

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: P234793

Luminaire Tested: **ARCH-M-AF48-50-D-U-T2R-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234793
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-AF48-50-D-U-T2R-8027-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 305mA 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: 4272 lumens
Efficiency: N/A
Efficacy: 89.0 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B0 - U0 - G1

Input Watts (W): 48
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

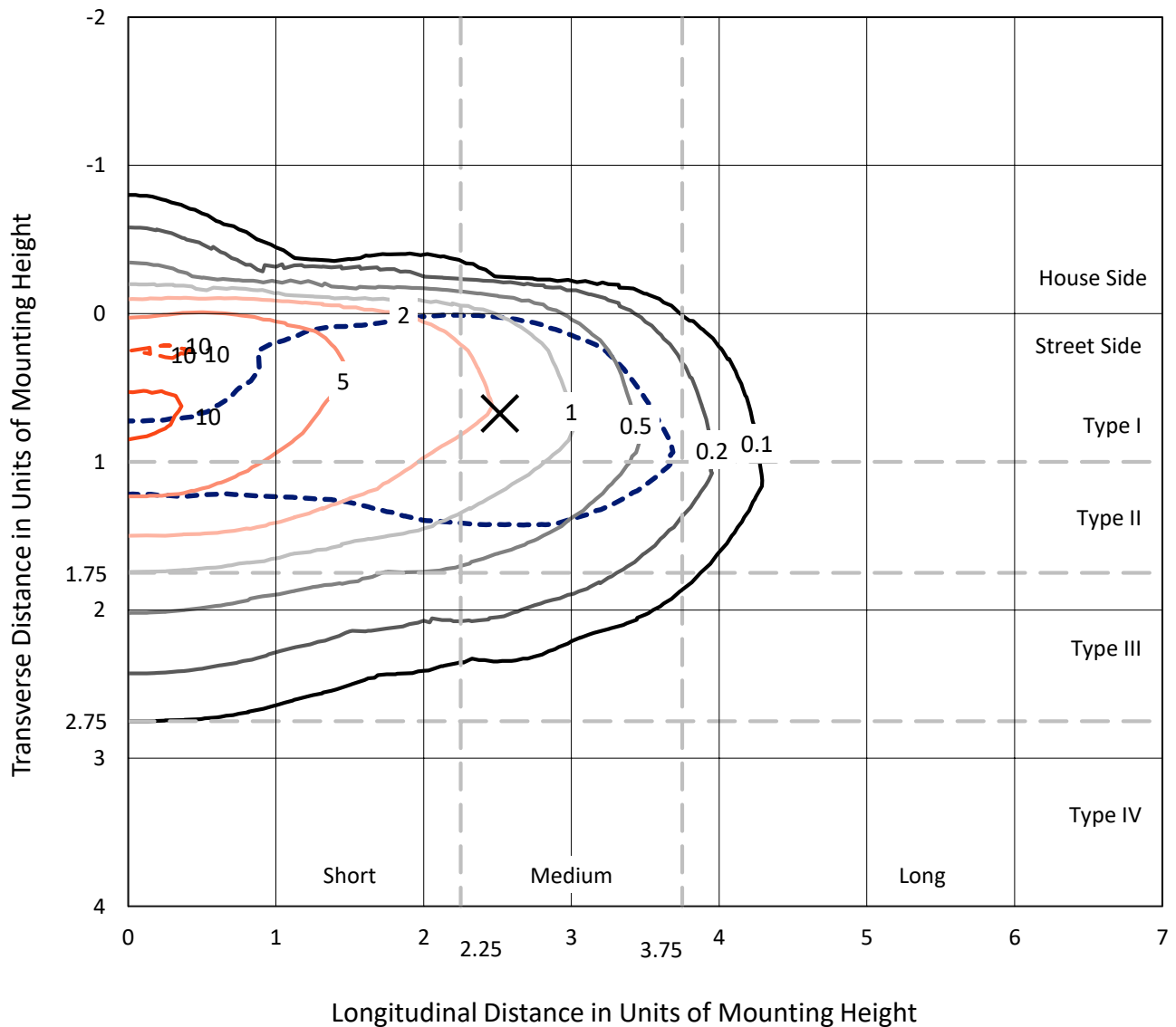


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

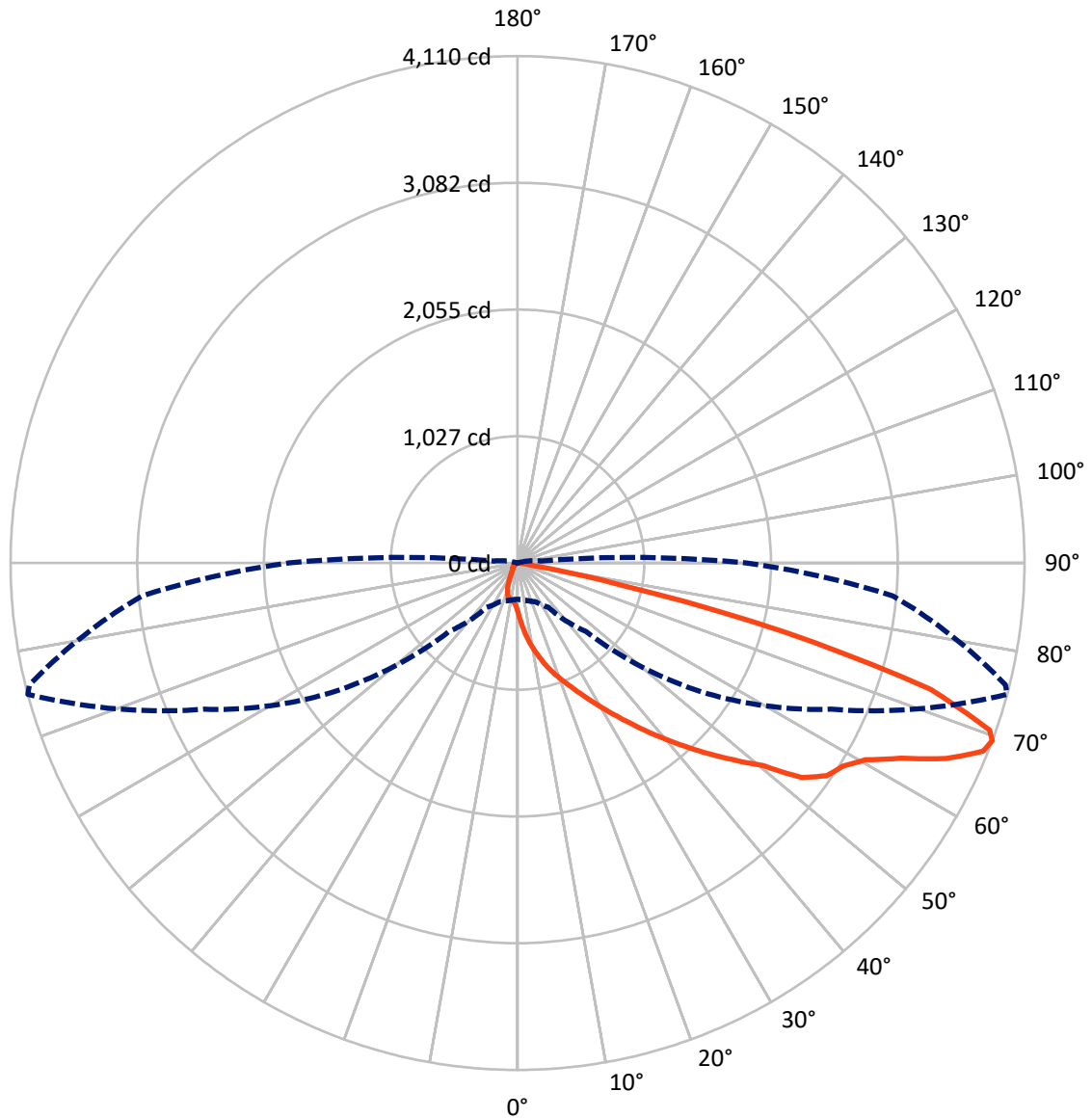


Based on 10 foot mounting height. Maximum calculated value = 10.9 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



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

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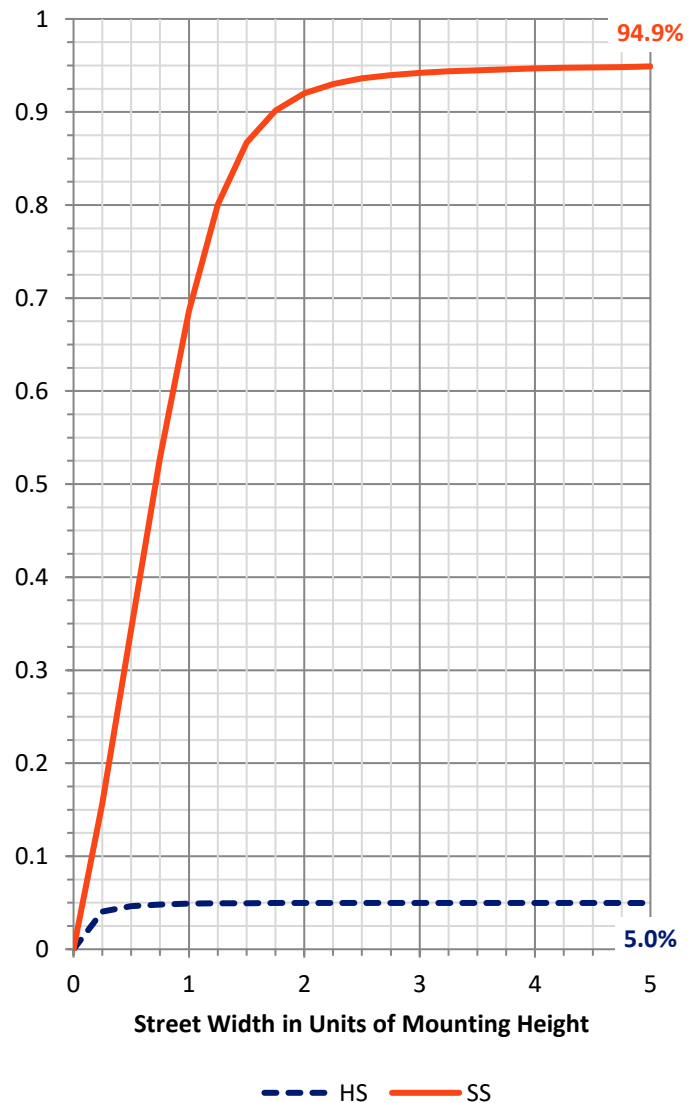
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	213.1	0.0	213.1
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	4058.9	0.0	4058.9
	% Fixture	95.0	0.0	95.0
Total	Lumens	4272.0	0.0	4272.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.4	1.1
10°-20°	165.7	3.9
20°-30°	316.3	7.4
30°-40°	567.5	13.3
40°-50°	869.4	20.4
50°-60°	1010.5	23.7
60°-70°	894.8	20.9
70°-80°	386.0	9.0
80°-90°	15.5	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°	4272.0	100.0
0°-180°	4272.0	100.0



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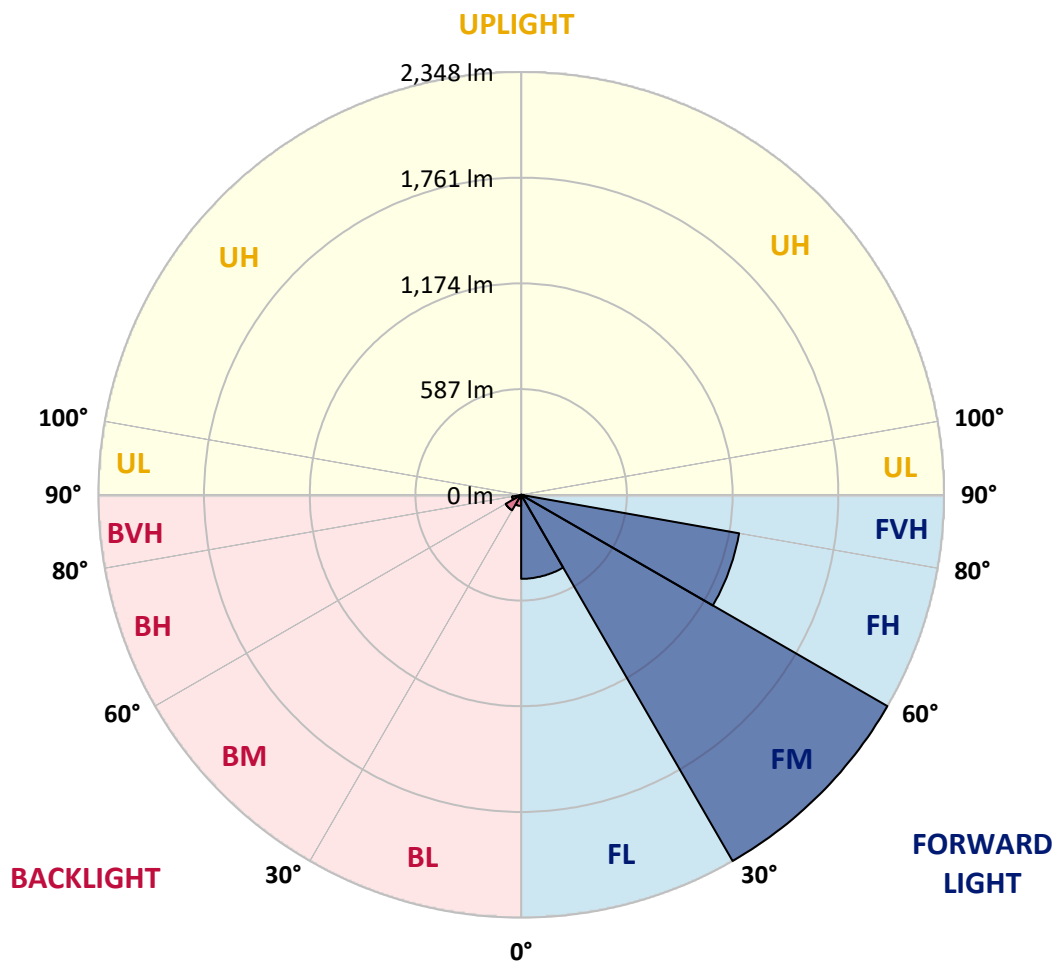
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	466.5	10.9			
FM	(30°-60°)	2348.0	55.0			
FH	(60°-80°)	1229.1	28.8			G1/1800
FVH	(80°-90°)	15.2	0.4			G1/100
BL	(0°-30°)	61.9	1.4	B0/110		
BM	(30°-60°)	99.4	2.3	B0/220		
BH	(60°-80°)	51.6	1.2	B0/110		G0/110
BVH	(80°-90°)	0.2	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	397.5	397.5	397.5	397.5	397.5	397.5	397.5	397.5	397.5	397.5	397.5
2.5°	654.8	648.4	641.9	634.5	617.9	589.3	553.4	514.6	466.7	458.4	419.6
5°	795.0	792.2	785.8	775.6	757.2	725.8	685.3	628.1	547.8	534.0	451.9
7.5°	893.7	891.9	886.3	874.3	857.7	826.4	783.9	722.2	629.0	613.3	492.5
10°	982.2	981.3	976.7	965.6	949.0	914.9	869.7	805.2	706.5	689.0	539.5
12.5°	1062.5	1063.4	1061.6	1056.0	1044.0	1011.8	960.1	890.0	781.2	761.8	595.8
15°	1109.5	1112.3	1119.7	1130.7	1134.4	1108.6	1055.1	977.6	857.7	841.1	660.4
17.5°	1093.8	1096.6	1119.7	1157.5	1193.4	1197.1	1149.2	1060.6	933.4	916.8	724.0
20°	1056.0	1059.7	1083.7	1135.3	1205.4	1254.3	1234.9	1151.0	1005.3	985.0	784.9
22.5°	1098.5	1098.5	1105.8	1137.2	1200.8	1277.4	1303.2	1241.4	1079.1	1054.2	845.7
25°	1244.2	1241.4	1225.7	1212.8	1233.1	1301.4	1354.8	1333.6	1165.8	1137.2	910.3
27.5°	1428.6	1441.5	1412.0	1365.0	1318.9	1348.4	1401.0	1424.9	1261.7	1232.2	976.7
30°	1635.2	1640.8	1605.7	1543.0	1461.8	1433.2	1455.4	1503.3	1365.9	1333.6	1045.9
32.5°	1821.5	1816.9	1787.4	1721.9	1621.4	1559.6	1525.5	1566.1	1479.4	1442.5	1116.9
35°	1986.6	1990.3	1954.3	1878.7	1780.0	1714.5	1633.4	1637.1	1606.6	1564.2	1199.0
37.5°	2135.1	2128.7	2094.5	2018.9	1929.4	1858.4	1772.6	1710.9	1745.9	1701.6	1291.2
40°	2255.9	2249.5	2213.5	2139.7	2055.8	1997.7	1930.4	1809.5	1892.5	1841.8	1389.9
42.5°	2351.8	2344.5	2314.0	2243.0	2161.9	2110.2	2077.9	1931.3	2049.3	1998.6	1500.6
45°	2398.9	2392.4	2374.0	2320.5	2249.5	2204.3	2220.0	2071.5	2217.2	2174.8	1622.3
47.5°	2343.5	2340.8	2362.0	2352.8	2312.2	2288.2	2342.6	2224.6	2393.3	2351.8	1762.5
50°	2175.7	2180.3	2242.1	2318.6	2338.0	2366.6	2443.2	2386.0	2582.4	2538.1	1923.9
52.5°	1761.6	1792.9	1979.2	2163.7	2306.7	2414.6	2561.2	2616.5	2890.5	2847.1	2175.7
55°	1315.2	1328.1	1531.0	1846.4	2180.3	2410.9	2648.8	2752.1	3042.6	2998.4	2242.1
57.5°	1043.1	1047.7	1148.3	1470.1	1920.2	2327.9	2694.9	2801.0	3109.0	3072.2	2340.8
60°	819.0	824.5	897.4	1118.7	1554.1	2103.7	2628.5	2843.4	3239.1	3209.6	2513.2
62.5°	637.3	642.8	687.1	817.2	1165.8	1758.8	2494.8	2911.7	3486.3	3472.4	2795.5
65°	493.4	495.3	525.7	586.6	823.6	1385.3	2331.6	2975.3	3820.1	3808.1	3024.2
67.5°	364.3	367.1	388.3	426.1	556.1	995.2	2064.1	2926.4	4071.9	4036.9	3107.2
69°	294.2	297.0	315.4	345.9	439.0	783.9	1819.7	2805.6	4109.7	4076.5	3054.6
70°	251.8	253.6	272.1	297.9	374.5	665.9	1626.0	2701.4	4059.9	4027.7	2934.7
72.5°	161.4	170.6	189.1	205.7	248.1	440.9	1097.5	2240.2	3502.9	3447.5	2298.4
75°	89.5	92.2	125.4	145.7	165.1	286.8	610.6	1397.3	2228.3	2189.5	1229.4
77.5°	73.8	75.6	88.5	110.7	110.7	160.5	230.6	550.6	847.6	764.6	332.9
80°	51.6	53.5	67.3	72.9	79.3	90.4	74.7	120.8	131.0	116.2	49.8
82.5°	36.0	37.8	46.1	59.9	63.6	42.4	27.7	36.0	37.8	37.8	19.4
85°	6.5	9.2	34.1	49.8	37.8	12.9	15.7	12.9	12.0	12.9	4.6
87.5°	0.0	0.0	21.2	24.0	20.3	5.5	6.5	4.6	2.8	3.7	1.8
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°	397.5	397.5	397.5	397.5	397.5	397.5	397.5	397.5	397.5	397.5	397.5
2.5°	400.3	380.9	347.7	323.7	303.4	287.8	281.3	271.2	263.8	267.5	262.9
5°	411.3	377.2	323.7	289.6	265.6	245.3	228.7	215.8	205.7	203.8	202.0
7.5°	428.9	380.0	309.9	267.5	231.5	200.1	174.3	154.9	140.2	140.2	134.7
10°	452.8	387.4	301.6	245.3	191.8	149.4	123.6	105.1	97.8	96.8	95.0
12.5°	486.0	401.2	295.1	216.7	149.4	108.8	93.2	86.7	83.9	83.0	82.1
15°	531.2	421.5	287.8	181.7	113.4	89.5	83.0	77.5	74.7	73.8	72.9
17.5°	574.6	439.9	272.1	145.7	92.2	81.2	73.8	69.2	65.5	64.6	64.6
20°	615.2	455.6	245.3	113.4	83.0	72.9	65.5	59.9	56.3	55.3	55.3
22.5°	657.6	468.5	212.1	92.2	75.6	64.6	57.2	51.6	48.0	47.0	46.1
25°	702.8	477.7	174.3	82.1	68.2	57.2	48.9	44.3	41.5	40.6	39.7
27.5°	751.7	481.4	138.3	74.7	59.9	49.8	42.4	37.8	36.0	35.0	35.0
30°	795.9	477.7	107.0	66.4	52.6	43.3	36.9	33.2	31.4	30.4	30.4
32.5°	842.1	468.5	85.8	59.0	46.1	36.9	31.4	28.6	27.7	26.7	26.7
35°	890.9	456.5	73.8	52.6	39.7	32.3	27.7	25.8	24.9	24.0	24.0
37.5°	948.1	441.8	67.3	47.0	35.0	28.6	24.0	23.1	22.1	22.1	22.1
40°	1012.7	423.3	62.7	42.4	31.4	24.9	21.2	20.3	19.4	19.4	19.4
42.5°	1080.9	402.1	58.1	37.8	27.7	21.2	18.4	18.4	17.5	17.5	16.6
45°	1157.5	380.9	53.5	33.2	24.0	18.4	15.7	14.8	14.8	13.8	13.8
47.5°	1247.9	361.5	48.9	29.5	21.2	15.7	13.8	12.9	12.0	11.1	11.1
50°	1375.1	359.7	43.3	25.8	19.4	12.9	11.1	10.1	9.2	8.3	8.3
52.5°	1501.5	343.1	36.9	21.2	15.7	11.1	8.3	7.4	6.5	6.5	5.5
55°	1530.1	315.4	32.3	18.4	12.0	8.3	6.5	4.6	4.6	3.7	3.7
57.5°	1592.8	302.5	27.7	14.8	9.2	6.5	3.7	2.8	2.8	2.8	2.8
60°	1716.4	298.8	24.0	12.9	6.5	4.6	2.8	1.8	1.8	0.9	0.9
62.5°	1887.0	295.1	20.3	11.1	4.6	2.8	1.8	0.9	0.0	0.0	0.0
65°	1981.1	270.2	16.6	8.3	3.7	2.8	0.9	0.0	0.0	0.0	0.0
67.5°	1956.2	223.2	14.8	5.5	2.8	1.8	0.9	0.0	0.0	0.0	0.0
69°	1852.0	188.1	12.0	4.6	2.8	1.8	0.9	0.0	0.0	0.0	0.0
70°	1726.5	162.3	11.1	3.7	1.8	0.9	0.9	0.0	0.0	0.0	0.0
72.5°	1225.7	84.9	7.4	2.8	1.8	0.9	0.0	0.0	0.0	0.0	0.0
75°	572.7	37.8	4.6	1.8	0.9	0.9	0.0	0.0	0.0	0.0	0.0
77.5°	126.4	17.5	2.8	1.8	0.9	0.0	0.0	0.0	0.0	0.0	0.0
80°	24.0	6.5	1.8	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	8.3	2.8	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	2.8	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.9	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)