

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: P234854

Luminaire Tested: **ARCH-M-AF48-140-D-U-T4W-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234854
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29625)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-140-D-U-T4W-8027-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 905mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9804 lumens
Efficiency: N/A
Efficacy: 69.5 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 141
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

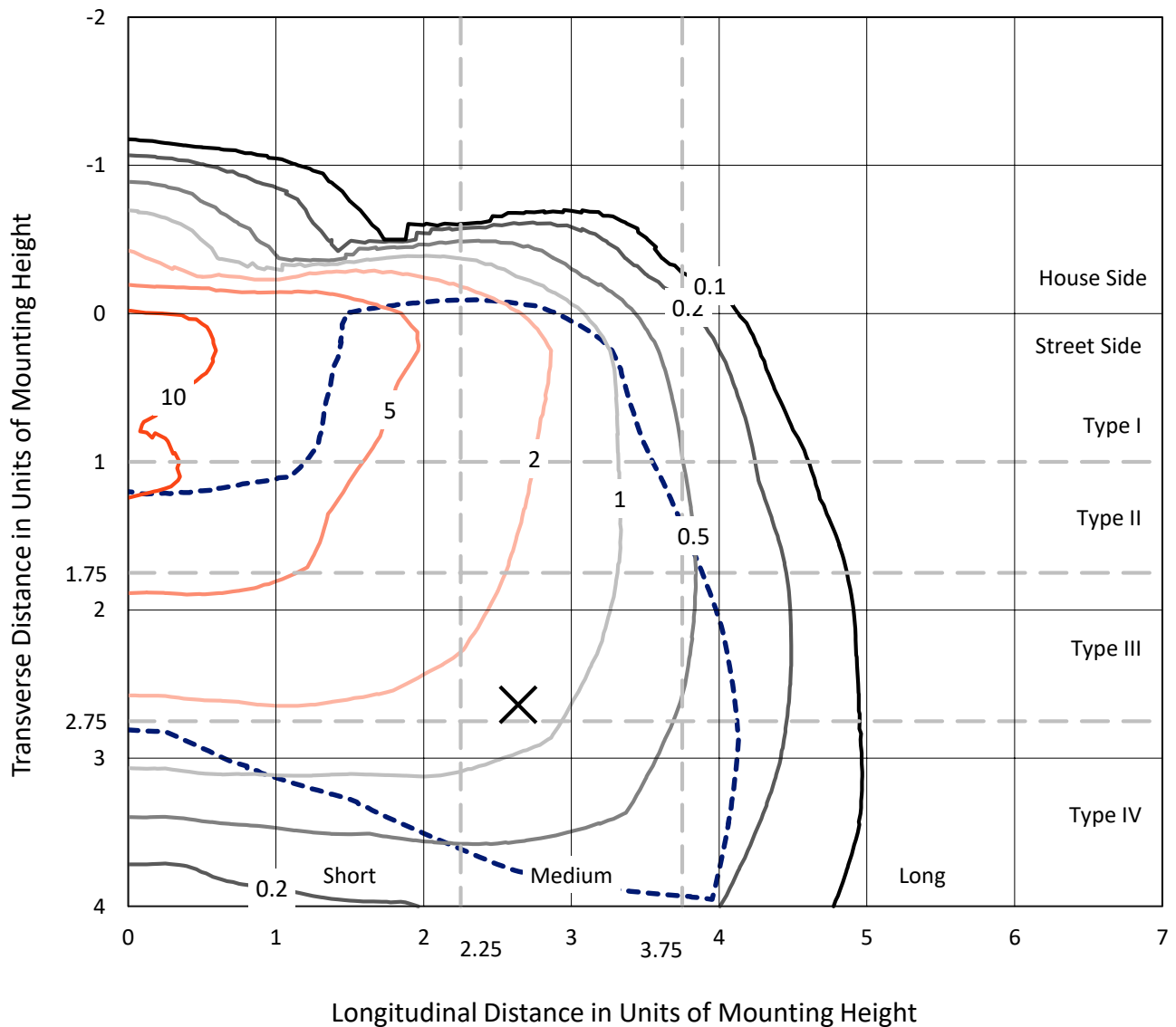


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

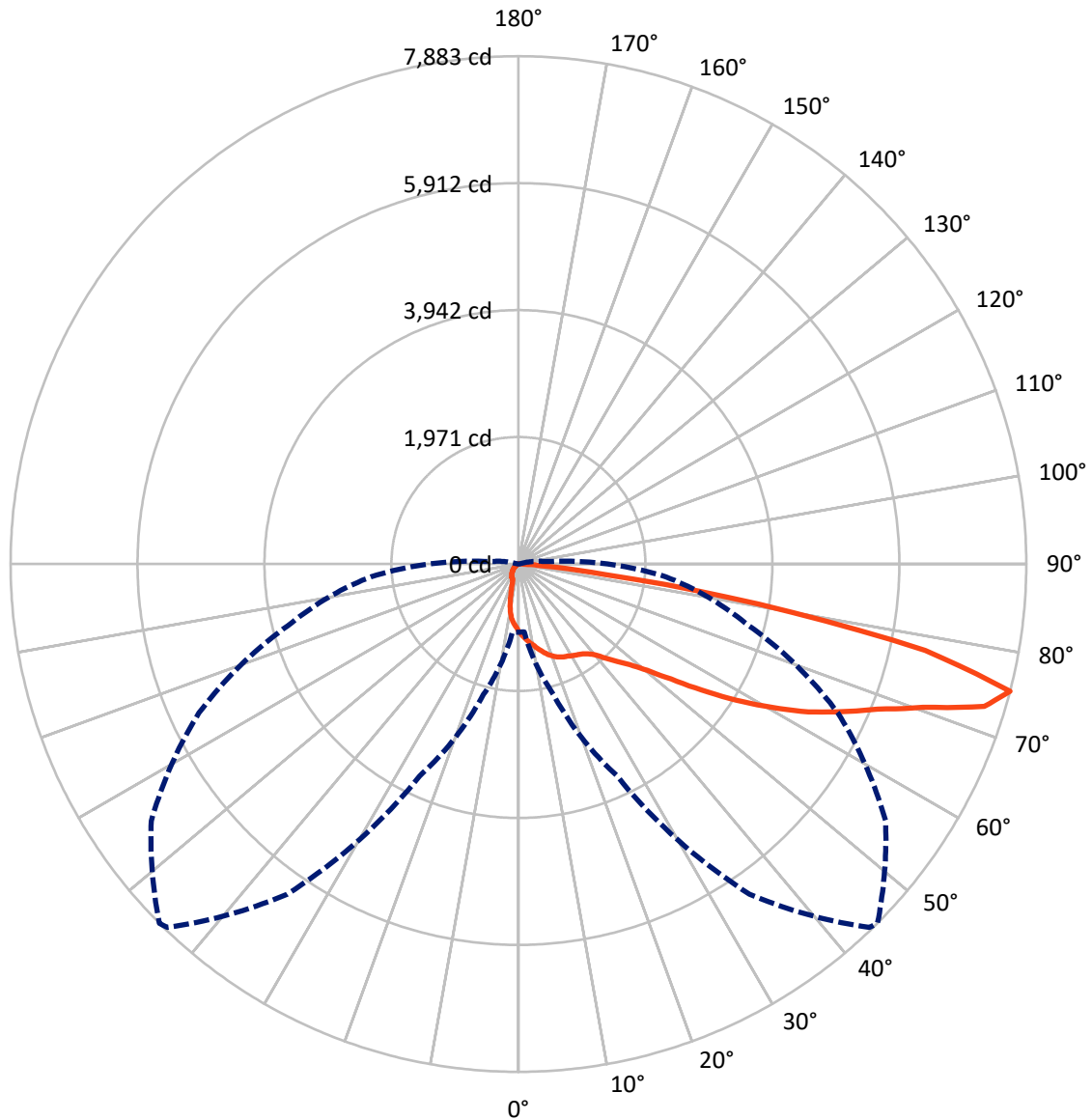


Based on 10 foot mounting height. Maximum calculated value = 14 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical



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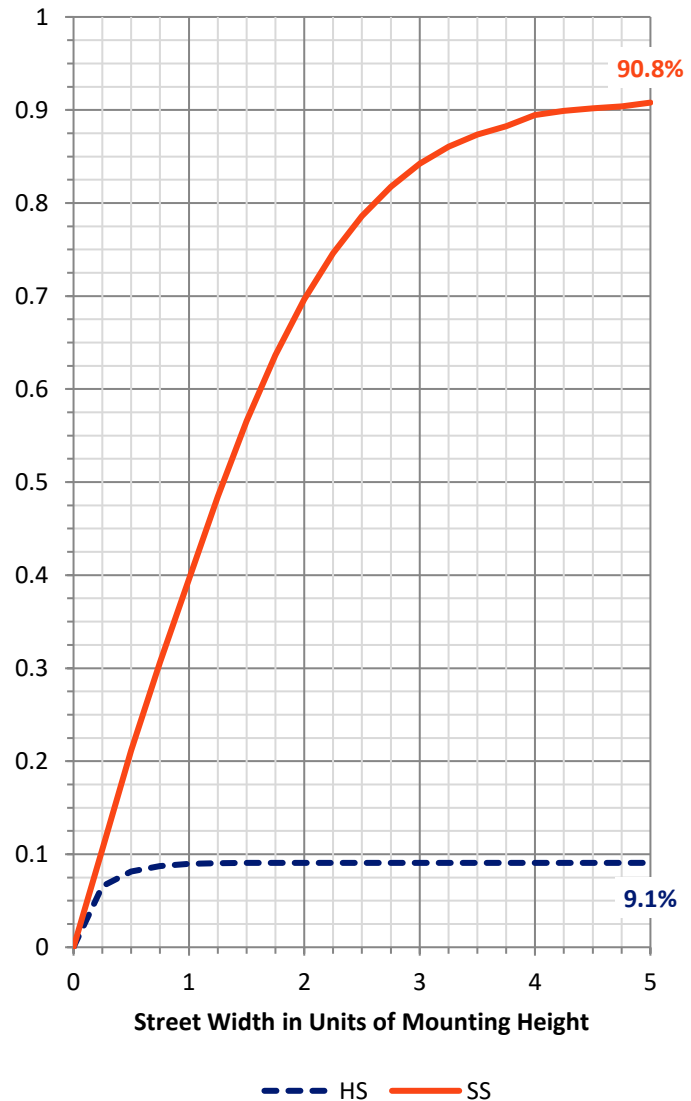
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	896.8	0.0	896.8
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	8907.2	0.0	8907.2
	% Fixture	90.9	0.0	90.9
Total	Lumens	9804.0	0.0	9804.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.0	1.0
10°-20°	280.4	2.9
20°-30°	464.3	4.7
30°-40°	672.0	6.9
40°-50°	1100.4	11.2
50°-60°	1960.6	20.0
60°-70°	2882.3	29.4
70°-80°	2174.5	22.2
80°-90°	170.6	1.7
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°	9804.0	100.0
0°-180°	9804.0	100.0



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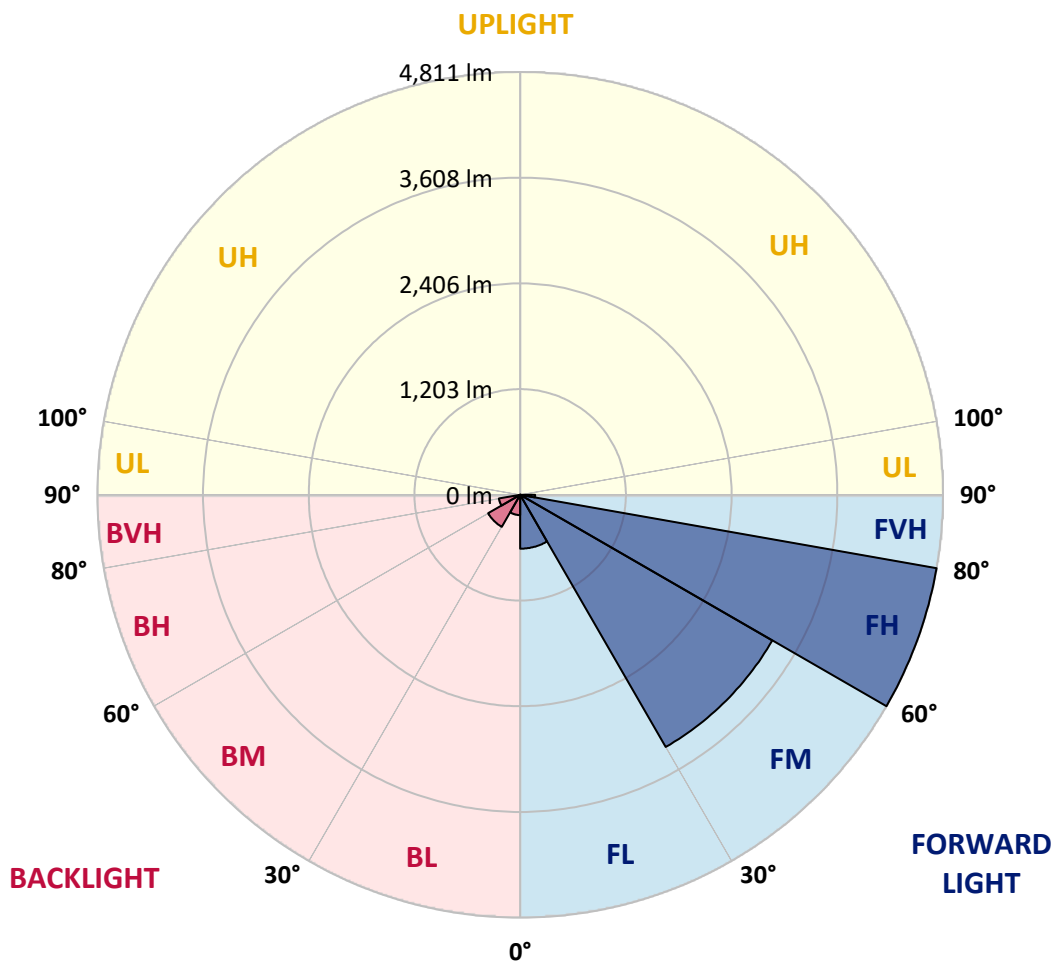
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	613.2	6.3			
FM	(30°-60°)	3312.7	33.8			
FH	(60°-80°)	4811.2	49.1			G2/5000
FVH	(80°-90°)	170.1	1.7			G2/225
BL	(0°-30°)	230.4	2.4	B1/500		
BM	(30°-60°)	420.2	4.3	B1/1000		
BH	(60°-80°)	245.6	2.5	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 IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	1048.6	1048.6	1048.6	1048.6	1048.6	1048.6	1048.6	1048.6	1048.6	1048.6	1048.6
2.5°	1139.1	1139.1	1136.7	1134.4	1122.8	1111.2	1108.9	1101.9	1081.1	1067.2	1053.2
5°	1234.2	1236.5	1231.9	1220.3	1194.7	1169.2	1166.9	1148.3	1108.9	1081.1	1050.9
7.5°	1324.7	1329.3	1317.7	1296.8	1266.7	1229.5	1227.2	1192.4	1141.4	1101.9	1057.9
10°	1401.2	1401.2	1385.0	1359.5	1327.0	1287.5	1282.9	1243.5	1185.5	1136.7	1078.7
12.5°	1484.7	1482.4	1459.2	1424.4	1387.3	1350.2	1347.9	1299.1	1243.5	1180.8	1108.9
15°	1561.3	1556.6	1526.5	1494.0	1454.6	1415.1	1412.8	1364.1	1306.1	1231.9	1153.0
17.5°	1603.0	1600.7	1572.9	1540.4	1507.9	1477.8	1475.5	1424.4	1361.8	1285.2	1197.1
20°	1610.0	1612.3	1589.1	1561.3	1542.7	1526.5	1526.5	1480.1	1412.8	1331.6	1243.5
22.5°	1612.3	1619.3	1603.0	1565.9	1561.3	1563.6	1568.2	1531.1	1461.5	1385.0	1292.2
25°	1628.6	1637.8	1626.2	1582.2	1577.5	1593.8	1598.4	1582.2	1519.5	1443.0	1347.9
27.5°	1661.0	1670.3	1661.0	1605.4	1598.4	1614.6	1619.3	1628.6	1582.2	1498.6	1405.9
30°	1726.0	1728.3	1707.4	1637.8	1623.9	1644.8	1651.8	1677.3	1640.2	1552.0	1461.5
32.5°	1839.7	1816.5	1753.8	1661.0	1649.4	1672.6	1679.6	1707.4	1693.5	1603.0	1519.5
35°	2071.7	1951.0	1807.2	1693.5	1681.9	1705.1	1714.4	1753.8	1760.8	1675.0	1591.4
37.5°	2069.3	1960.3	1932.5	1756.2	1739.9	1756.2	1767.8	1816.5	1844.3	1770.1	1695.8
40°	2215.5	2169.1	2169.1	1874.5	1821.1	1844.3	1855.9	1904.6	1953.3	1895.4	1818.8
42.5°	2674.8	2644.7	2612.2	2101.8	1934.8	1999.7	2006.7	2036.9	2094.9	2076.3	1985.8
45°	3187.5	3159.7	3034.4	2486.9	2129.7	2141.3	2157.5	2206.2	2289.7	2324.5	2217.8
47.5°	3588.9	3561.0	3454.3	2950.9	2433.6	2331.5	2331.5	2426.6	2556.5	2644.7	2542.6
50°	3911.3	3878.9	3813.9	3445.0	2932.3	2605.2	2591.3	2702.7	2895.2	3032.1	2962.5
52.5°	4224.5	4129.4	4090.0	3955.4	3496.1	3001.9	2964.8	3043.7	3310.5	3479.8	3421.8
55°	4433.3	4419.4	4377.6	4424.0	4087.6	3484.5	3452.0	3468.2	3802.3	3916.0	3844.1
57.5°	4628.2	4625.9	4718.7	4934.4	4732.6	4036.6	3985.6	3960.1	4277.9	4250.0	4312.7
60°	4869.5	4827.7	5043.4	5352.0	5324.2	4574.8	4516.8	4465.8	4642.1	4563.2	4874.1
62.5°	4881.1	4869.5	5307.9	5751.0	5911.1	5122.3	5055.0	4871.8	4959.9	4869.5	5410.0
65°	4438.0	4495.9	5419.3	5962.1	6402.9	5602.5	5521.3	5236.0	5243.0	5182.6	6041.0
67.5°	4338.2	4368.4	5113.0	6189.5	6757.8	6087.4	6010.8	5655.9	5572.4	5577.0	6414.5
70°	4090.0	4136.4	4732.6	6173.2	7038.6	6734.6	6658.1	6273.0	6071.2	5846.1	6126.8
72.5°	3124.9	3203.8	3987.9	5412.3	6962.0	7581.4	7560.5	7054.8	6270.7	5368.2	4635.1
75°	1057.9	1055.6	2094.9	3635.3	6254.4	7841.2	7883.0	6957.4	5470.3	3702.5	2301.3
77.5°	227.3	229.7	431.5	1473.1	4154.9	6296.2	6456.3	5247.6	3528.6	1649.4	526.6
80°	111.4	113.7	178.6	389.7	1661.0	3530.9	3781.4	2698.0	1303.8	329.4	88.2
82.5°	55.7	58.0	92.8	206.5	614.8	1255.1	1340.9	992.9	373.5	185.6	44.1
85°	20.9	20.9	46.4	123.0	280.7	294.6	361.9	287.7	225.0	150.8	11.6
87.5°	4.6	4.6	25.5	60.3	125.3	92.8	92.8	88.2	136.9	102.1	4.6
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°	1048.6	1048.6	1048.6	1048.6	1048.6	1048.6	1048.6	1048.6	1048.6	1048.6	1048.6
2.5°	1046.3	1037.0	1020.8	1004.5	992.9	979.0	972.0	965.1	962.8	960.4	965.1
5°	1034.7	1020.8	990.6	965.1	941.9	923.3	909.4	895.5	888.5	883.9	886.2
7.5°	1034.7	1013.8	969.7	930.3	893.2	853.7	814.3	784.1	760.9	747.0	749.3
10°	1046.3	1018.4	960.4	907.1	837.5	754.0	668.1	603.2	559.1	533.6	533.6
12.5°	1071.8	1034.7	962.8	879.2	760.9	614.8	484.9	406.0	373.5	354.9	357.3
15°	1106.6	1062.5	974.4	842.1	654.2	457.0	338.7	287.7	287.7	292.3	294.6
17.5°	1146.0	1097.3	983.6	786.4	517.3	327.1	266.8	262.1	269.1	280.7	280.7
20°	1185.5	1132.1	988.3	698.3	387.4	259.8	252.9	252.9	257.5	269.1	271.4
22.5°	1234.2	1176.2	983.6	589.3	290.0	245.9	243.6	243.6	243.6	257.5	257.5
25°	1285.2	1227.2	965.1	473.3	245.9	236.6	234.3	232.0	232.0	243.6	245.9
27.5°	1343.2	1280.6	921.0	361.9	232.0	227.3	225.0	220.4	220.4	229.7	229.7
30°	1401.2	1340.9	853.7	273.7	220.4	218.1	213.4	208.8	204.2	213.4	213.4
32.5°	1463.9	1403.5	765.6	218.1	204.2	204.2	201.8	194.9	190.2	194.9	197.2
35°	1547.4	1475.5	665.8	190.2	183.3	183.3	183.3	181.0	171.7	176.3	176.3
37.5°	1658.7	1575.2	549.8	176.3	167.0	162.4	162.4	162.4	155.4	157.8	157.8
40°	1800.2	1691.2	438.5	164.7	155.4	143.8	139.2	141.5	136.9	136.9	134.6
42.5°	1992.8	1816.5	329.4	155.4	146.2	129.9	120.6	118.3	113.7	111.4	111.4
45°	2268.9	1969.6	236.6	146.2	139.2	113.7	104.4	97.4	85.8	78.9	78.9
47.5°	2626.1	2143.6	176.3	136.9	132.2	99.8	88.2	74.2	58.0	53.4	53.4
50°	3062.3	2338.5	148.5	123.0	120.6	88.2	69.6	48.7	32.5	27.8	30.2
52.5°	3486.8	2521.7	132.2	109.0	106.7	76.6	51.0	25.5	13.9	13.9	13.9
55°	3844.1	2651.6	120.6	97.4	92.8	60.3	27.8	11.6	7.0	7.0	7.0
57.5°	4166.5	2725.9	109.0	85.8	74.2	41.8	11.6	4.6	4.6	2.3	2.3
60°	4461.2	2770.0	95.1	74.2	58.0	23.2	4.6	2.3	2.3	0.0	0.0
62.5°	4751.1	2802.4	81.2	60.3	44.1	9.3	2.3	2.3	0.0	0.0	0.0
65°	4971.5	2790.8	65.0	48.7	27.8	4.6	2.3	0.0	0.0	0.0	0.0
67.5°	4964.6	2633.1	48.7	37.1	13.9	2.3	0.0	0.0	0.0	0.0	0.0
70°	4440.3	2217.8	32.5	23.2	4.6	2.3	0.0	0.0	0.0	0.0	0.0
72.5°	3150.4	1422.1	20.9	13.9	2.3	0.0	0.0	0.0	0.0	0.0	0.0
75°	1387.3	431.5	11.6	7.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	271.4	99.8	7.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	65.0	11.6	2.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	27.8	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	7.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.6	2.3	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)