

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: P234801

Luminaire Tested: **ARCH-M-AF48-130-D-U-T2R-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234801
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-AF48-130-D-U-T2R-8027-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 845mA 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: 10231 lumens
Efficiency: N/A
Efficacy: 78.1 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): 131
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

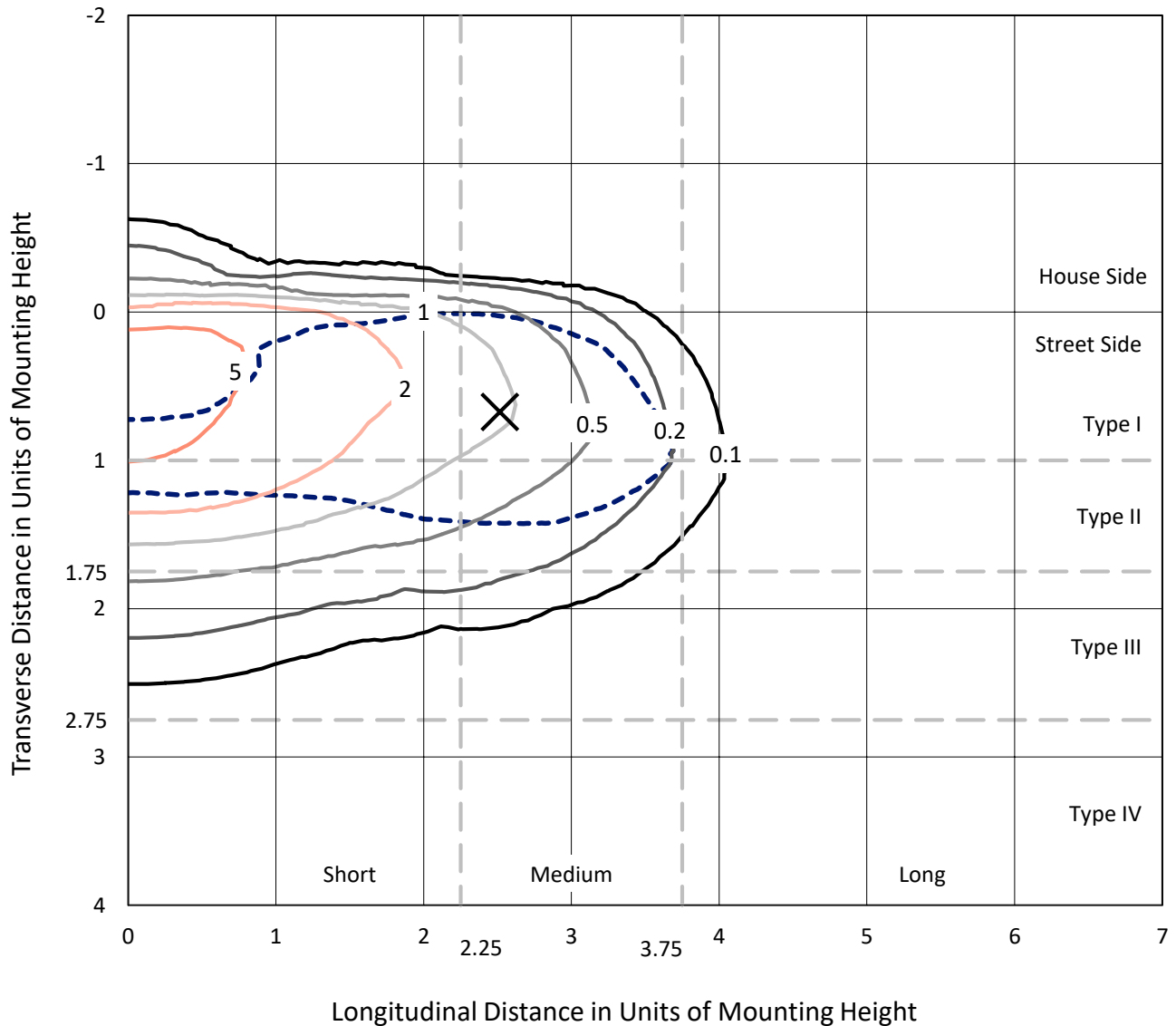


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

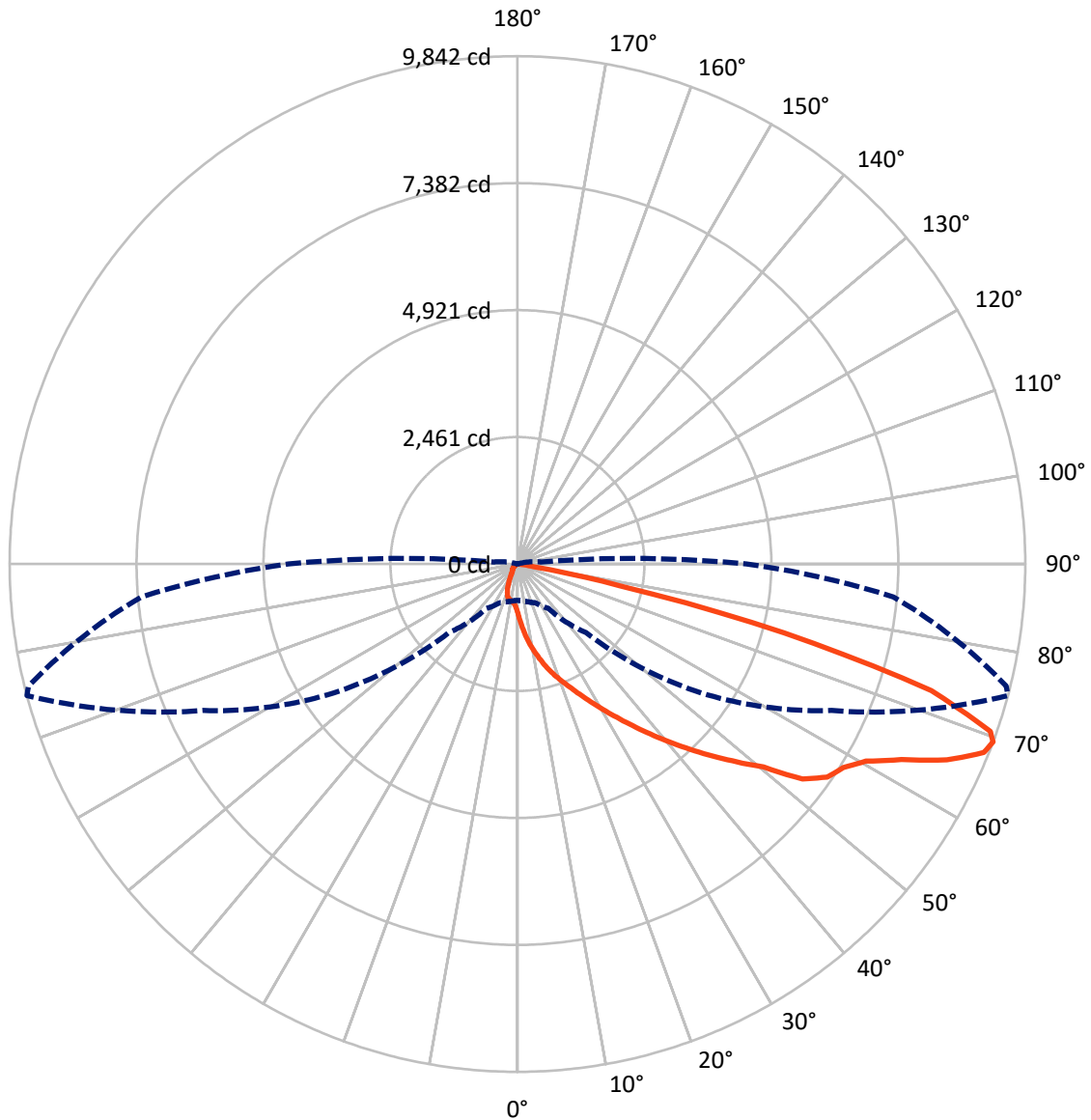


Based on 20 foot mounting height. Maximum calculated value = 6.5 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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

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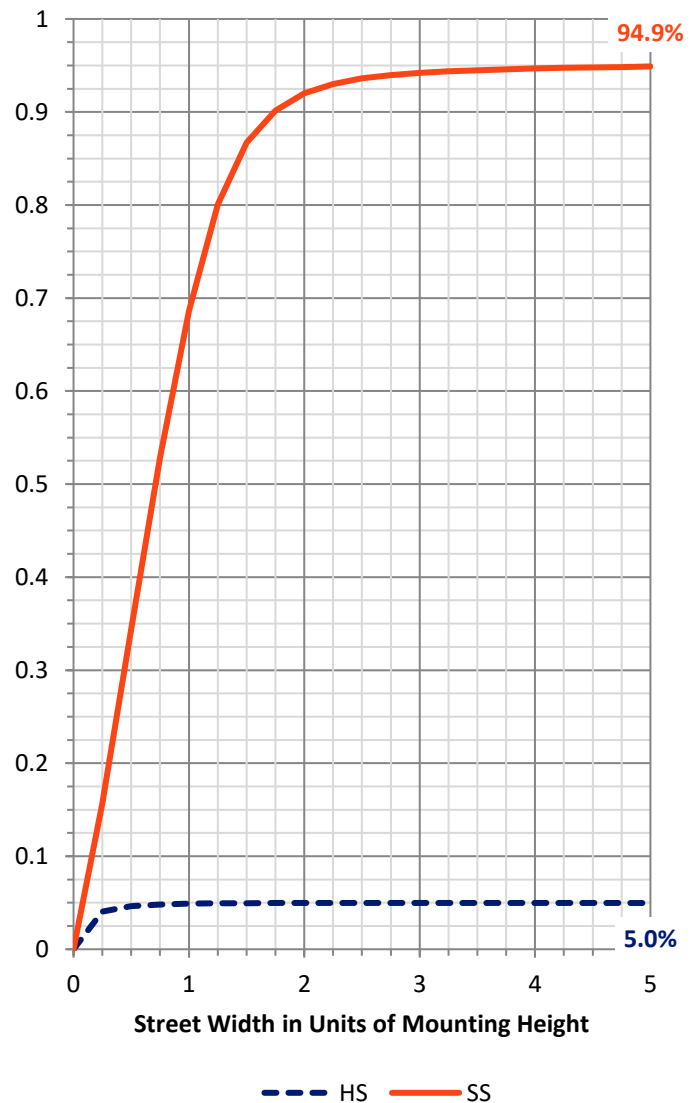
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	510.4	0.0	510.4
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	9720.5	0.0	9720.5
	% Fixture	95.0	0.0	95.0
Total	Lumens	10231.0	0.0	10231.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.0	1.1
10°-20°	396.9	3.9
20°-30°	757.6	7.4
30°-40°	1359.0	13.3
40°-50°	2082.2	20.4
50°-60°	2420.0	23.7
60°-70°	2142.9	20.9
70°-80°	924.3	9.0
80°-90°	37.0	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°	10231.0	100.0
0°-180°	10231.0	100.0

Coefficient of Utilization



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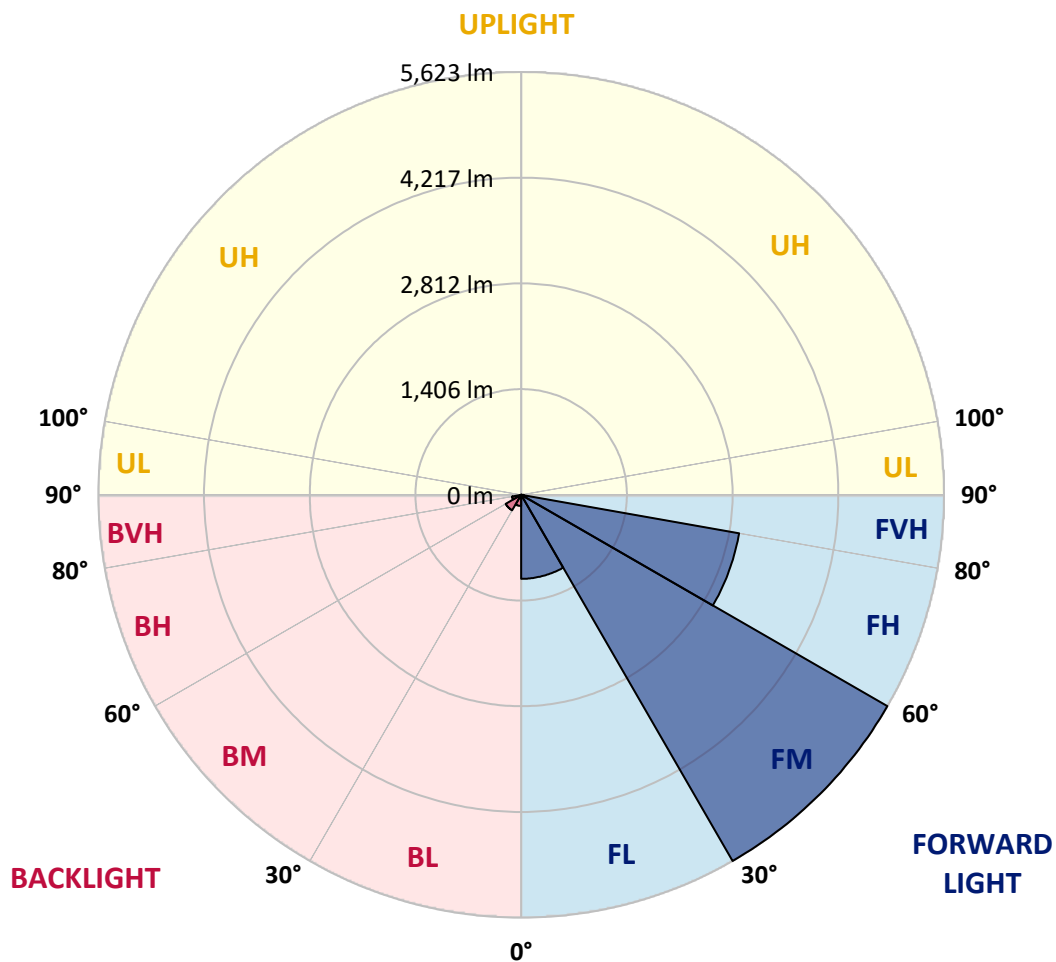
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1117.2	10.9			
FM	(30°-60°)	5623.2	55.0			
FH	(60°-80°)	2943.6	28.8			G2/5000
FVH	(80°-90°)	36.5	0.4			G1/100
BL	(0°-30°)	148.3	1.4	B1/500		
BM	(30°-60°)	238.0	2.3	B1/1000		
BH	(60°-80°)	123.7	1.2	B1/500		G1/500
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°	952.0	952.0	952.0	952.0	952.0	952.0	952.0	952.0	952.0	952.0	952.0
2.5°	1568.2	1552.8	1537.3	1519.7	1479.9	1411.4	1325.3	1232.5	1117.7	1097.8	1005.0
5°	1904.0	1897.4	1881.9	1857.6	1813.4	1738.3	1641.1	1504.2	1312.0	1278.9	1082.3
7.5°	2140.3	2135.9	2122.7	2093.9	2054.2	1979.1	1877.5	1729.5	1506.4	1468.8	1179.5
10°	2352.4	2350.2	2339.1	2312.6	2272.9	2191.1	2082.9	1928.3	1691.9	1650.0	1292.1
12.5°	2544.5	2546.7	2542.3	2529.1	2500.4	2423.0	2299.4	2131.5	1870.8	1824.5	1426.9
15°	2657.2	2663.8	2681.5	2708.0	2716.8	2655.0	2526.9	2341.3	2054.2	2014.4	1581.5
17.5°	2619.6	2626.3	2681.5	2772.0	2858.2	2867.0	2752.2	2540.1	2235.3	2195.5	1733.9
20°	2529.1	2537.9	2595.3	2719.0	2886.9	3004.0	2957.6	2756.6	2407.6	2359.0	1879.7
22.5°	2630.7	2630.7	2648.3	2723.4	2875.9	3059.2	3121.0	2973.0	2584.3	2524.7	2025.5
25°	2979.7	2973.0	2935.5	2904.6	2953.2	3116.6	3244.7	3193.9	2791.9	2723.4	2180.1
27.5°	3421.4	3452.3	3381.7	3269.0	3158.6	3229.3	3355.2	3412.6	3021.6	2951.0	2339.1
30°	3916.2	3929.4	3845.5	3695.3	3500.9	3432.5	3485.5	3600.3	3271.2	3193.9	2504.8
32.5°	4362.4	4351.3	4280.6	4123.8	3883.1	3735.1	3653.3	3750.5	3542.9	3454.6	2674.9
35°	4757.7	4766.6	4680.4	4499.3	4263.0	4106.2	3911.8	3920.6	3847.7	3746.1	2871.4
37.5°	5113.4	5097.9	5016.2	4835.1	4620.8	4450.7	4245.3	4097.3	4181.2	4075.2	3092.3
40°	5402.7	5387.3	5301.1	5124.4	4923.4	4784.3	4623.0	4333.7	4532.4	4411.0	3328.7
42.5°	5632.4	5614.8	5541.9	5371.8	5177.4	5053.7	4976.4	4625.2	4907.9	4786.5	3593.7
45°	5745.1	5729.6	5685.4	5557.3	5387.3	5279.0	5316.6	4961.0	5309.9	5208.3	3885.3
47.5°	5612.5	5605.9	5656.7	5634.6	5537.4	5480.0	5610.3	5327.6	5731.8	5632.4	4221.0
50°	5210.5	5221.6	5369.6	5552.9	5599.3	5667.8	5851.1	5714.2	6184.6	6078.6	4607.5
52.5°	4218.8	4293.9	4740.1	5181.8	5524.2	5782.6	6133.8	6266.4	6922.4	6818.6	5210.5
55°	3149.7	3180.7	3666.6	4422.0	5221.6	5773.8	6343.7	6591.0	7286.8	7180.8	5369.6
57.5°	2498.1	2509.2	2750.0	3520.8	4598.7	5575.0	6454.1	6708.1	7445.8	7357.5	5605.9
60°	1961.4	1974.7	2149.2	2679.3	3721.8	5038.3	6295.1	6809.7	7757.3	7686.6	6019.0
62.5°	1526.3	1539.5	1645.6	1957.0	2791.9	4212.2	5974.8	6973.2	8349.2	8316.1	6694.9
65°	1181.7	1186.1	1259.0	1404.8	1972.5	3317.6	5583.8	7125.6	9148.8	9120.1	7242.6
67.5°	872.5	879.1	929.9	1020.5	1331.9	2383.3	4943.3	7008.5	9751.8	9667.9	7441.4
69°	704.6	711.2	755.4	828.3	1051.4	1877.5	4358.0	6719.2	9842.4	9762.9	7315.5
70°	603.0	607.4	651.6	713.4	896.8	1594.8	3894.1	6469.6	9723.1	9645.8	7028.4
72.5°	386.5	408.6	452.8	492.6	594.2	1055.8	2628.5	5365.2	8389.0	8256.5	5504.3
75°	214.3	220.9	300.4	349.0	395.4	686.9	1462.2	3346.3	5336.4	5243.7	2944.3
77.5°	176.7	181.1	212.0	265.1	265.1	384.3	552.2	1318.7	2029.9	1831.1	797.4
80°	123.7	128.1	161.2	174.5	190.0	216.5	178.9	289.4	313.6	278.3	119.3
82.5°	86.1	90.6	110.4	143.6	152.4	101.6	66.3	86.1	90.6	90.6	46.4
85°	15.5	22.1	81.7	119.3	90.6	30.9	37.5	30.9	28.7	30.9	11.0
87.5°	0.0	0.0	50.8	57.4	48.6	13.3	15.5	11.0	6.6	8.8	4.4
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°	952.0	952.0	952.0	952.0	952.0	952.0	952.0	952.0	952.0	952.0	952.0
2.5°	958.6	912.2	832.7	775.3	726.7	689.1	673.7	649.4	631.7	640.6	629.5
5°	985.1	903.4	775.3	693.6	636.1	587.5	547.8	516.9	492.6	488.1	483.7
7.5°	1027.1	910.0	742.2	640.6	554.4	479.3	417.5	371.1	335.7	335.7	322.5
10°	1084.5	927.7	722.3	587.5	459.4	357.8	296.0	251.8	234.1	231.9	227.5
12.5°	1164.0	960.8	706.8	519.1	357.8	260.6	223.1	207.6	201.0	198.8	196.6
15°	1272.3	1009.4	689.1	435.1	271.7	214.3	198.8	185.5	178.9	176.7	174.5
17.5°	1376.1	1053.6	651.6	349.0	220.9	194.4	176.7	165.7	156.8	154.6	154.6
20°	1473.3	1091.1	587.5	271.7	198.8	174.5	156.8	143.6	134.7	132.5	132.5
22.5°	1574.9	1122.1	508.0	220.9	181.1	154.6	136.9	123.7	114.9	112.6	110.4
25°	1683.1	1144.2	417.5	196.6	163.5	136.9	117.1	106.0	99.4	97.2	95.0
27.5°	1800.2	1153.0	331.3	178.9	143.6	119.3	101.6	90.6	86.1	83.9	83.9
30°	1906.2	1144.2	256.2	159.0	125.9	103.8	88.4	79.5	75.1	72.9	72.9
32.5°	2016.6	1122.1	205.4	141.4	110.4	88.4	75.1	68.5	66.3	64.1	64.1
35°	2133.7	1093.4	176.7	125.9	95.0	77.3	66.3	61.8	59.6	57.4	57.4
37.5°	2270.6	1058.0	161.2	112.6	83.9	68.5	57.4	55.2	53.0	53.0	53.0
40°	2425.3	1013.8	150.2	101.6	75.1	59.6	50.8	48.6	46.4	46.4	46.4
42.5°	2588.7	963.0	139.2	90.6	66.3	50.8	44.2	44.2	42.0	42.0	39.8
45°	2772.0	912.2	128.1	79.5	57.4	44.2	37.5	35.3	35.3	33.1	33.1
47.5°	2988.5	865.8	117.1	70.7	50.8	37.5	33.1	30.9	28.7	26.5	26.5
50°	3293.3	861.4	103.8	61.8	46.4	30.9	26.5	24.3	22.1	19.9	19.9
52.5°	3595.9	821.7	88.4	50.8	37.5	26.5	19.9	17.7	15.5	15.5	13.3
55°	3664.4	755.4	77.3	44.2	28.7	19.9	15.5	11.0	11.0	8.8	8.8
57.5°	3814.6	724.5	66.3	35.3	22.1	15.5	8.8	6.6	6.6	6.6	6.6
60°	4110.6	715.6	57.4	30.9	15.5	11.0	6.6	4.4	4.4	2.2	2.2
62.5°	4519.2	706.8	48.6	26.5	11.0	6.6	4.4	2.2	0.0	0.0	0.0
65°	4744.5	647.2	39.8	19.9	8.8	6.6	2.2	0.0	0.0	0.0	0.0
67.5°	4684.9	534.5	35.3	13.3	6.6	4.4	2.2	0.0	0.0	0.0	0.0
69°	4435.3	450.6	28.7	11.0	6.6	4.4	2.2	0.0	0.0	0.0	0.0
70°	4134.9	388.7	26.5	8.8	4.4	2.2	2.2	0.0	0.0	0.0	0.0
72.5°	2935.5	203.2	17.7	6.6	4.4	2.2	0.0	0.0	0.0	0.0	0.0
75°	1371.7	90.6	11.0	4.4	2.2	2.2	0.0	0.0	0.0	0.0	0.0
77.5°	302.6	42.0	6.6	4.4	2.2	0.0	0.0	0.0	0.0	0.0	0.0
80°	57.4	15.5	4.4	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	19.9	6.6	2.2	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	6.6	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.2	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)