

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: P265813

Luminaire Tested: **ARCH-M-AF48-100-D-U-T4W-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265813
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-AF48-100-D-U-T4W-7027-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 2700K, 660mA 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: 8591.9 lumens
Efficiency: N/A
Efficacy: 85.1 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): 101
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

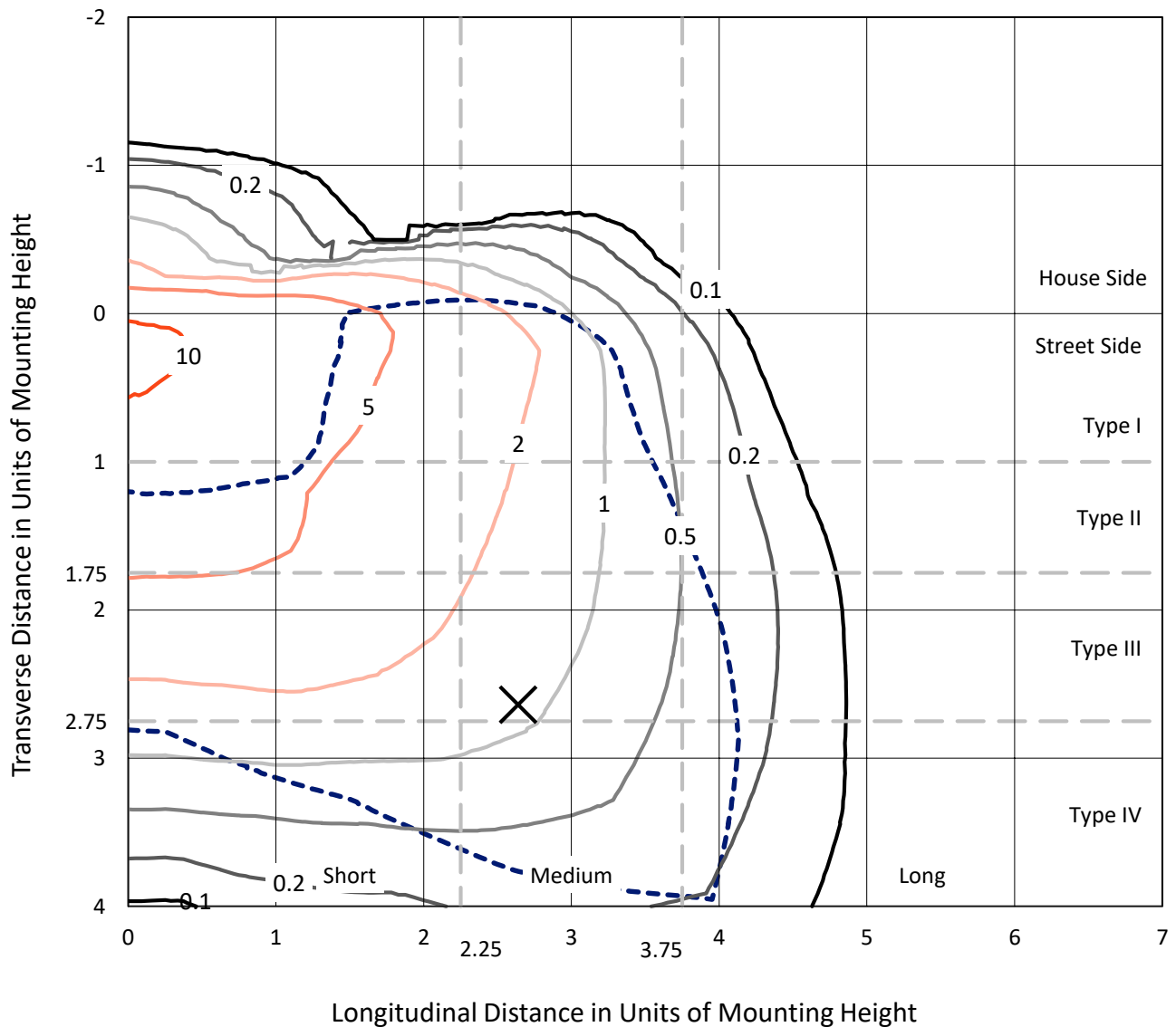


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

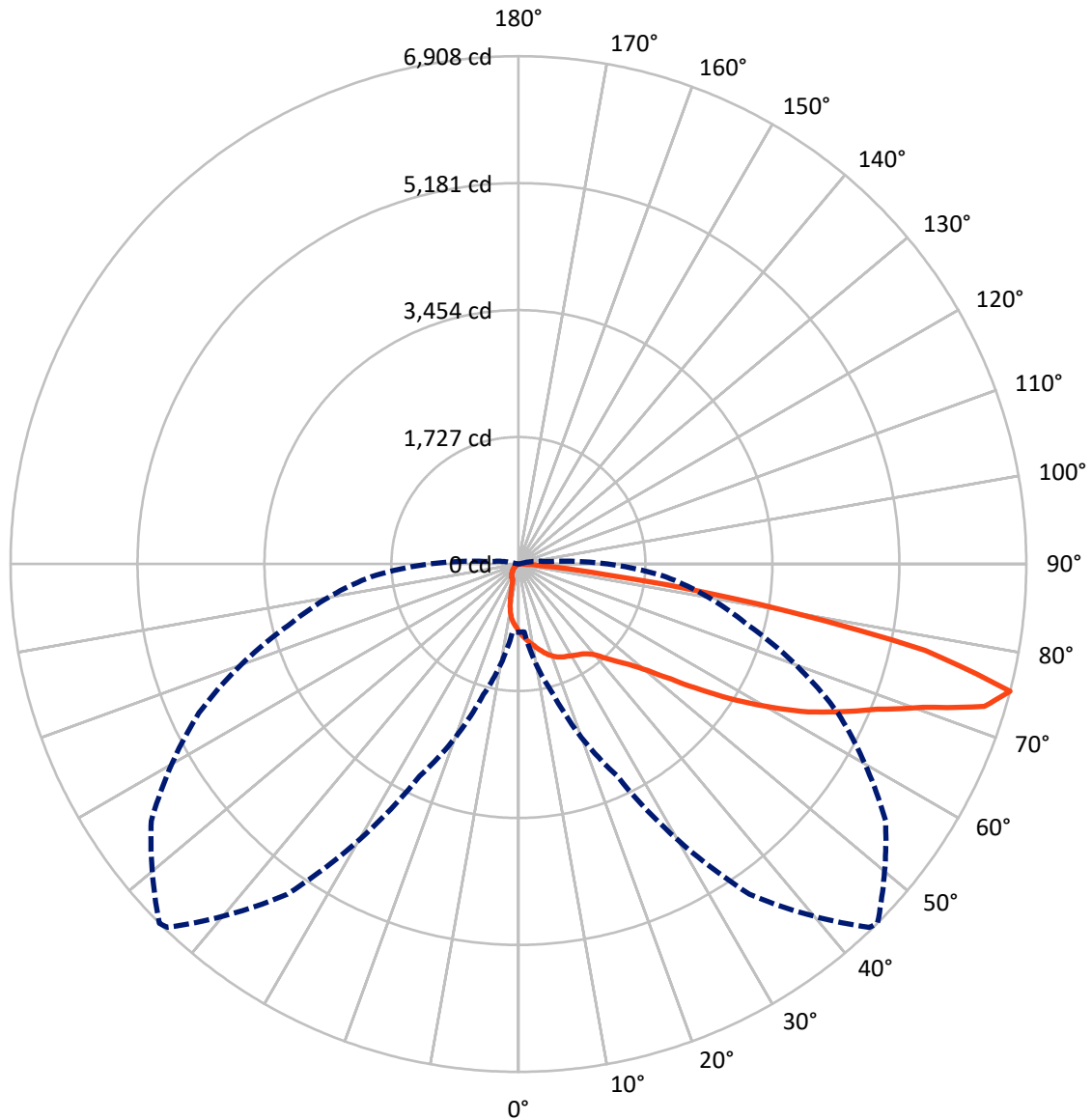


Based on 10 foot mounting height. Maximum calculated value = 12.3 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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

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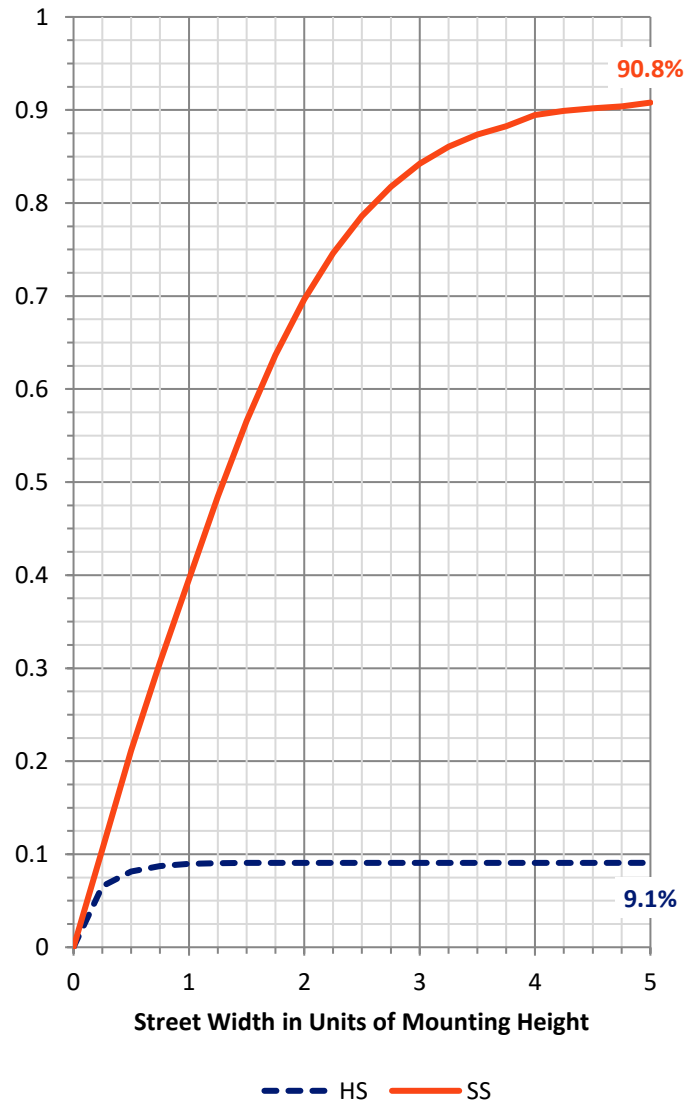
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	785.9	0.0	785.9
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	7806.0	0.0	7806.0
	% Fixture	90.9	0.0	90.9
Total	Lumens	8591.9	0.0	8591.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.7	1.0
10°-20°	245.7	2.9
20°-30°	406.9	4.7
30°-40°	588.9	6.9
40°-50°	964.3	11.2
50°-60°	1718.2	20.0
60°-70°	2526.0	29.4
70°-80°	1905.6	22.2
80°-90°	149.5	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°	8591.9	100.0
0°-180°	8591.9	100.0



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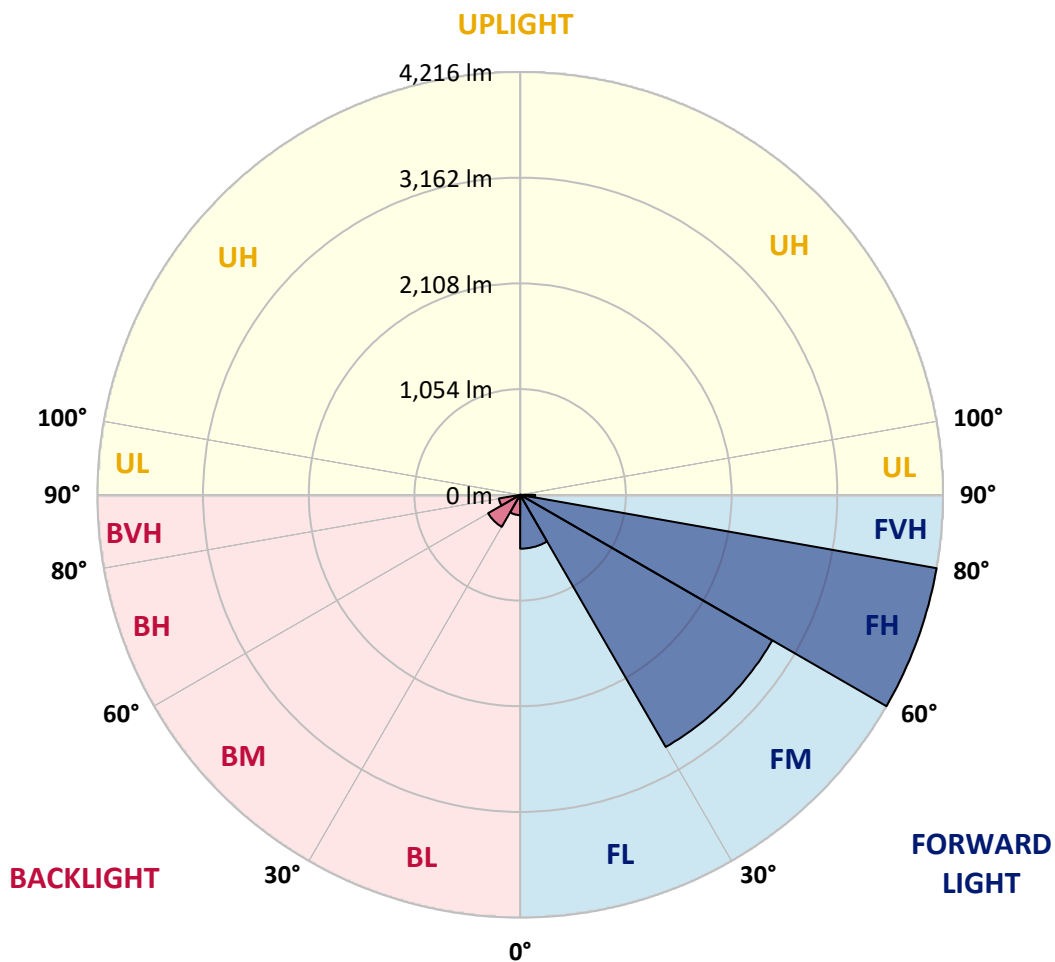
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	537.4	6.3			
FM	(30°-60°)	2903.2	33.8			
FH	(60°-80°)	4216.4	49.1			G2/5000
FVH	(80°-90°)	149.1	1.7			G2/225
BL	(0°-30°)	201.9	2.4	B1/500		
BM	(30°-60°)	368.3	4.3	B1/1000		
BH	(60°-80°)	215.3	2.5	B1/500		G1/500
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 IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	919.0	919.0	919.0	919.0	919.0	919.0	919.0	919.0	919.0	919.0	919.0
2.5°	998.2	998.2	996.2	994.2	984.1	973.9	971.7	965.7	947.4	935.2	923.0
5°	1081.6	1083.6	1079.6	1069.4	1047.1	1024.6	1022.6	1006.5	971.7	947.4	921.0
7.5°	1160.9	1164.9	1154.9	1136.4	1110.0	1077.5	1075.5	1045.0	1000.3	965.7	927.1
10°	1228.0	1228.0	1213.7	1191.4	1162.9	1128.4	1124.3	1089.7	1038.9	996.2	945.3
12.5°	1301.1	1299.0	1278.7	1248.4	1215.8	1183.2	1181.2	1138.5	1089.7	1034.8	971.7
15°	1368.3	1364.2	1337.8	1309.3	1274.8	1240.2	1238.1	1195.5	1144.6	1079.6	1010.5
17.5°	1404.9	1402.9	1378.4	1350.0	1321.4	1295.0	1293.0	1248.4	1193.4	1126.4	1049.1
20°	1411.0	1412.9	1392.6	1368.3	1351.9	1337.8	1337.8	1297.2	1238.1	1167.0	1089.7
22.5°	1412.9	1419.1	1404.9	1372.3	1368.3	1370.3	1374.3	1341.8	1280.9	1213.7	1132.5
25°	1427.1	1435.3	1425.3	1386.5	1382.5	1396.8	1400.7	1386.5	1331.6	1264.5	1181.2
27.5°	1455.7	1463.8	1455.7	1406.8	1400.7	1415.0	1419.1	1427.1	1386.5	1313.3	1232.0
30°	1512.6	1514.6	1496.3	1435.3	1423.2	1441.4	1447.6	1469.8	1437.4	1360.2	1280.9
32.5°	1612.2	1591.8	1537.0	1455.7	1445.6	1465.9	1472.0	1496.3	1484.1	1404.9	1331.6
35°	1815.6	1709.8	1583.7	1484.1	1473.9	1494.3	1502.4	1537.0	1543.1	1467.9	1394.7
37.5°	1813.5	1718.0	1693.6	1539.1	1524.9	1539.1	1549.1	1591.8	1616.3	1551.3	1486.2
40°	1941.5	1901.0	1901.0	1642.7	1596.0	1616.3	1626.4	1669.1	1711.8	1661.1	1594.0
42.5°	2344.1	2317.6	2289.2	1842.0	1695.6	1752.6	1758.6	1785.0	1835.9	1819.5	1740.2
45°	2793.4	2769.0	2659.3	2179.5	1866.4	1876.5	1890.8	1933.4	2006.6	2037.1	1943.7
47.5°	3145.1	3120.7	3027.3	2586.1	2132.7	2043.3	2043.3	2126.6	2240.5	2317.6	2228.2
50°	3427.8	3399.2	3342.4	3019.2	2569.8	2283.1	2270.9	2368.6	2537.3	2657.2	2596.2
52.5°	3702.3	3618.9	3584.2	3466.4	3063.8	2630.7	2598.3	2667.3	2901.2	3049.6	2998.8
55°	3885.2	3873.0	3836.4	3877.1	3582.4	3053.7	3025.2	3039.4	3332.3	3431.9	3368.9
57.5°	4055.9	4054.0	4135.3	4324.4	4147.5	3537.5	3492.8	3470.4	3748.9	3724.6	3779.4
60°	4267.4	4230.8	4419.9	4690.3	4665.8	4009.2	3958.4	3913.6	4068.2	3999.1	4271.5
62.5°	4277.5	4267.4	4651.7	5040.0	5180.3	4489.0	4430.1	4269.5	4346.7	4267.4	4741.2
65°	3889.3	3940.1	4749.2	5225.0	5611.4	4909.9	4838.7	4588.6	4594.7	4541.9	5294.2
67.5°	3801.8	3828.2	4480.8	5424.2	5922.3	5334.8	5267.8	4956.7	4883.5	4887.5	5621.5
70°	3584.2	3625.0	4147.5	5410.0	6168.3	5902.0	5834.9	5497.4	5320.5	5123.4	5369.3
72.5°	2738.6	2807.7	3494.9	4743.2	6101.3	6644.0	6625.8	6182.6	5495.4	4704.6	4062.0
75°	927.1	925.1	1835.9	3185.7	5481.2	6871.8	6908.3	6097.2	4794.0	3244.8	2016.9
77.5°	199.2	201.3	378.1	1291.0	3641.2	5517.7	5658.1	4598.9	3092.2	1445.6	461.5
80°	97.6	99.6	156.6	341.5	1455.7	3094.3	3313.8	2364.5	1142.6	288.6	77.3
82.5°	48.8	50.8	81.3	181.0	538.8	1099.9	1175.2	870.2	327.3	162.7	38.6
85°	18.2	18.2	40.7	107.7	246.0	258.3	317.1	252.2	197.2	132.1	10.2
87.5°	4.0	4.0	22.4	52.9	109.9	81.3	81.3	77.3	120.0	89.4	4.0
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°	919.0	919.0	919.0	919.0	919.0	919.0	919.0	919.0	919.0	919.0	919.0
2.5°	916.9	908.7	894.5	880.2	870.2	857.9	851.9	845.8	843.7	841.7	845.8
5°	906.7	894.5	868.1	845.8	825.5	809.2	796.9	784.8	778.7	774.6	776.7
7.5°	906.7	888.5	849.8	815.2	782.8	748.2	713.7	687.2	666.8	654.7	656.8
10°	916.9	892.6	841.7	794.9	733.9	660.8	585.5	528.7	489.9	467.6	467.6
12.5°	939.3	906.7	843.7	770.6	666.8	538.8	424.9	355.8	327.3	311.1	313.1
15°	969.8	931.2	853.8	738.0	573.3	400.6	296.8	252.2	252.2	256.1	258.3
17.5°	1004.3	961.6	862.1	689.2	453.4	286.6	233.7	229.7	235.9	246.0	246.0
20°	1038.9	992.2	866.1	611.9	339.5	227.7	221.6	221.6	225.7	235.9	238.0
22.5°	1081.6	1030.7	862.1	516.3	254.1	215.6	213.4	213.4	213.4	225.7	225.7
25°	1126.4	1075.5	845.8	414.7	215.6	207.4	205.4	203.2	203.2	213.4	215.6
27.5°	1177.1	1122.3	807.1	317.1	203.2	199.2	197.2	193.1	193.1	201.3	201.3
30°	1228.0	1175.2	748.2	239.8	193.1	191.1	187.0	183.0	178.9	187.0	187.0
32.5°	1282.9	1230.0	670.9	191.1	178.9	178.9	176.8	170.8	166.7	170.8	172.8
35°	1356.0	1293.0	583.4	166.7	160.5	160.5	160.5	158.6	150.5	154.5	154.5
37.5°	1453.6	1380.4	481.9	154.5	146.3	142.3	142.3	142.3	136.3	138.2	138.2
40°	1577.7	1482.2	384.2	144.4	136.3	126.0	122.0	124.1	120.0	120.0	117.9
42.5°	1746.5	1591.8	288.6	136.3	128.1	113.8	105.7	103.7	99.6	97.6	97.6
45°	1988.4	1726.1	207.4	128.1	122.0	99.6	91.4	85.3	75.2	69.1	69.1
47.5°	2301.5	1878.5	154.5	120.0	115.9	87.5	77.3	65.0	50.8	46.7	46.7
50°	2683.6	2049.4	130.2	107.7	105.7	77.3	60.9	42.7	28.4	24.4	26.4
52.5°	3055.8	2209.9	115.9	95.6	93.6	67.2	44.7	22.4	12.1	12.1	12.1
55°	3368.9	2323.7	105.7	85.3	81.3	52.9	24.4	10.2	6.1	6.1	6.1
57.5°	3651.4	2388.9	95.6	75.2	65.0	36.7	10.2	4.0	4.0	2.1	2.1
60°	3909.7	2427.5	83.4	65.0	50.8	20.3	4.0	2.1	2.1	0.0	0.0
62.5°	4163.7	2456.0	71.1	52.9	38.6	8.2	2.1	2.1	0.0	0.0	0.0
65°	4356.9	2445.7	57.0	42.7	24.4	4.0	2.1	0.0	0.0	0.0	0.0
67.5°	4350.9	2307.6	42.7	32.5	12.1	2.1	0.0	0.0	0.0	0.0	0.0
70°	3891.3	1943.7	28.4	20.3	4.0	2.1	0.0	0.0	0.0	0.0	0.0
72.5°	2760.9	1246.3	18.2	12.1	2.1	0.0	0.0	0.0	0.0	0.0	0.0
75°	1215.8	378.1	10.2	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	238.0	87.5	6.1	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	57.0	10.2	2.1	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	24.4	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	6.1	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.0	2.1	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)