

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: P265852

Luminaire Tested: **ARCH-M-AF48-150-D-U-T2R-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265852
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-7027-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 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: 12632.7 lumens
Efficiency: N/A
Efficacy: 83.7 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

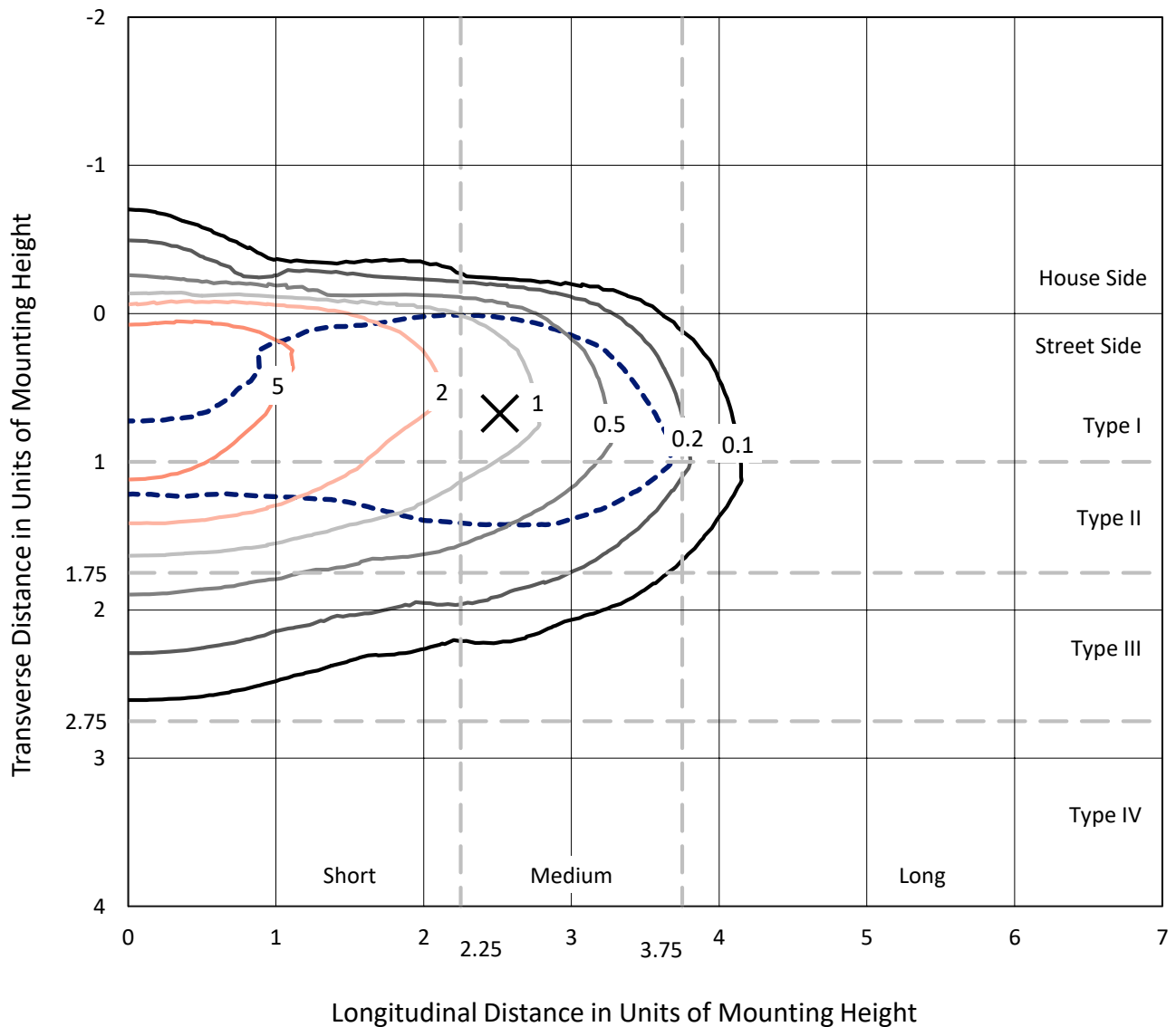


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

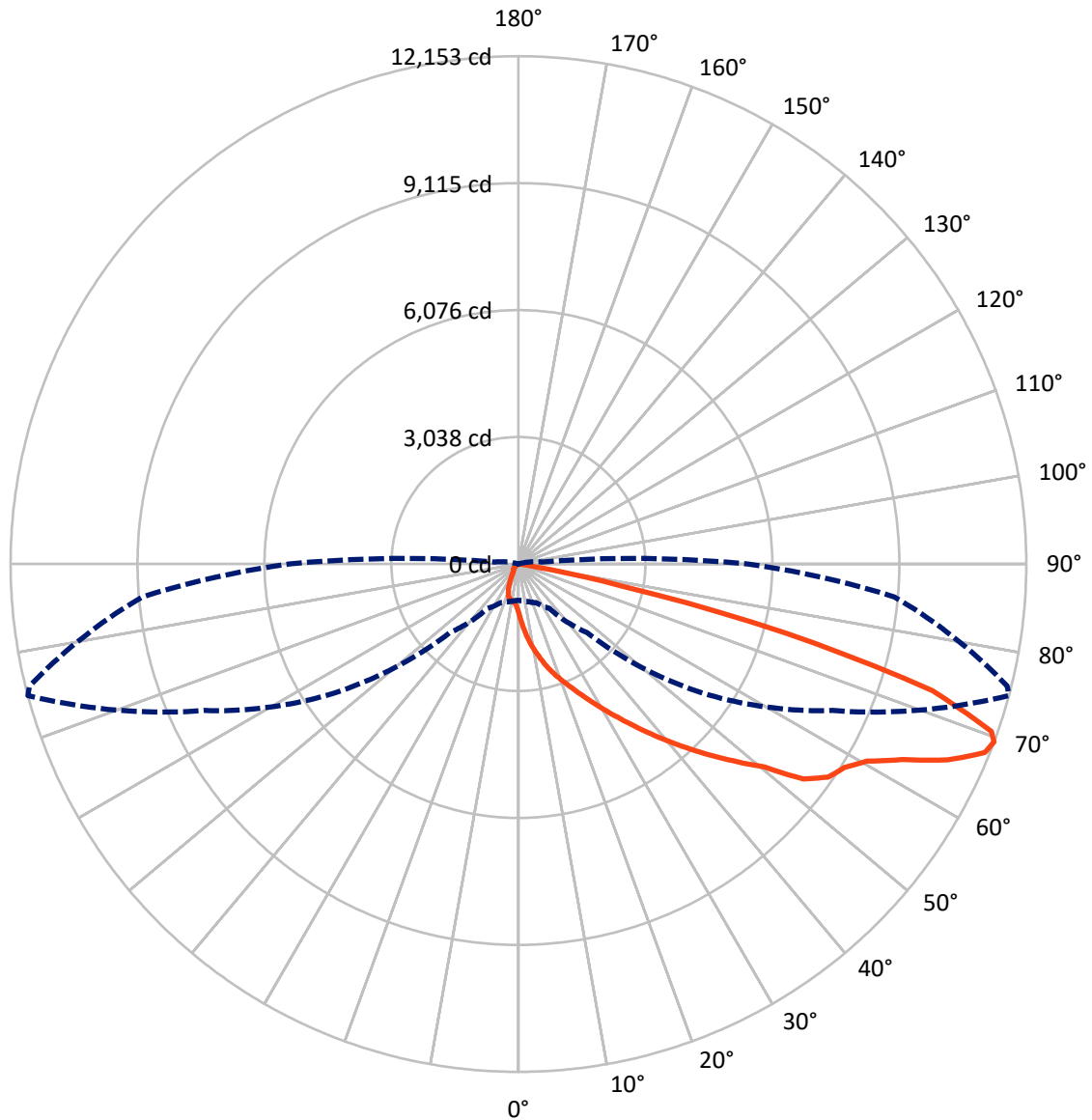


Based on 20 foot mounting height. Maximum calculated value = 8 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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

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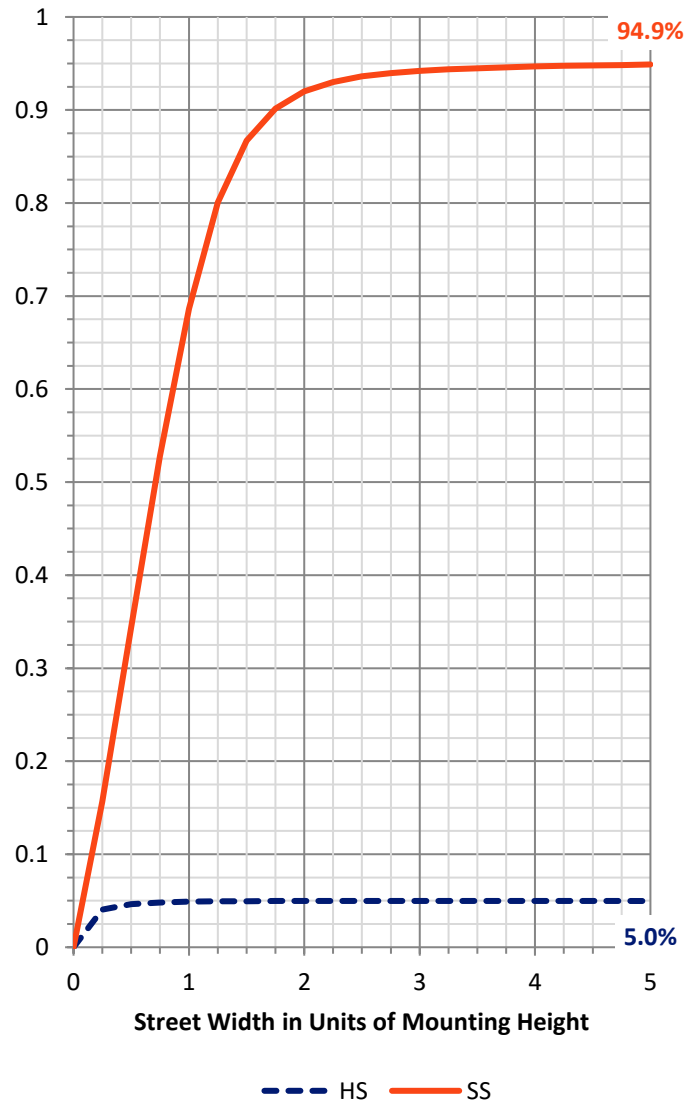
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	630.3	0.0	630.3
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	12002.4	0.0	12002.4
	% Fixture	95.0	0.0	95.0
Total	Lumens	12632.7	0.0	12632.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.1	1.1
10°-20°	490.0	3.9
20°-30°	935.5	7.4
30°-40°	1678.1	13.3
40°-50°	2570.9	20.4
50°-60°	2988.1	23.7
60°-70°	2646.0	20.9
70°-80°	1141.3	9.0
80°-90°	45.7	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°	12632.7	100.0
0°-180°	12632.7	100.0



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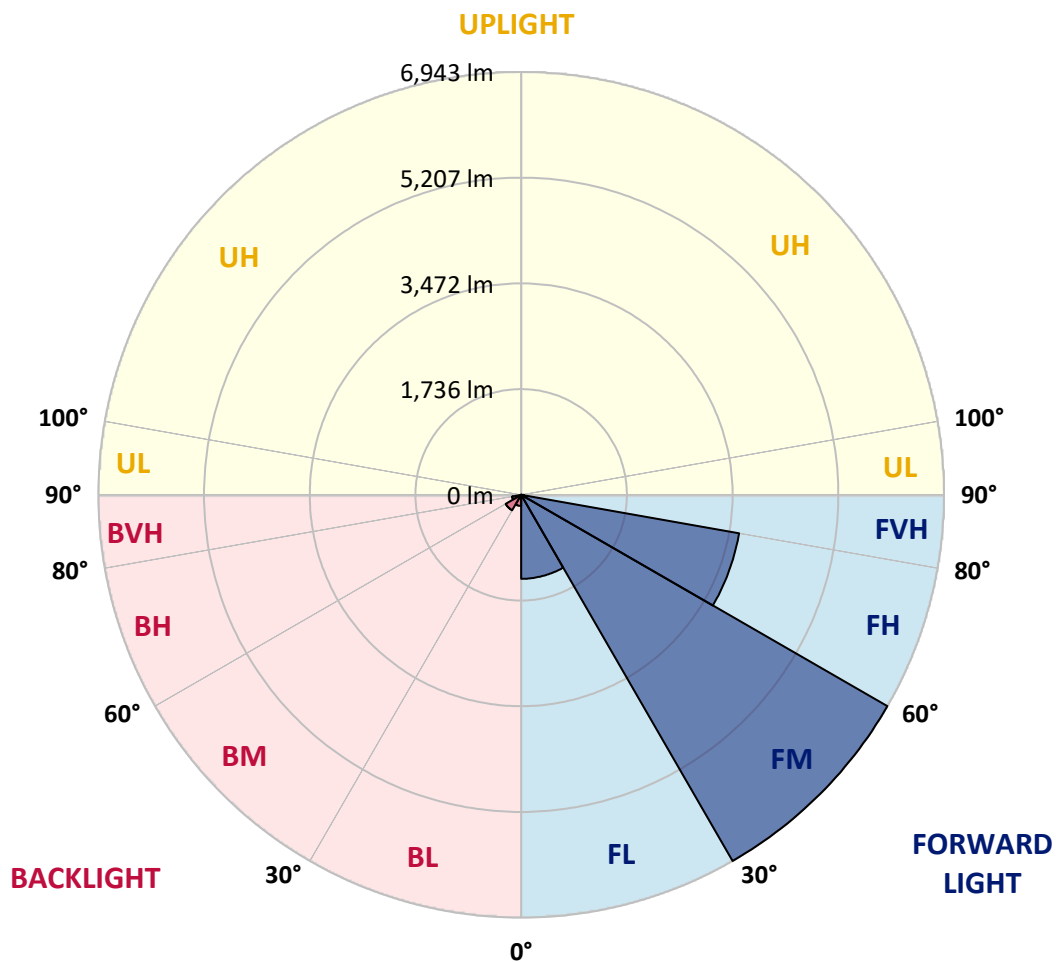
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1379.5	10.9			
FM	(30°-60°)	6943.2	55.0			
FH	(60°-80°)	3634.6	28.8			G2/5000
FVH	(80°-90°)	45.1	0.4			G1/100
BL	(0°-30°)	183.1	1.4	B1/500		
BM	(30°-60°)	293.9	2.3	B1/1000		
BH	(60°-80°)	152.7	1.2	B1/500		G1/500
BVH	(80°-90°)	0.7	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°	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4
2.5°	1936.3	1917.3	1898.2	1876.4	1827.3	1742.7	1636.4	1521.8	1379.9	1355.5	1240.9
5°	2351.0	2342.7	2323.6	2293.6	2239.1	2146.4	2026.3	1857.2	1620.1	1579.1	1336.4
7.5°	2642.8	2637.3	2621.0	2585.5	2536.4	2443.7	2318.2	2135.5	1860.0	1813.7	1456.4
10°	2904.6	2901.9	2888.2	2855.5	2806.3	2705.4	2571.8	2380.9	2089.1	2037.3	1595.5
12.5°	3141.8	3144.5	3139.0	3122.8	3087.2	2991.9	2839.2	2631.9	2310.0	2252.7	1761.8
15°	3280.9	3289.1	3311.0	3343.6	3354.6	3278.3	3120.1	2890.9	2536.4	2487.2	1952.7
17.5°	3234.5	3242.7	3311.0	3422.7	3529.1	3540.0	3398.2	3136.4	2760.0	2710.9	2140.9
20°	3122.8	3133.6	3204.6	3357.2	3564.6	3709.1	3651.8	3403.7	2972.8	2912.8	2321.0
22.5°	3248.2	3248.2	3270.0	3362.7	3550.9	3777.4	3853.6	3671.0	3190.9	3117.3	2500.9
25°	3679.1	3671.0	3624.7	3586.5	3646.4	3848.2	4006.4	3943.6	3447.2	3362.7	2691.9
27.5°	4224.5	4262.7	4175.5	4036.4	3900.0	3987.2	4142.8	4213.7	3730.9	3643.6	2888.2
30°	4835.4	4851.8	4748.3	4562.9	4322.7	4238.3	4303.7	4445.5	4039.0	3943.6	3092.8
32.5°	5386.3	5372.8	5285.4	5091.9	4794.6	4611.9	4511.0	4630.9	4374.6	4265.5	3302.8
35°	5874.6	5885.4	5779.2	5555.5	5263.7	5070.0	4830.0	4841.0	4751.0	4625.6	3545.5
37.5°	6313.6	6294.7	6193.6	5970.0	5705.4	5495.6	5241.9	5059.2	5162.7	5031.9	3818.2
40°	6671.0	6651.9	6545.5	6327.3	6079.1	5907.3	5708.2	5350.9	5596.4	5446.5	4110.0
42.5°	6954.6	6932.8	6842.7	6632.7	6392.8	6240.0	6144.5	5711.0	6060.1	5910.0	4437.3
45°	7093.6	7074.6	7020.1	6861.9	6651.9	6518.2	6564.6	6125.5	6556.4	6431.0	4797.3
47.5°	6930.1	6921.9	6984.6	6957.4	6837.3	6766.5	6927.3	6578.2	7077.3	6954.6	5211.8
50°	6433.8	6447.3	6630.0	6856.5	6913.6	6998.2	7224.6	7055.5	7636.4	7505.5	5689.1
52.5°	5209.1	5301.8	5852.7	6398.3	6821.0	7140.1	7573.7	7737.3	8547.4	8419.2	6433.8
55°	3889.1	3927.3	4527.3	5460.1	6447.3	7129.2	7832.9	8138.3	8997.3	8866.5	6630.0
57.5°	3084.6	3098.3	3395.5	4347.3	5678.2	6883.7	7969.1	8282.8	9193.8	9084.6	6921.9
60°	2421.8	2438.2	2653.7	3308.2	4595.5	6220.9	7772.8	8408.2	9578.3	9491.0	7431.9
62.5°	1884.6	1901.0	2031.8	2416.4	3447.2	5200.9	7377.3	8610.1	10309.2	10268.3	8266.5
65°	1459.0	1464.5	1554.5	1734.5	2435.5	4096.5	6894.6	8798.3	11296.5	11261.1	8942.7
67.5°	1077.2	1085.4	1148.3	1260.1	1644.5	2942.8	6103.7	8653.7	12041.1	11937.3	9188.3
69°	870.0	878.3	932.7	1022.7	1298.2	2318.2	5380.9	8296.4	12152.8	12054.6	9032.7
70°	744.5	750.1	804.5	880.9	1107.3	1969.2	4808.2	7988.3	12005.6	11910.1	8678.3
72.5°	477.3	504.6	559.0	608.2	733.6	1303.6	3245.4	6624.6	10358.3	10194.7	6796.3
75°	264.6	272.7	370.9	430.8	488.1	848.2	1805.5	4131.8	6589.2	6474.7	3635.5
77.5°	218.2	223.7	261.9	327.3	327.3	474.6	681.9	1628.2	2506.5	2260.9	984.5
80°	152.7	158.2	199.1	215.5	234.5	267.2	221.0	357.3	387.3	343.6	147.3
82.5°	106.4	111.7	136.4	177.2	188.1	125.5	81.8	106.4	111.7	111.7	57.3
85°	19.1	27.3	100.9	147.3	111.7	38.2	46.4	38.2	35.5	38.2	13.7
87.5°	0.0	0.0	62.7	70.8	59.9	16.3	19.1	13.7	8.2	10.9	5.5
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°	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4	1175.4
2.5°	1183.6	1126.4	1028.2	957.2	897.2	851.0	831.8	801.8	780.0	790.9	777.3
5°	1216.3	1115.4	957.2	856.4	785.5	725.4	676.3	638.2	608.2	602.8	597.3
7.5°	1268.1	1123.6	916.5	790.9	684.6	591.9	515.4	458.1	414.6	414.6	398.2
10°	1339.2	1145.5	891.8	725.4	567.3	441.8	365.5	311.0	289.1	286.4	280.9
12.5°	1437.3	1186.4	872.8	640.9	441.8	321.9	275.5	256.3	248.2	245.4	242.7
15°	1571.0	1246.4	851.0	537.2	335.4	264.6	245.4	229.1	221.0	218.2	215.5
17.5°	1699.1	1300.9	804.5	430.8	272.7	239.9	218.2	204.5	193.7	190.9	190.9
20°	1819.1	1347.3	725.4	335.4	245.4	215.5	193.7	177.2	166.4	163.6	163.6
22.5°	1944.6	1385.5	627.2	272.7	223.7	190.9	169.2	152.7	141.8	139.1	136.4
25°	2078.1	1412.8	515.4	242.7	201.8	169.2	144.5	131.0	122.7	120.1	117.3
27.5°	2222.8	1423.6	409.1	221.0	177.2	147.3	125.5	111.7	106.4	103.7	103.7
30°	2353.6	1412.8	316.4	196.4	155.4	128.2	109.1	98.2	92.7	90.0	90.0
32.5°	2490.0	1385.5	253.6	174.5	136.4	109.1	92.7	84.5	81.8	79.1	79.1
35°	2634.5	1350.1	218.2	155.4	117.3	95.5	81.8	76.4	73.7	70.8	70.8
37.5°	2803.7	1306.3	199.1	139.1	103.7	84.5	70.8	68.2	65.4	65.4	65.4
40°	2994.6	1251.8	185.5	125.5	92.7	73.7	62.7	59.9	57.3	57.3	57.3
42.5°	3196.3	1189.0	171.8	111.7	81.8	62.7	54.5	54.5	51.8	51.8	49.0
45°	3422.7	1126.4	158.2	98.2	70.8	54.5	46.4	43.7	43.7	41.0	41.0
47.5°	3690.1	1069.2	144.5	87.2	62.7	46.4	41.0	38.2	35.5	32.7	32.7
50°	4066.4	1063.7	128.2	76.4	57.3	38.2	32.7	30.1	27.3	24.6	24.6
52.5°	4440.1	1014.5	109.1	62.7	46.4	32.7	24.6	21.7	19.1	19.1	16.3
55°	4524.6	932.7	95.5	54.5	35.5	24.6	19.1	13.7	13.7	10.9	10.9
57.5°	4710.1	894.5	81.8	43.7	27.3	19.1	10.9	8.2	8.2	8.2	8.2
60°	5075.6	883.7	70.8	38.2	19.1	13.7	8.2	5.5	5.5	2.8	2.8
62.5°	5580.0	872.8	59.9	32.7	13.7	8.2	5.5	2.8	0.0	0.0	0.0
65°	5858.2	799.1	49.0	24.6	10.9	8.2	2.8	0.0	0.0	0.0	0.0
67.5°	5784.5	660.1	43.7	16.3	8.2	5.5	2.8	0.0	0.0	0.0	0.0
69°	5476.3	556.4	35.5	13.7	8.2	5.5	2.8	0.0	0.0	0.0	0.0
70°	5105.4	480.1	32.7	10.9	5.5	2.8	2.8	0.0	0.0	0.0	0.0
72.5°	3624.7	250.8	21.7	8.2	5.5	2.8	0.0	0.0	0.0	0.0	0.0
75°	1693.7	111.7	13.7	5.5	2.8	2.8	0.0	0.0	0.0	0.0	0.0
77.5°	373.6	51.8	8.2	5.5	2.8	0.0	0.0	0.0	0.0	0.0	0.0
80°	70.8	19.1	5.5	2.8	2.8	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	24.6	8.2	2.8	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	8.2	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.8	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)