

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: STREETWORKS

Report Number: P234799

Luminaire Tested: **ARCH-M-AF48-110-D-U-T2R-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234799
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29623)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-110-D-U-T2R-8027-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 720mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9024 lumens
Efficiency: N/A
Efficacy: 81.3 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 111
Input Voltage (V): NR
Input Current (A_{in}): 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: 28.75 FT

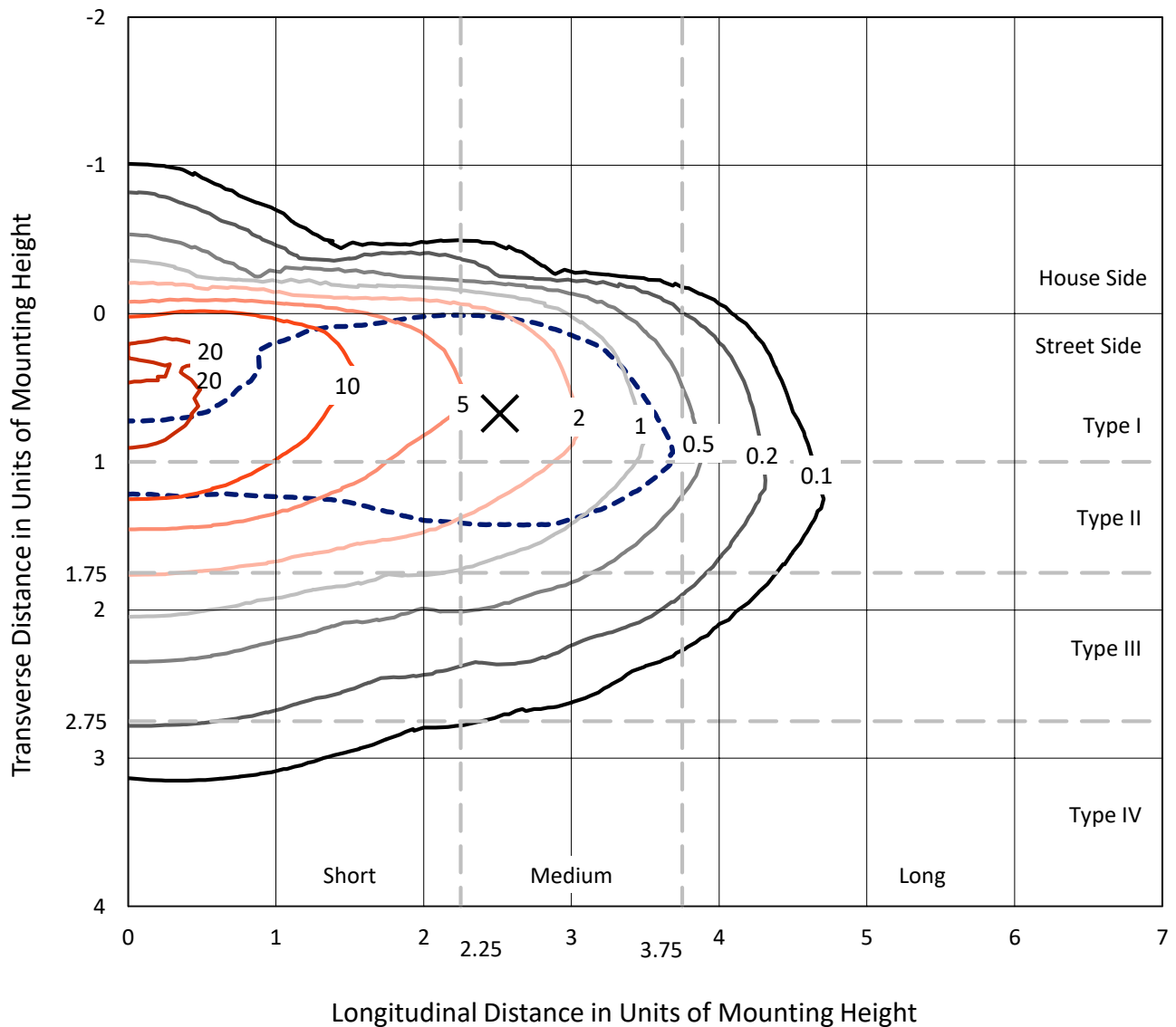


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

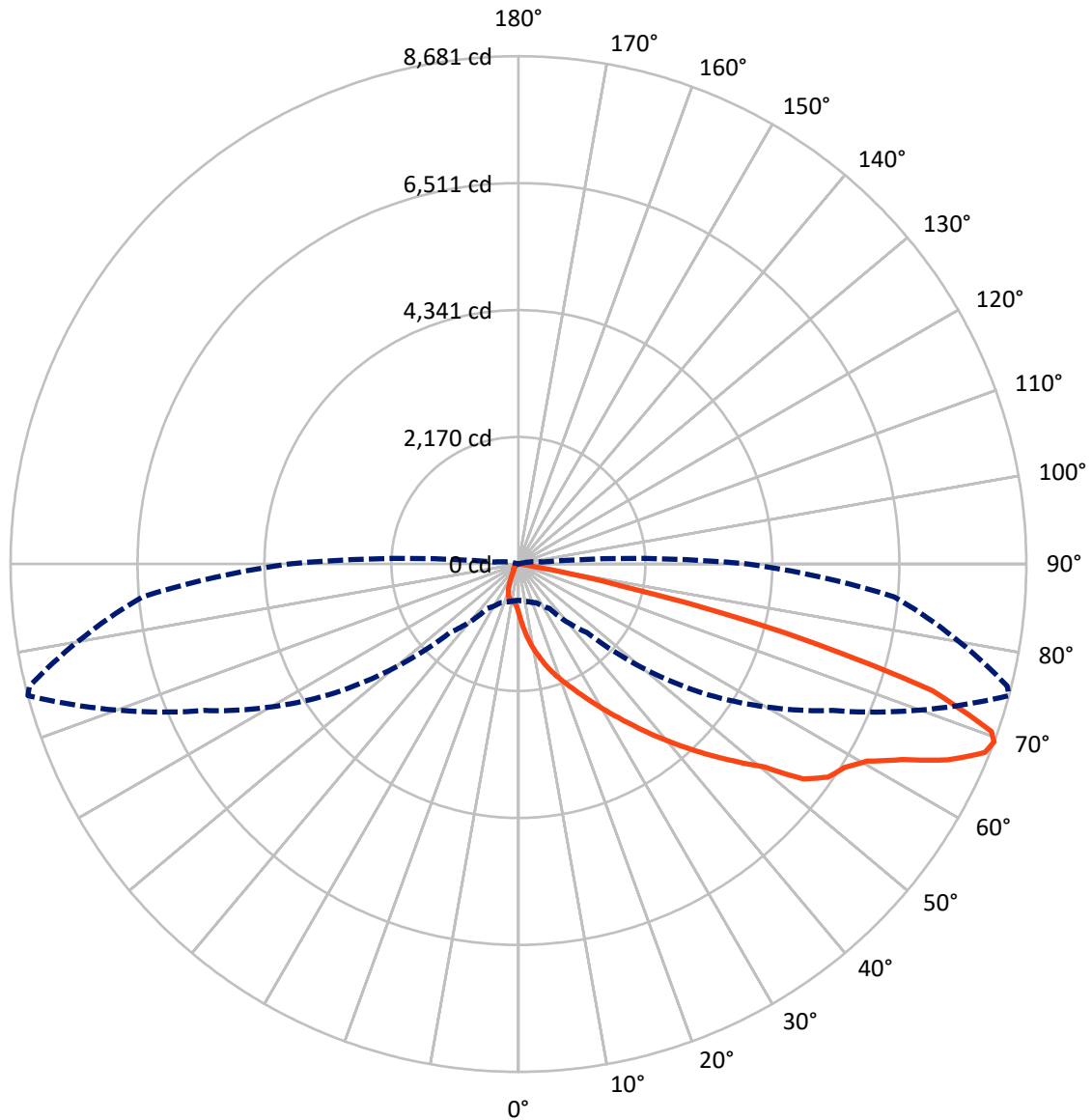


Based on 10 foot mounting height. Maximum calculated value = 23 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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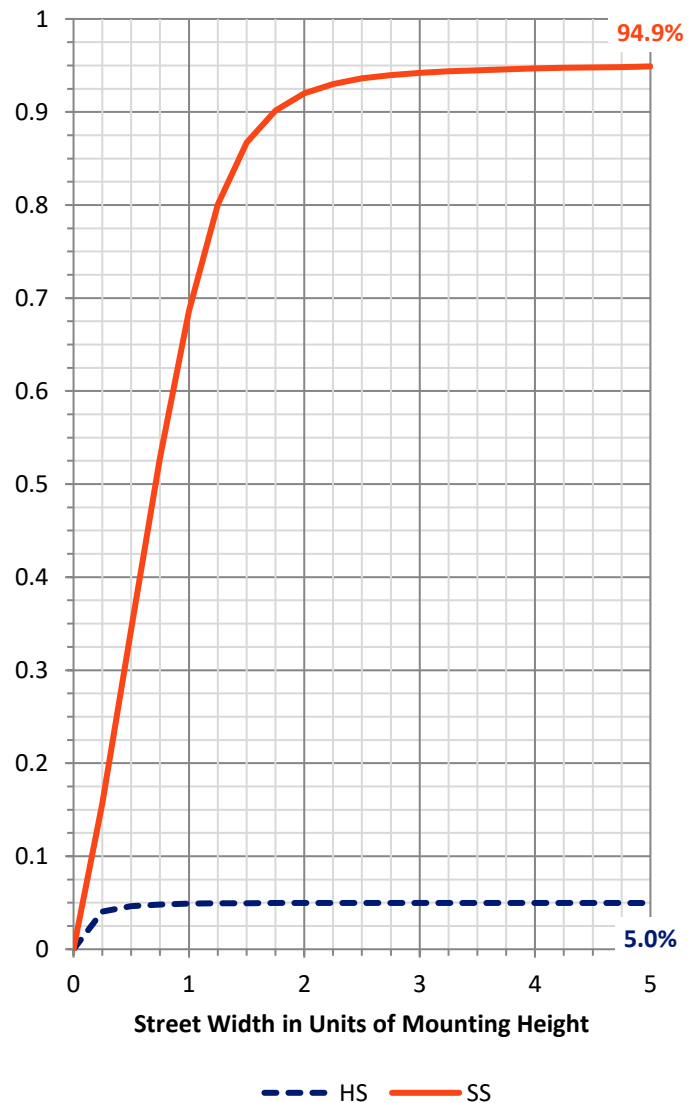
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	450.2	0.0	450.2
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	8573.8	0.0	8573.8
	% Fixture	95.0	0.0	95.0
Total	Lumens	9024.0	0.0	9024.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.9	1.1
10°-20°	350.0	3.9
20°-30°	668.2	7.4
30°-40°	1198.7	13.3
40°-50°	1836.5	20.4
50°-60°	2134.5	23.7
60°-70°	1890.1	20.9
70°-80°	815.3	9.0
80°-90°	32.7	0.4
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°	9024.0	100.0
0°-180°	9024.0	100.0

Coefficient of Utilization



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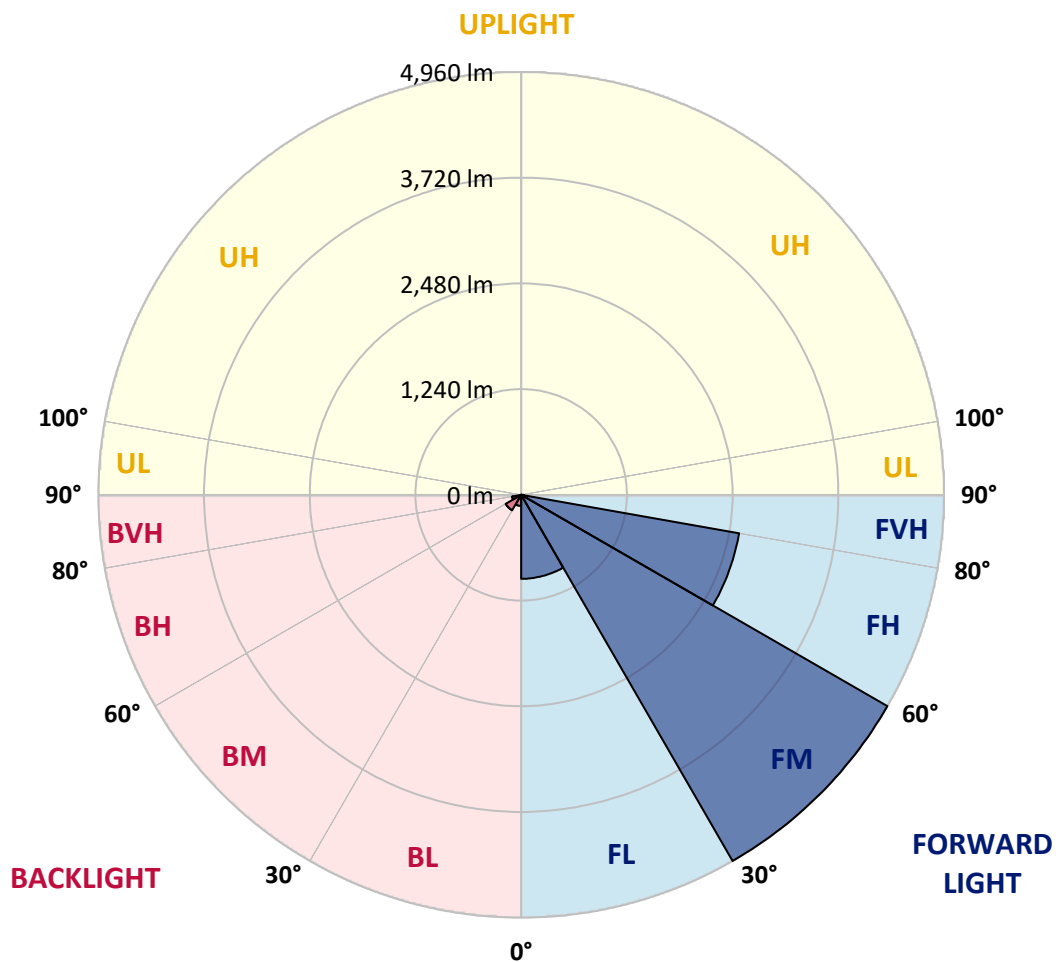
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	985.4	10.9			
FM	(30°-60°)	4959.8	55.0			
FH	(60°-80°)	2596.3	28.8			G2/5000
FVH	(80°-90°)	32.2	0.4			G1/100
BL	(0°-30°)	130.8	1.4	B1/500		
BM	(30°-60°)	209.9	2.3	B0/220		
BH	(60°-80°)	109.1	1.2	B0/110		G0/110
BVH	(80°-90°)	0.5	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 II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	839.7	839.7	839.7	839.7	839.7	839.7	839.7	839.7	839.7	839.7	839.7
2.5°	1383.2	1369.6	1356.0	1340.4	1305.3	1244.9	1168.9	1087.1	985.8	968.3	886.4
5°	1679.4	1673.5	1659.9	1638.4	1599.5	1533.2	1447.5	1326.7	1157.2	1128.0	954.6
7.5°	1887.8	1883.9	1872.2	1846.9	1811.8	1745.6	1656.0	1525.5	1328.7	1295.6	1040.3
10°	2074.8	2072.9	2063.2	2039.8	2004.7	1932.6	1837.2	1700.8	1492.3	1455.3	1139.7
12.5°	2244.3	2246.3	2242.4	2230.7	2205.4	2137.2	2028.1	1880.0	1650.1	1609.2	1258.5
15°	2343.7	2349.5	2365.1	2388.5	2396.3	2341.8	2228.8	2065.1	1811.8	1776.8	1394.9
17.5°	2310.6	2316.4	2365.1	2445.0	2521.0	2528.8	2427.5	2240.4	1971.6	1936.5	1529.3
20°	2230.7	2238.5	2289.2	2398.3	2546.3	2649.6	2608.7	2431.4	2123.6	2080.7	1657.9
22.5°	2320.3	2320.3	2335.9	2402.1	2536.6	2698.3	2752.8	2622.3	2279.4	2226.8	1786.5
25°	2628.1	2622.3	2589.2	2561.9	2604.8	2748.9	2861.9	2817.1	2462.5	2402.1	1922.9
27.5°	3017.8	3045.1	2982.7	2883.4	2785.9	2848.3	2959.3	3010.0	2665.2	2602.8	2063.2
30°	3454.2	3465.9	3391.8	3259.4	3087.9	3027.5	3074.3	3175.6	2885.3	2817.1	2209.3
32.5°	3847.7	3838.0	3775.6	3637.3	3425.0	3294.4	3222.3	3308.1	3124.9	3047.0	2359.3
35°	4196.5	4204.2	4128.3	3968.5	3760.1	3621.7	3450.3	3458.1	3393.8	3304.2	2532.7
37.5°	4510.1	4496.5	4424.4	4264.6	4075.7	3925.6	3744.5	3613.9	3688.0	3594.5	2727.5
40°	4765.3	4751.7	4675.7	4519.9	4342.6	4219.8	4077.6	3822.4	3997.7	3890.6	2936.0
42.5°	4967.9	4952.4	4888.1	4738.1	4566.6	4457.5	4389.3	4079.6	4328.9	4221.8	3169.7
45°	5067.3	5053.7	5014.7	4901.7	4751.7	4656.2	4689.3	4375.7	4683.5	4593.9	3426.9
47.5°	4950.4	4944.6	4989.4	4969.9	4884.2	4833.5	4948.5	4699.1	5055.6	4967.9	3723.0
50°	4595.8	4605.6	4736.1	4897.8	4938.7	4999.1	5160.8	5040.0	5455.0	5361.5	4064.0
52.5°	3721.1	3787.3	4180.9	4570.5	4872.5	5100.4	5410.2	5527.1	6105.7	6014.1	4595.8
55°	2778.2	2805.4	3234.0	3900.3	4605.6	5092.6	5595.3	5813.5	6427.2	6333.6	4736.1
57.5°	2203.4	2213.2	2425.5	3105.5	4056.2	4917.3	5692.7	5916.7	6567.4	6489.5	4944.6
60°	1730.0	1741.7	1895.6	2363.2	3282.7	4443.9	5552.4	6006.3	6842.1	6779.8	5308.9
62.5°	1346.2	1357.9	1451.4	1726.1	2462.5	3715.2	5269.9	6150.5	7364.2	7335.0	5905.0
65°	1042.3	1046.2	1110.5	1239.1	1739.8	2926.2	4925.1	6284.9	8069.5	8044.2	6388.2
67.5°	769.5	775.4	820.2	900.1	1174.8	2102.1	4360.1	6181.7	8601.4	8527.3	6563.5
69°	621.5	627.3	666.3	730.6	927.3	1656.0	3843.8	5926.5	8681.2	8611.1	6452.5
70°	531.9	535.8	574.7	629.3	791.0	1406.6	3434.7	5706.3	8576.0	8507.8	6199.2
72.5°	340.9	360.4	399.4	434.5	524.1	931.2	2318.4	4732.2	7399.3	7282.4	4854.9
75°	189.0	194.8	265.0	307.8	348.7	605.9	1289.7	2951.5	4706.9	4625.1	2597.0
77.5°	155.9	159.8	187.0	233.8	233.8	339.0	487.1	1163.1	1790.4	1615.1	703.3
80°	109.1	113.0	142.2	153.9	167.5	190.9	157.8	255.2	276.6	245.5	105.2
82.5°	76.0	79.9	97.4	126.6	134.4	89.6	58.4	76.0	79.9	79.9	40.9
85°	13.6	19.5	72.1	105.2	79.9	27.3	33.1	27.3	25.3	27.3	9.7
87.5°	0.0	0.0	44.8	50.7	42.9	11.7	13.6	9.7	5.8	7.8	3.9
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°	839.7	839.7	839.7	839.7	839.7	839.7	839.7	839.7	839.7	839.7	839.7
2.5°	845.5	804.6	734.5	683.8	641.0	607.8	594.2	572.8	557.2	565.0	555.2
5°	868.9	796.8	683.8	611.7	561.1	518.2	483.2	455.9	434.5	430.6	426.7
7.5°	905.9	802.7	654.6	565.0	489.0	422.8	368.2	327.3	296.1	296.1	284.4
10°	956.6	818.2	637.1	518.2	405.2	315.6	261.1	222.1	206.5	204.6	200.7
12.5°	1026.7	847.5	623.4	457.8	315.6	229.9	196.8	183.1	177.3	175.3	173.4
15°	1122.2	890.3	607.8	383.8	239.6	189.0	175.3	163.6	157.8	155.9	153.9
17.5°	1213.7	929.3	574.7	307.8	194.8	171.4	155.9	146.1	138.3	136.4	136.4
20°	1299.5	962.4	518.2	239.6	175.3	153.9	138.3	126.6	118.8	116.9	116.9
22.5°	1389.1	989.7	448.1	194.8	159.8	136.4	120.8	109.1	101.3	99.4	97.4
25°	1484.5	1009.2	368.2	173.4	144.2	120.8	103.3	93.5	87.7	85.7	83.8
27.5°	1587.8	1017.0	292.2	157.8	126.6	105.2	89.6	79.9	76.0	74.0	74.0
30°	1681.3	1009.2	226.0	140.3	111.0	91.6	77.9	70.1	66.2	64.3	64.3
32.5°	1778.7	989.7	181.2	124.7	97.4	77.9	66.2	60.4	58.4	56.5	56.5
35°	1882.0	964.4	155.9	111.0	83.8	68.2	58.4	54.5	52.6	50.7	50.7
37.5°	2002.8	933.2	142.2	99.4	74.0	60.4	50.7	48.7	46.8	46.8	46.8
40°	2139.1	894.2	132.5	89.6	66.2	52.6	44.8	42.9	40.9	40.9	40.9
42.5°	2283.3	849.4	122.7	79.9	58.4	44.8	39.0	39.0	37.0	37.0	35.1
45°	2445.0	804.6	113.0	70.1	50.7	39.0	33.1	31.2	31.2	29.2	29.2
47.5°	2635.9	763.7	103.3	62.3	44.8	33.1	29.2	27.3	25.3	23.4	23.4
50°	2904.8	759.8	91.6	54.5	40.9	27.3	23.4	21.4	19.5	17.5	17.5
52.5°	3171.7	724.7	77.9	44.8	33.1	23.4	17.5	15.6	13.6	13.6	11.7
55°	3232.1	666.3	68.2	39.0	25.3	17.5	13.6	9.7	9.7	7.8	7.8
57.5°	3364.6	639.0	58.4	31.2	19.5	13.6	7.8	5.8	5.8	5.8	5.8
60°	3625.6	631.2	50.7	27.3	13.6	9.7	5.8	3.9	3.9	1.9	1.9
62.5°	3986.0	623.4	42.9	23.4	9.7	5.8	3.9	1.9	0.0	0.0	0.0
65°	4184.8	570.8	35.1	17.5	7.8	5.8	1.9	0.0	0.0	0.0	0.0
67.5°	4132.2	471.5	31.2	11.7	5.8	3.9	1.9	0.0	0.0	0.0	0.0
69°	3912.0	397.4	25.3	9.7	5.8	3.9	1.9	0.0	0.0	0.0	0.0
70°	3647.1	342.9	23.4	7.8	3.9	1.9	1.9	0.0	0.0	0.0	0.0
72.5°	2589.2	179.2	15.6	5.8	3.9	1.9	0.0	0.0	0.0	0.0	0.0
75°	1209.8	79.9	9.7	3.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0
77.5°	266.9	37.0	5.8	3.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0
80°	50.7	13.6	3.9	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	17.5	5.8	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	5.8	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)