3908.9	3894.2	4078.6	4481.6
47.5°	4998.1	5039.2	5360.0	5810.2	5984.8	5678.0	4978.4	4507.0	4535.9	4777.7	4984.0
50°	5047.6	5064.5	5238.4	5707.7	6054.8	6036.4	5637.7	5199.5	5298.6	5600.3	5553.0
52.5°	5040.5	5084.4	5224.3	5539.5	6064.0	6257.7	6287.2	5972.0	6180.6	6526.9	6184.0
55°	4075.2	4155.7	5058.3	5497.1	6096.3	6474.4	6865.4	6786.2	7174.8	7578.4	6896.4
57.5°	3891.4	3942.3	4442.6	5586.2	6268.8	6888.7	7508.4	7682.4	8332.5	8801.1	7764.4
60°	3855.2	3918.1	4436.2	5695.1	6618.7	7563.6	8462.0	8767.3	9741.2	10254.3	8770.7
62.5°	3742.9	3810.7	4394.5	5680.7	7115.5	8497.3	9682.5	9920.7	11076.9	11575.9	9612.6
65°	3386.8	3450.3	4054.7	5452.6	7450.6	9493.8	11127.0	10978.0	12131.4	12506.5	10032.2
66°	3142.8	3205.1	3786.7	5184.1	7372.8	9776.5	11638.8	11305.2	12367.5	12661.5	9950.2
67.5°	2696.9	2745.7	3266.5	4582.6	6959.3	9855.7	12069.2	11551.1	12392.1	12496.1	9481.8
70°	1704.0	1718.1	2123.0	3163.4	5268.2	8547.3	11413.9	10940.6	11370.3	11088.9	7948.8
72.5°	739.3	734.4	1019.2	1609.2	2982.6	5735.3	9233.0	9027.3	8919.2	8277.5	5564.3
75°	411.3	417.1	529.4	747.0	1212.0	2817.2	6039.8	5779.8	4880.0	4164.2	2523.1
77.5°	330.0	337.9	438.9	530.0	544.2	982.4	2826.4	2299.7	1384.5	1111.0	701.0
80°	260.9	275.0	383.0	412.8	366.8	404.9	913.1	730.1	547.8	502.4	363.4
82.5°	206.3	216.3	328.7	312.4	256.6	272.8	437.4	426.3	356.3	324.4	209.9
85°	148.5	166.7	270.1	235.4	168.2	183.8	290.4	278.4	204.1	166.7	92.7
87.5°	60.8	79.2	190.9	156.2	93.9	85.6	144.9	136.3	96.7	70.6	46.0
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°	2131.5	2131.5	2131.5	2131.5	2131.5	2131.5	2131.5	2131.5	2131.5	2131.5	2131.5
2.5°	2129.4	2146.3	2168.3	2181.8	2188.9	2193.8	2201.5	2200.9	2203.0	2203.7	2206.4
5°	2143.5	2171.8	2203.7	2212.2	2212.2	2204.3	2196.6	2183.8	2178.8	2177.5	2178.8
7.5°	2180.3	2211.4	2239.0	2229.1	2207.9	2176.7	2136.5	2101.2	2082.1	2075.7	2074.4
10°	2227.0	2264.4	2275.8	2238.3	2176.0	2101.2	2021.3	1963.3	1930.2	1921.0	1918.2
12.5°	2283.5	2318.8	2303.4	2224.2	2108.9	1988.2	1877.7	1785.3	1716.0	1694.1	1692.6
15°	2345.7	2373.3	2318.8	2180.3	2008.5	1830.5	1634.0	1474.4	1388.1	1360.5	1358.4
17.5°	2403.7	2417.9	2309.6	2103.9	1860.8	1572.6	1311.7	1188.7	1159.2	1166.2	1167.5
20°	2453.2	2453.2	2278.5	1994.4	1628.5	1232.6	1067.8	1065.9	1087.1	1108.2	1112.5
22.5°	2507.5	2475.0	2224.2	1839.7	1298.9	1008.5	984.6	1004.2	1028.2	1051.5	1055.2
25°	2574.7	2492.8	2148.4	1605.1	1021.2	915.9	925.1	941.3	953.3	968.3	970.4
27.5°	2649.6	2515.2	2048.9	1282.0	886.3	858.1	865.2	870.7	869.2	875.0	876.3
30°	2739.3	2541.5	1912.4	1002.1	830.5	808.4	795.8	790.9	790.9	800.1	803.5
32.5°	2859.5	2580.3	1716.6	858.7	803.5	773.1	732.3	713.9	720.9	752.0	759.0
35°	2991.8	2622.0	1451.7	809.9	798.0	756.9	693.3	659.3	660.2	689.0	698.2
37.5°	3135.8	2675.1	1161.1	800.7	810.6	757.7	672.8	626.1	607.1	607.1	610.7
40°	3320.2	2729.4	940.1	807.2	837.6	766.1	662.3	600.0	546.3	547.8	550.6
42.5°	3560.6	2776.1	821.3	820.4	870.1	777.4	661.4	565.4	518.7	550.6	579.5
45°	3827.8	2799.4	768.9	832.6	896.2	784.5	650.3	559.8	522.3	616.9	672.1
47.5°	4135.1	2785.9	740.0	836.7	902.6	784.5	637.5	573.3	547.0	714.5	778.9
50°	4472.4	2747.2	711.7	828.3	900.5	783.0	649.5	586.5	556.2	731.4	775.9
52.5°	4868.9	2714.7	682.0	809.9	885.5	775.3	663.6	581.0	527.3	665.1	696.1
55°	5321.0	2723.9	648.8	783.8	862.2	760.5	658.7	558.3	496.9	585.9	604.9
57.5°	5899.2	2833.4	609.2	750.7	830.5	735.7	641.1	547.8	487.7	531.5	542.9
60°	6544.4	3024.1	559.8	717.3	790.9	696.1	627.6	552.7	492.0	527.3	532.8
62.5°	7018.0	3135.1	517.4	668.5	737.2	652.2	610.7	558.9	503.3	542.0	540.7
65°	7146.6	2952.8	464.4	597.2	664.4	606.4	589.3	566.0	508.2	554.0	547.8
66°	6966.4	2756.4	441.0	564.1	627.6	583.8	578.8	565.4	506.1	555.5	544.8
67.5°	6529.0	2353.4	400.8	515.3	569.0	550.0	561.9	558.9	500.3	554.0	539.3
70°	5324.7	1605.8	342.8	429.0	473.6	484.0	529.4	536.5	481.9	529.4	496.9
72.5°	3720.4	978.1	303.2	333.0	383.0	412.8	484.9	505.2	457.3	462.2	431.2
75°	1797.9	519.6	275.0	258.1	297.4	344.9	431.2	462.9	418.3	386.7	375.3
77.5°	560.4	317.3	233.2	207.8	233.2	278.4	360.4	405.7	372.6	323.8	319.5
80°	301.1	233.2	179.5	166.7	184.5	218.5	283.3	338.5	320.1	290.4	259.4
82.5°	198.6	151.3	132.9	129.2	140.6	166.7	210.6	280.5	280.5	248.9	181.0
85°	102.5	92.7	91.2	91.2	98.2	111.1	143.4	216.3	230.5	131.4	108.9
87.5°	50.9	53.1	49.4	51.6	55.2	54.4	68.5	108.9	130.1	79.8	66.3
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)