

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: P234798

Luminaire Tested: **ARCH-M-AF48-100-D-U-T2R-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234798
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-AF48-100-D-U-T2R-8027-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 660mA 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: 8437 lumens
Efficiency: N/A
Efficacy: 83.5 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): 101
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

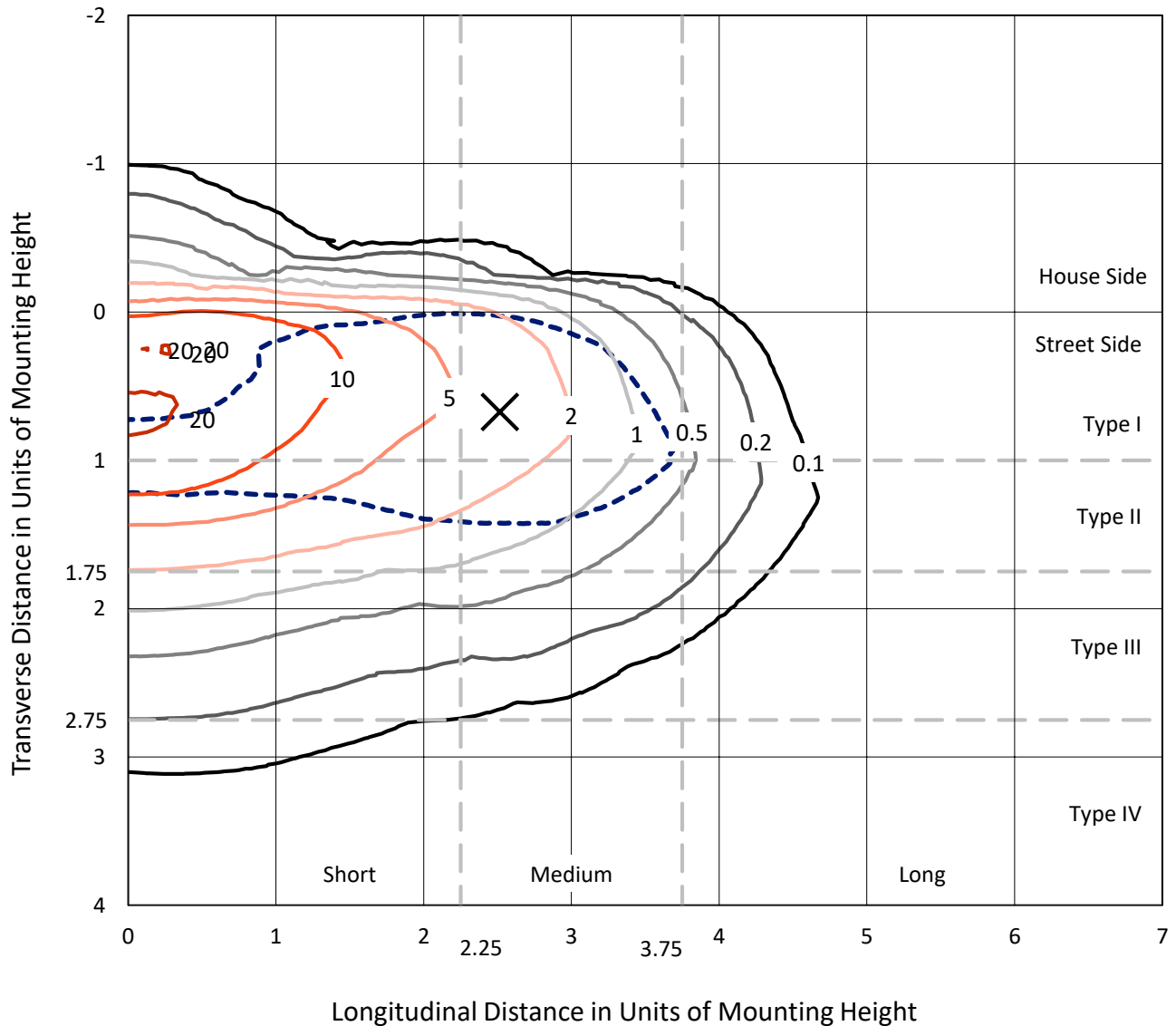


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

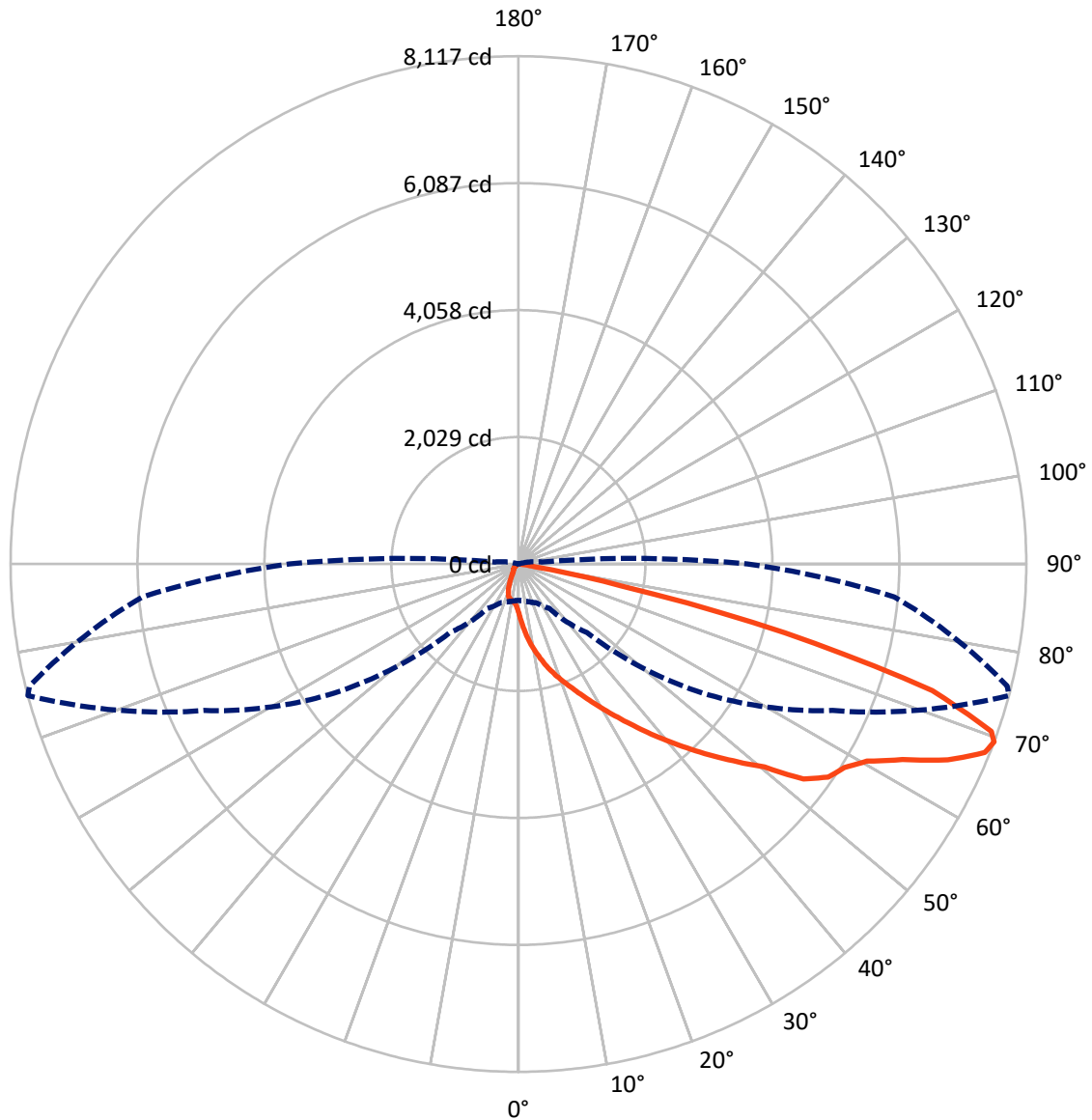


Based on 10 foot mounting height. Maximum calculated value = 21.5 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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

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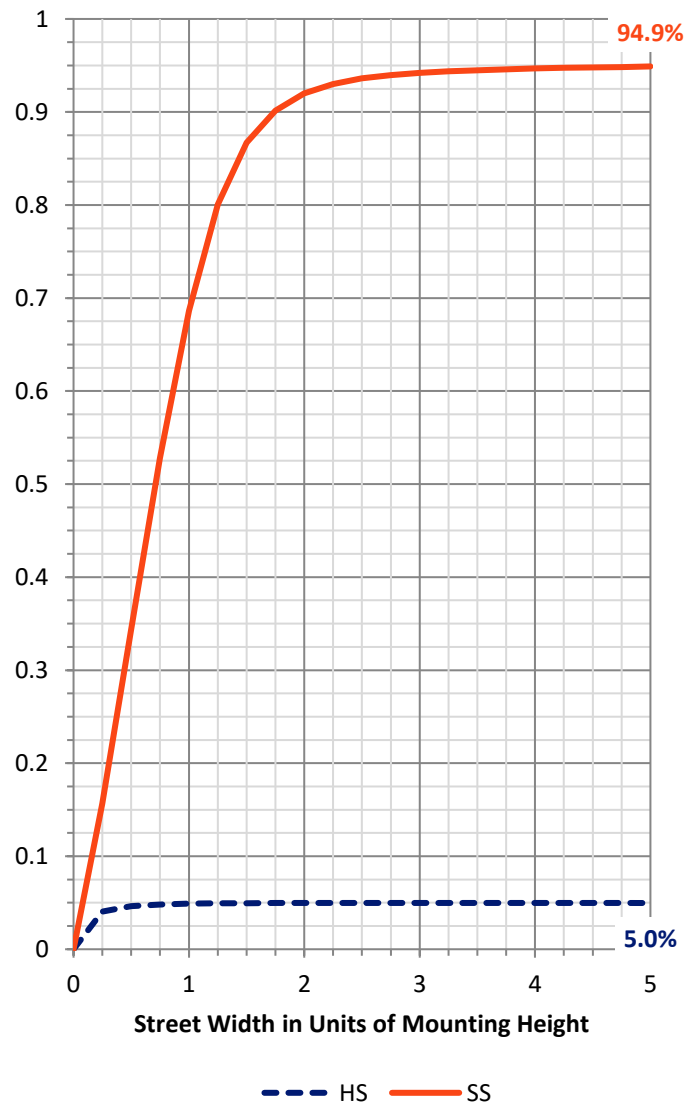
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	420.9	0.0	420.9
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	8016.1	0.0	8016.1
	% Fixture	95.0	0.0	95.0
Total	Lumens	8437.0	0.0	8437.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.5	1.1
10°-20°	327.3	3.9
20°-30°	624.8	7.4
30°-40°	1120.7	13.3
40°-50°	1717.1	20.4
50°-60°	1995.6	23.7
60°-70°	1767.2	20.9
70°-80°	762.2	9.0
80°-90°	30.5	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°	8437.0	100.0
0°-180°	8437.0	100.0

Coefficient of Utilization



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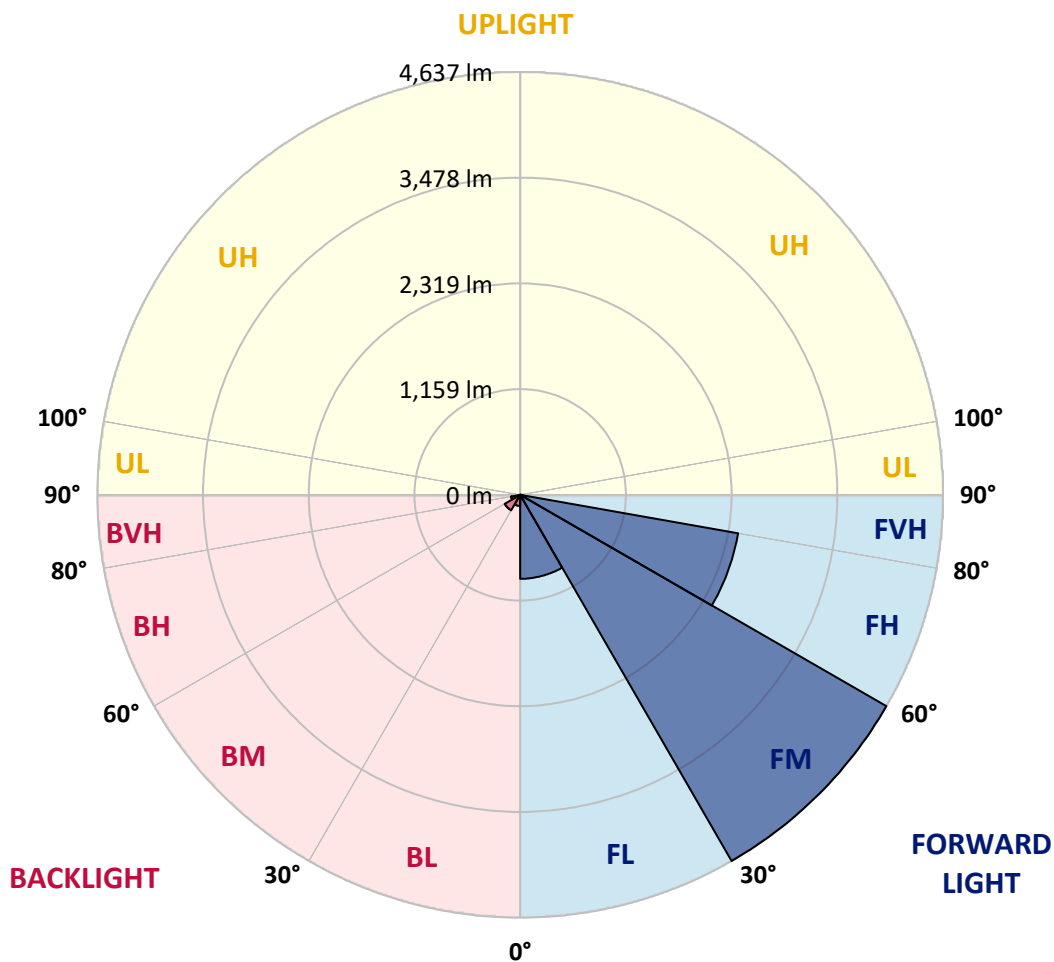
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	921.3	10.9			
FM	(30°-60°)	4637.2	55.0			
FH	(60°-80°)	2427.4	28.8			G2/5000
FVH	(80°-90°)	30.1	0.4			G1/100
BL	(0°-30°)	122.3	1.4	B1/500		
BM	(30°-60°)	196.3	2.3	B0/220		
BH	(60°-80°)	102.0	1.2	B0/110		G0/110
BVH	(80°-90°)	0.4	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°	785.1	785.1	785.1	785.1	785.1	785.1	785.1	785.1	785.1	785.1	785.1
2.5°	1293.3	1280.5	1267.8	1253.2	1220.4	1163.9	1092.9	1016.4	921.7	905.3	828.8
5°	1570.1	1564.7	1551.9	1531.9	1495.4	1433.5	1353.4	1240.4	1082.0	1054.6	892.5
7.5°	1765.0	1761.4	1750.4	1726.8	1694.0	1632.0	1548.3	1426.2	1242.3	1211.3	972.7
10°	1939.9	1938.1	1929.0	1907.1	1874.3	1806.9	1717.7	1590.2	1395.3	1360.6	1065.6
12.5°	2098.3	2100.2	2096.5	2085.6	2061.9	1998.2	1896.2	1757.7	1542.8	1504.5	1176.7
15°	2191.2	2196.7	2211.3	2233.1	2240.4	2189.4	2083.8	1930.8	1694.0	1661.2	1304.2
17.5°	2160.3	2165.7	2211.3	2286.0	2357.0	2364.3	2269.6	2094.7	1843.3	1810.6	1429.9
20°	2085.6	2092.9	2140.2	2242.2	2380.7	2477.2	2439.0	2273.2	1985.4	1945.3	1550.1
22.5°	2169.4	2169.4	2184.0	2245.9	2371.6	2522.8	2573.8	2451.7	2131.1	2082.0	1670.3
25°	2457.2	2451.7	2420.8	2395.3	2435.3	2570.1	2675.8	2633.9	2302.4	2245.9	1797.8
27.5°	2821.5	2847.0	2788.7	2695.8	2604.7	2663.0	2766.8	2814.2	2491.8	2433.5	1929.0
30°	3229.5	3240.4	3171.2	3047.3	2887.1	2830.6	2874.3	2969.0	2697.6	2633.9	2065.6
32.5°	3597.4	3588.3	3530.0	3400.7	3202.2	3080.1	3012.7	3092.9	2921.7	2848.8	2205.8
35°	3923.5	3930.8	3859.7	3710.4	3515.5	3386.1	3225.8	3233.1	3173.0	3089.2	2367.9
37.5°	4216.7	4204.0	4136.6	3987.2	3810.5	3670.3	3500.9	3378.9	3448.1	3360.6	2550.1
40°	4455.4	4442.6	4371.6	4225.8	4060.1	3945.3	3812.4	3573.8	3737.7	3637.5	2745.0
42.5°	4644.8	4630.2	4570.1	4429.8	4269.6	4167.6	4103.8	3814.2	4047.3	3947.2	2963.6
45°	4737.7	4724.9	4688.5	4582.9	4442.6	4353.3	4384.3	4091.1	4378.8	4295.1	3204.0
47.5°	4628.4	4622.9	4664.8	4646.6	4566.5	4519.1	4626.6	4393.4	4726.8	4644.8	3480.9
50°	4296.9	4306.0	4428.0	4579.2	4617.5	4673.9	4825.1	4712.2	5100.2	5012.7	3799.6
52.5°	3479.0	3541.0	3908.9	4273.2	4555.5	4768.6	5058.3	5167.6	5708.5	5622.9	4296.9
55°	2597.4	2622.9	3023.7	3646.6	4306.0	4761.4	5231.3	5435.3	6009.1	5921.6	4428.0
57.5°	2060.1	2069.2	2267.7	2903.4	3792.3	4597.4	5322.4	5531.8	6140.2	6067.4	4622.9
60°	1617.5	1628.4	1772.3	2209.5	3069.2	4154.8	5191.2	5615.6	6397.1	6338.8	4963.5
62.5°	1258.6	1269.6	1357.0	1613.8	2302.4	3473.6	4927.1	5750.4	6885.2	6857.9	5520.9
65°	974.5	978.1	1038.2	1158.5	1626.6	2735.9	4604.7	5876.1	7544.6	7520.9	5972.6
67.5°	719.5	725.0	766.8	841.5	1098.4	1965.4	4076.5	5779.6	8041.9	7972.6	6136.6
69°	581.1	586.5	622.9	683.1	867.0	1548.3	3593.8	5541.0	8116.5	8051.0	6032.8
70°	497.3	500.9	537.3	588.3	739.5	1315.1	3211.3	5335.1	8018.2	7954.4	5796.0
72.5°	318.8	337.0	373.4	406.2	490.0	870.7	2167.6	4424.4	6918.0	6808.7	4539.1
75°	176.7	182.1	247.7	287.8	326.0	566.5	1205.8	2759.5	4400.7	4324.2	2428.0
77.5°	145.7	149.4	174.9	218.6	218.6	316.9	455.4	1087.4	1673.9	1510.0	657.6
80°	102.0	105.6	133.0	143.9	156.6	178.5	147.5	238.6	258.7	229.5	98.4
82.5°	71.0	74.7	91.1	118.4	125.7	83.8	54.6	71.0	74.7	74.7	38.3
85°	12.8	18.2	67.4	98.4	74.7	25.5	31.0	25.5	23.7	25.5	9.1
87.5°	0.0	0.0	41.9	47.4	40.1	10.9	12.8	9.1	5.5	7.3	3.6
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°	785.1	785.1	785.1	785.1	785.1	785.1	785.1	785.1	785.1	785.1	785.1
2.5°	790.5	752.3	686.7	639.3	599.3	568.3	555.6	535.5	520.9	528.2	519.1
5°	812.4	745.0	639.3	571.9	524.6	484.5	451.7	426.2	406.2	402.5	398.9
7.5°	847.0	750.5	612.0	528.2	457.2	395.3	344.3	306.0	276.9	276.9	265.9
10°	894.3	765.0	595.6	484.5	378.9	295.1	244.1	207.6	193.1	191.3	187.6
12.5°	959.9	792.3	582.9	428.0	295.1	214.9	184.0	171.2	165.8	163.9	162.1
15°	1049.2	832.4	568.3	358.8	224.0	176.7	163.9	153.0	147.5	145.7	143.9
17.5°	1134.8	868.8	537.3	287.8	182.1	160.3	145.7	136.6	129.3	127.5	127.5
20°	1214.9	899.8	484.5	224.0	163.9	143.9	129.3	118.4	111.1	109.3	109.3
22.5°	1298.7	925.3	418.9	182.1	149.4	127.5	112.9	102.0	94.7	92.9	91.1
25°	1388.0	943.5	344.3	162.1	134.8	112.9	96.5	87.4	82.0	80.1	78.3
27.5°	1484.5	950.8	273.2	147.5	118.4	98.4	83.8	74.7	71.0	69.2	69.2
30°	1571.9	943.5	211.3	131.1	103.8	85.6	72.9	65.6	61.9	60.1	60.1
32.5°	1663.0	925.3	169.4	116.6	91.1	72.9	61.9	56.5	54.6	52.8	52.8
35°	1759.6	901.6	145.7	103.8	78.3	63.8	54.6	51.0	49.2	47.4	47.4
37.5°	1872.5	872.5	133.0	92.9	69.2	56.5	47.4	45.5	43.7	43.7	43.7
40°	2000.0	836.1	123.9	83.8	61.9	49.2	41.9	40.1	38.3	38.3	38.3
42.5°	2134.8	794.2	114.8	74.7	54.6	41.9	36.4	36.4	34.6	34.6	32.8
45°	2286.0	752.3	105.6	65.6	47.4	36.4	31.0	29.1	29.1	27.3	27.3
47.5°	2464.5	714.0	96.5	58.3	41.9	31.0	27.3	25.5	23.7	21.9	21.9
50°	2715.8	710.4	85.6	51.0	38.3	25.5	21.9	20.0	18.2	16.4	16.4
52.5°	2965.4	677.6	72.9	41.9	31.0	21.9	16.4	14.6	12.8	12.8	10.9
55°	3021.8	622.9	63.8	36.4	23.7	16.4	12.8	9.1	9.1	7.3	7.3
57.5°	3145.7	597.4	54.6	29.1	18.2	12.8	7.3	5.5	5.5	5.5	5.5
60°	3389.8	590.2	47.4	25.5	12.8	9.1	5.5	3.6	3.6	1.8	1.8
62.5°	3726.8	582.9	40.1	21.9	9.1	5.5	3.6	1.8	0.0	0.0	0.0
65°	3912.5	533.7	32.8	16.4	7.3	5.5	1.8	0.0	0.0	0.0	0.0
67.5°	3863.4	440.8	29.1	10.9	5.5	3.6	1.8	0.0	0.0	0.0	0.0
69°	3657.5	371.6	23.7	9.1	5.5	3.6	1.8	0.0	0.0	0.0	0.0
70°	3409.8	320.6	21.9	7.3	3.6	1.8	1.8	0.0	0.0	0.0	0.0
72.5°	2420.8	167.6	14.6	5.5	3.6	1.8	0.0	0.0	0.0	0.0	0.0
75°	1131.1	74.7	9.1	3.6	1.8	1.8	0.0	0.0	0.0	0.0	0.0
77.5°	249.5	34.6	5.5	3.6	1.8	0.0	0.0	0.0	0.0	0.0	0.0
80°	47.4	12.8	3.6	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	16.4	5.5	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	5.5	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.8	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)