

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: P234803

Luminaire Tested: **ARCH-M-AF48-150-D-U-T2R-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234803
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-AF48-150-D-U-T2R-8027-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 970mA 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: 11297 lumens
Efficiency: N/A
Efficacy: 74.8 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): 151
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: 28.75 FT

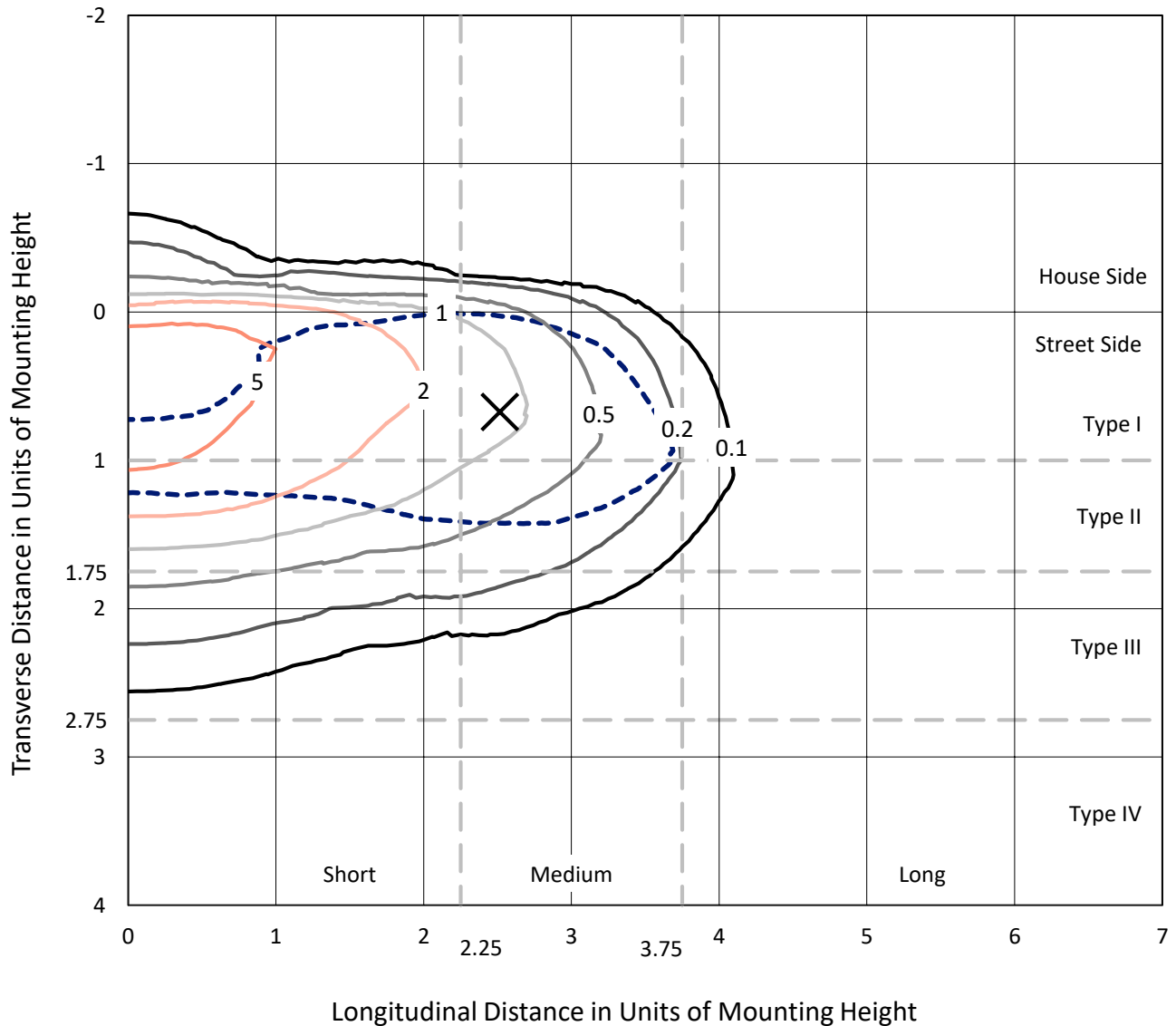


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

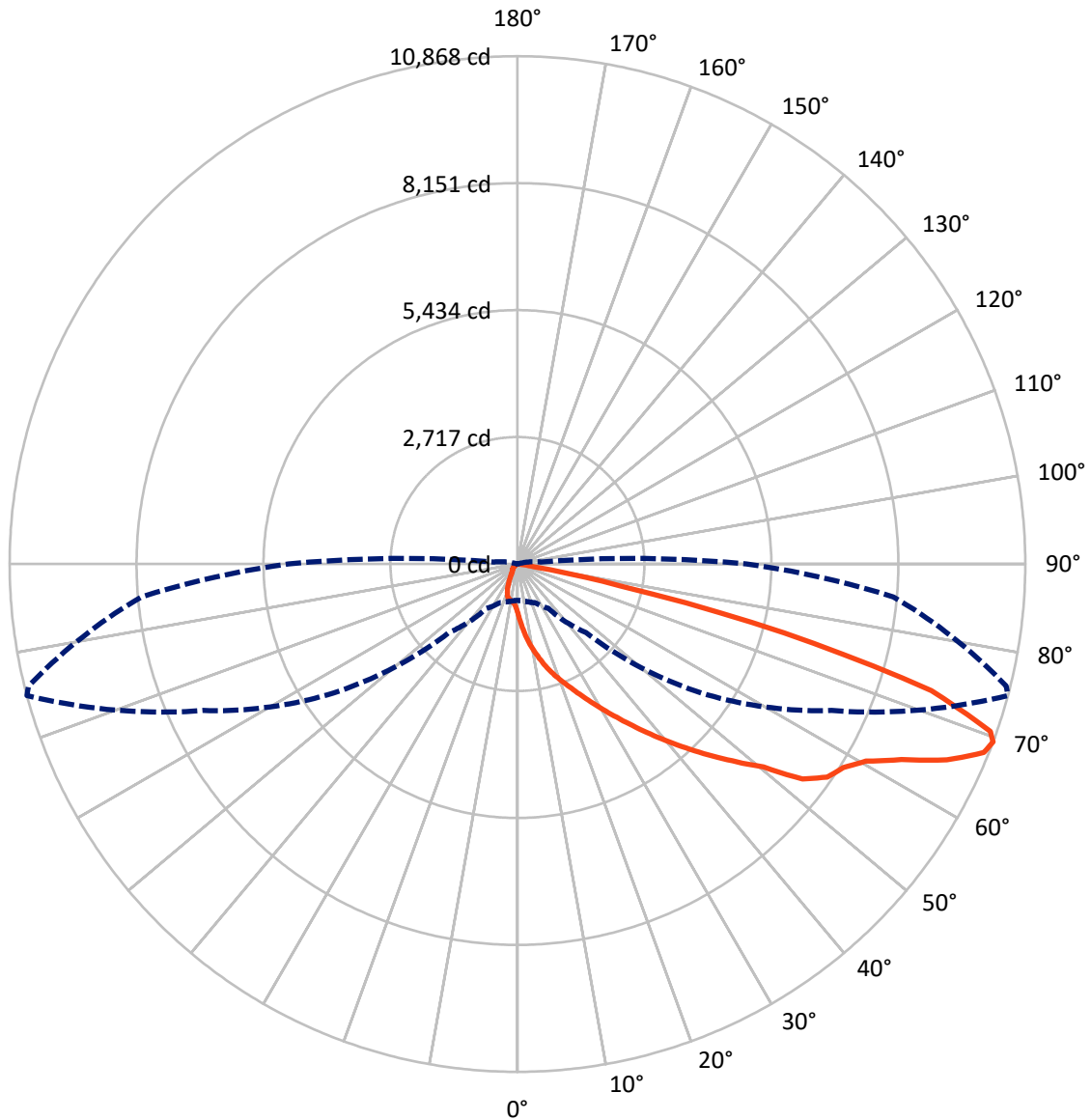


Based on 20 foot mounting height. Maximum calculated value = 7.2 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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

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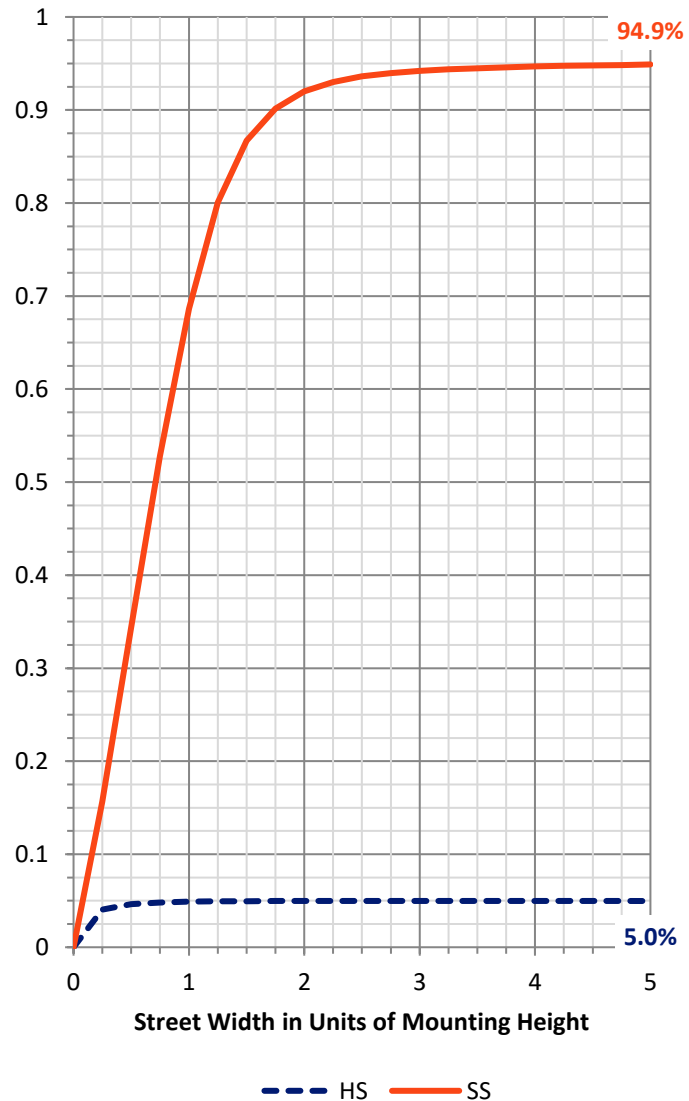
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	563.6	0.0	563.6
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	10733.4	0.0	10733.4
	% Fixture	95.0	0.0	95.0
Total	Lumens	11297.0	0.0	11297.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.6	1.1
10°-20°	438.2	3.9
20°-30°	836.6	7.4
30°-40°	1500.6	13.3
40°-50°	2299.1	20.4
50°-60°	2672.1	23.7
60°-70°	2366.2	20.9
70°-80°	1020.6	9.0
80°-90°	40.9	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°	11297.0	100.0
0°-180°	11297.0	100.0

Coefficient of Utilization



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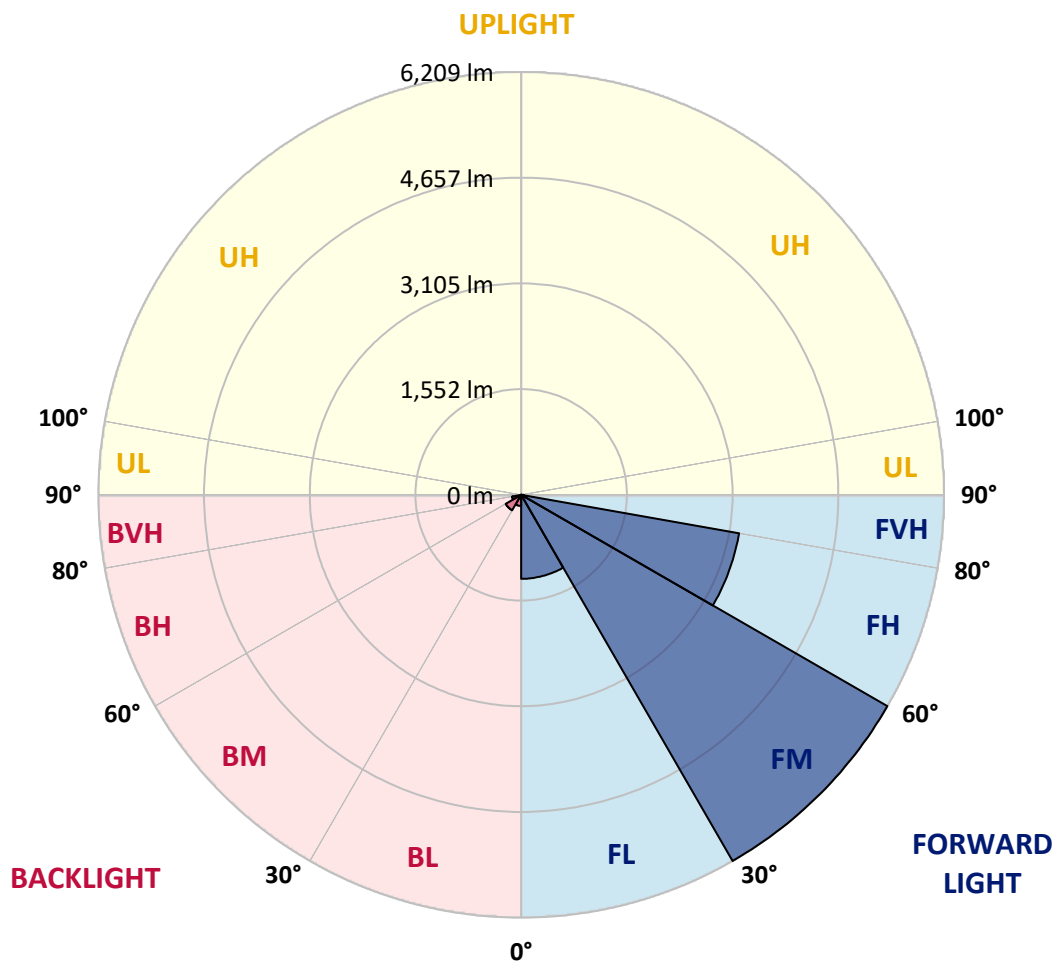
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1233.7	10.9			
FM	(30°-60°)	6209.1	55.0			
FH	(60°-80°)	3250.3	28.8			G2/5000
FVH	(80°-90°)	40.3	0.4			G1/100
BL	(0°-30°)	163.7	1.4	B1/500		
BM	(30°-60°)	262.8	2.3	B1/1000		
BH	(60°-80°)	136.6	1.2	B1/500		G1/500
BVH	(80°-90°)	0.6	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°	1051.2	1051.2	1051.2	1051.2	1051.2	1051.2	1051.2	1051.2	1051.2	1051.2	1051.2
2.5°	1731.6	1714.6	1697.5	1678.0	1634.1	1558.5	1463.4	1360.9	1234.1	1212.2	1109.7
5°	2102.4	2095.0	2078.0	2051.1	2002.4	1919.4	1812.1	1660.9	1448.7	1412.1	1195.1
7.5°	2363.3	2358.5	2343.8	2312.1	2268.2	2185.3	2073.1	1909.7	1663.4	1621.9	1302.4
10°	2597.5	2595.0	2582.8	2553.6	2509.7	2419.4	2299.9	2129.2	1868.2	1821.9	1426.8
12.5°	2809.7	2812.1	2807.2	2792.6	2760.9	2675.5	2538.9	2353.6	2065.8	2014.6	1575.6
15°	2934.0	2941.4	2960.9	2990.1	2999.9	2931.6	2790.1	2585.3	2268.2	2224.3	1746.3
17.5°	2892.6	2899.9	2960.9	3060.9	3156.0	3165.7	3038.9	2804.8	2468.2	2424.3	1914.6
20°	2792.6	2802.3	2865.8	3002.3	3187.7	3317.0	3265.7	3043.8	2658.4	2604.8	2075.5
22.5°	2904.8	2904.8	2924.3	3007.2	3175.5	3377.9	3446.2	3282.8	2853.6	2787.7	2236.5
25°	3290.1	3282.8	3241.3	3207.2	3260.9	3441.3	3582.8	3526.7	3082.8	3007.2	2407.2
27.5°	3777.9	3812.1	3734.0	3609.6	3487.7	3565.7	3704.7	3768.2	3336.5	3258.4	2582.8
30°	4324.2	4338.9	4246.2	4080.3	3865.7	3790.1	3848.6	3975.5	3612.1	3526.7	2765.8
32.5°	4816.9	4804.7	4726.7	4553.5	4287.7	4124.2	4034.0	4141.3	3912.1	3814.5	2953.6
35°	5253.5	5263.2	5168.1	4968.1	4707.1	4534.0	4319.4	4329.1	4248.6	4136.4	3170.6
37.5°	5646.1	5629.1	5538.8	5338.8	5102.3	4914.5	4687.6	4524.2	4616.9	4499.8	3414.5
40°	5965.6	5948.6	5853.4	5658.3	5436.4	5282.7	5104.7	4785.2	5004.7	4870.6	3675.5
42.5°	6219.3	6199.8	6119.3	5931.5	5716.9	5580.3	5494.9	5107.1	5419.3	5285.2	3968.1
45°	6343.7	6326.6	6277.8	6136.4	5948.6	5829.1	5870.5	5477.9	5863.2	5751.0	4290.1
47.5°	6197.3	6190.0	6246.1	6221.7	6114.4	6051.0	6194.9	5882.7	6329.0	6219.3	4660.8
50°	5753.5	5765.6	5929.1	6131.5	6182.7	6258.3	6460.7	6309.5	6829.0	6712.0	5087.6
52.5°	4658.4	4741.3	5234.0	5721.7	6099.8	6385.1	6772.9	6919.3	7643.6	7529.0	5753.5
55°	3477.9	3512.1	4048.6	4882.8	5765.6	6375.4	7004.6	7277.8	8046.1	7929.0	5929.1
57.5°	2758.4	2770.6	3036.5	3887.7	5077.9	6155.9	7126.6	7407.1	8221.7	8124.1	6190.0
60°	2165.8	2180.4	2373.1	2958.4	4109.6	5563.2	6951.0	7519.2	8565.5	8487.5	6646.1
62.5°	1685.3	1699.9	1817.0	2160.9	3082.8	4651.1	6597.3	7699.7	9219.2	9182.6	7392.4
65°	1304.8	1309.7	1390.2	1551.2	2178.0	3663.3	6165.6	7868.0	10102.1	10070.4	7997.3
67.5°	963.4	970.7	1026.8	1126.8	1470.7	2631.6	5458.3	7738.7	10767.9	10675.2	8216.8
69°	778.0	785.3	834.1	914.6	1160.9	2073.1	4812.0	7419.2	10867.9	10780.1	8077.8
70°	665.8	670.7	719.5	787.8	990.2	1760.9	4299.8	7143.6	10736.2	10650.8	7760.7
72.5°	426.8	451.2	500.0	543.9	656.1	1165.8	2902.3	5924.2	9263.1	9116.7	6077.8
75°	236.6	243.9	331.7	385.4	436.6	758.5	1614.6	3695.0	5892.5	5790.0	3251.1
77.5°	195.1	200.0	234.1	292.7	292.7	424.4	609.7	1456.0	2241.4	2021.9	880.5
80°	136.6	141.5	178.0	192.7	209.7	239.0	197.6	319.5	346.3	307.3	131.7
82.5°	95.1	100.0	121.9	158.5	168.3	112.2	73.2	95.1	100.0	100.0	51.2
85°	17.1	24.4	90.2	131.7	100.0	34.1	41.5	34.1	31.7	34.1	12.2
87.5°	0.0	0.0	56.1	63.4	53.7	14.6	17.1	12.2	7.3	9.8	4.9
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°	1051.2	1051.2	1051.2	1051.2	1051.2	1051.2	1051.2	1051.2	1051.2	1051.2	1051.2
2.5°	1058.5	1007.3	919.5	856.1	802.4	760.9	743.9	717.0	697.5	707.3	695.1
5°	1087.8	997.5	856.1	765.8	702.4	648.8	604.9	570.7	543.9	539.0	534.1
7.5°	1134.1	1004.8	819.5	707.3	612.2	529.2	461.0	409.7	370.7	370.7	356.1
10°	1197.5	1024.4	797.5	648.8	507.3	395.1	326.8	278.0	258.5	256.1	251.2
12.5°	1285.3	1060.9	780.5	573.2	395.1	287.8	246.3	229.3	221.9	219.5	217.1
15°	1404.8	1114.6	760.9	480.5	300.0	236.6	219.5	204.9	197.6	195.1	192.7
17.5°	1519.5	1163.4	719.5	385.4	243.9	214.6	195.1	182.9	173.2	170.7	170.7
20°	1626.8	1204.8	648.8	300.0	219.5	192.7	173.2	158.5	148.8	146.3	146.3
22.5°	1739.0	1239.0	561.0	243.9	200.0	170.7	151.2	136.6	126.8	124.4	121.9
25°	1858.5	1263.4	461.0	217.1	180.5	151.2	129.3	117.1	109.8	107.3	104.9
27.5°	1987.7	1273.1	365.8	197.6	158.5	131.7	112.2	100.0	95.1	92.7	92.7
30°	2104.8	1263.4	282.9	175.6	139.0	114.6	97.6	87.8	82.9	80.5	80.5
32.5°	2226.7	1239.0	226.8	156.1	121.9	97.6	82.9	75.6	73.2	70.7	70.7
35°	2356.0	1207.3	195.1	139.0	104.9	85.4	73.2	68.3	65.9	63.4	63.4
37.5°	2507.2	1168.3	178.0	124.4	92.7	75.6	63.4	61.0	58.5	58.5	58.5
40°	2678.0	1119.5	165.8	112.2	82.9	65.9	56.1	53.7	51.2	51.2	51.2
42.5°	2858.4	1063.4	153.7	100.0	73.2	56.1	48.8	48.8	46.3	46.3	43.9
45°	3060.9	1007.3	141.5	87.8	63.4	48.8	41.5	39.0	39.0	36.6	36.6
47.5°	3299.9	956.1	129.3	78.0	56.1	41.5	36.6	34.1	31.7	29.3	29.3
50°	3636.5	951.2	114.6	68.3	51.2	34.1	29.3	26.8	24.4	22.0	22.0
52.5°	3970.6	907.3	97.6	56.1	41.5	29.3	22.0	19.5	17.1	17.1	14.6
55°	4046.2	834.1	85.4	48.8	31.7	22.0	17.1	12.2	12.2	9.8	9.8
57.5°	4212.0	800.0	73.2	39.0	24.4	17.1	9.8	7.3	7.3	7.3	7.3
60°	4538.9	790.2	63.4	34.1	17.1	12.2	7.3	4.9	4.9	2.4	2.4
62.5°	4990.1	780.5	53.7	29.3	12.2	7.3	4.9	2.4	0.0	0.0	0.0
65°	5238.8	714.6	43.9	22.0	9.8	7.3	2.4	0.0	0.0	0.0	0.0
67.5°	5173.0	590.2	39.0	14.6	7.3	4.9	2.4	0.0	0.0	0.0	0.0
69°	4897.4	497.5	31.7	12.2	7.3	4.9	2.4	0.0	0.0	0.0	0.0
70°	4565.7	429.3	29.3	9.8	4.9	2.4	2.4	0.0	0.0	0.0	0.0
72.5°	3241.3	224.4	19.5	7.3	4.9	2.4	0.0	0.0	0.0	0.0	0.0
75°	1514.6	100.0	12.2	4.9	2.4	2.4	0.0	0.0	0.0	0.0	0.0
77.5°	334.1	46.3	7.3	4.9	2.4	0.0	0.0	0.0	0.0	0.0	0.0
80°	63.4	17.1	4.9	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	22.0	7.3	2.4	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	7.3	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.4	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)