

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: P265804

Luminaire Tested: **ARCH-M-AF48-90-D-U-T4W-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265804
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-AF48-90-D-U-T4W-7027-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 2700K, 600mA 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: 7939.2 lumens
Efficiency: N/A
Efficacy: 86.3 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): 92
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

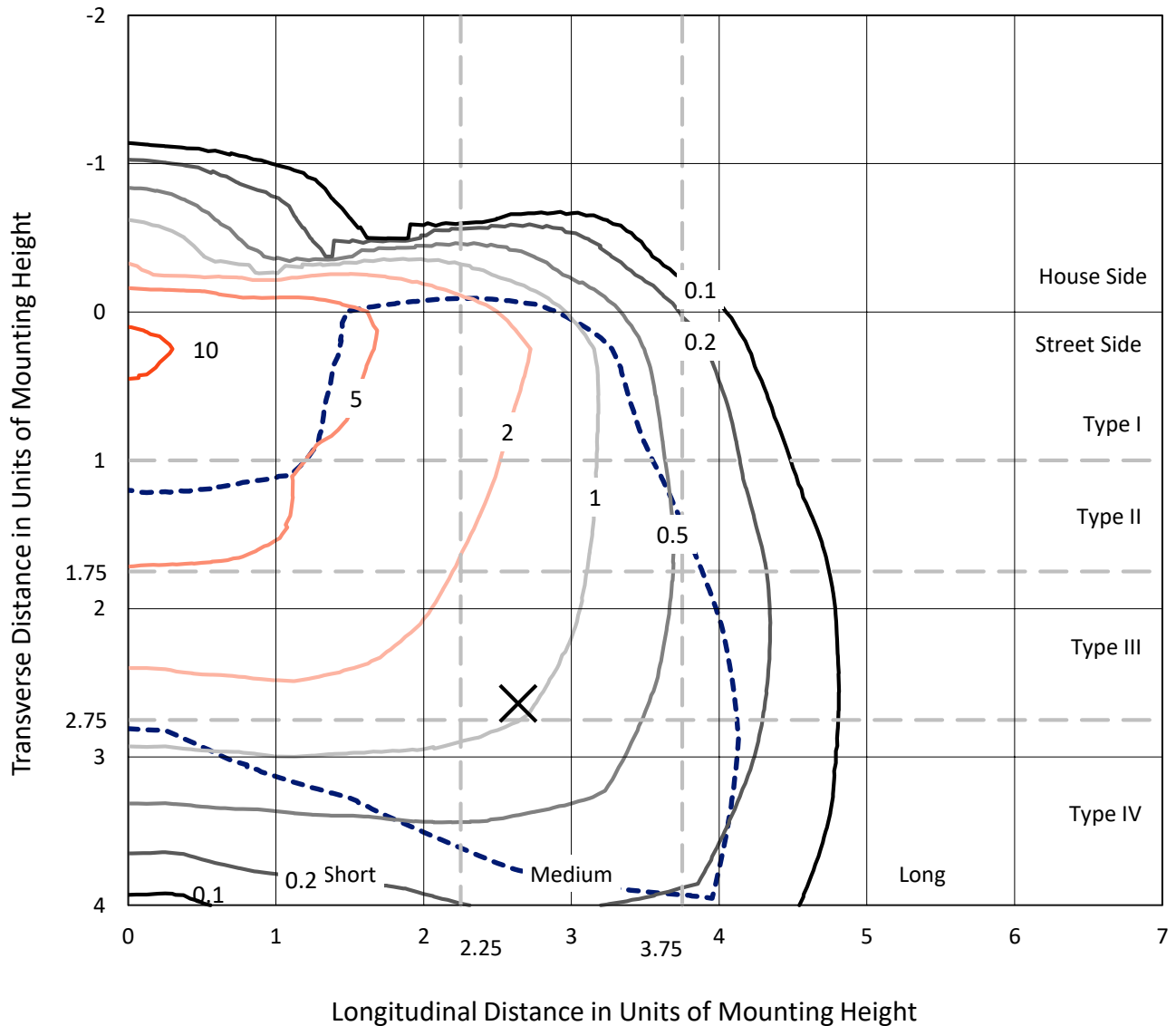


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

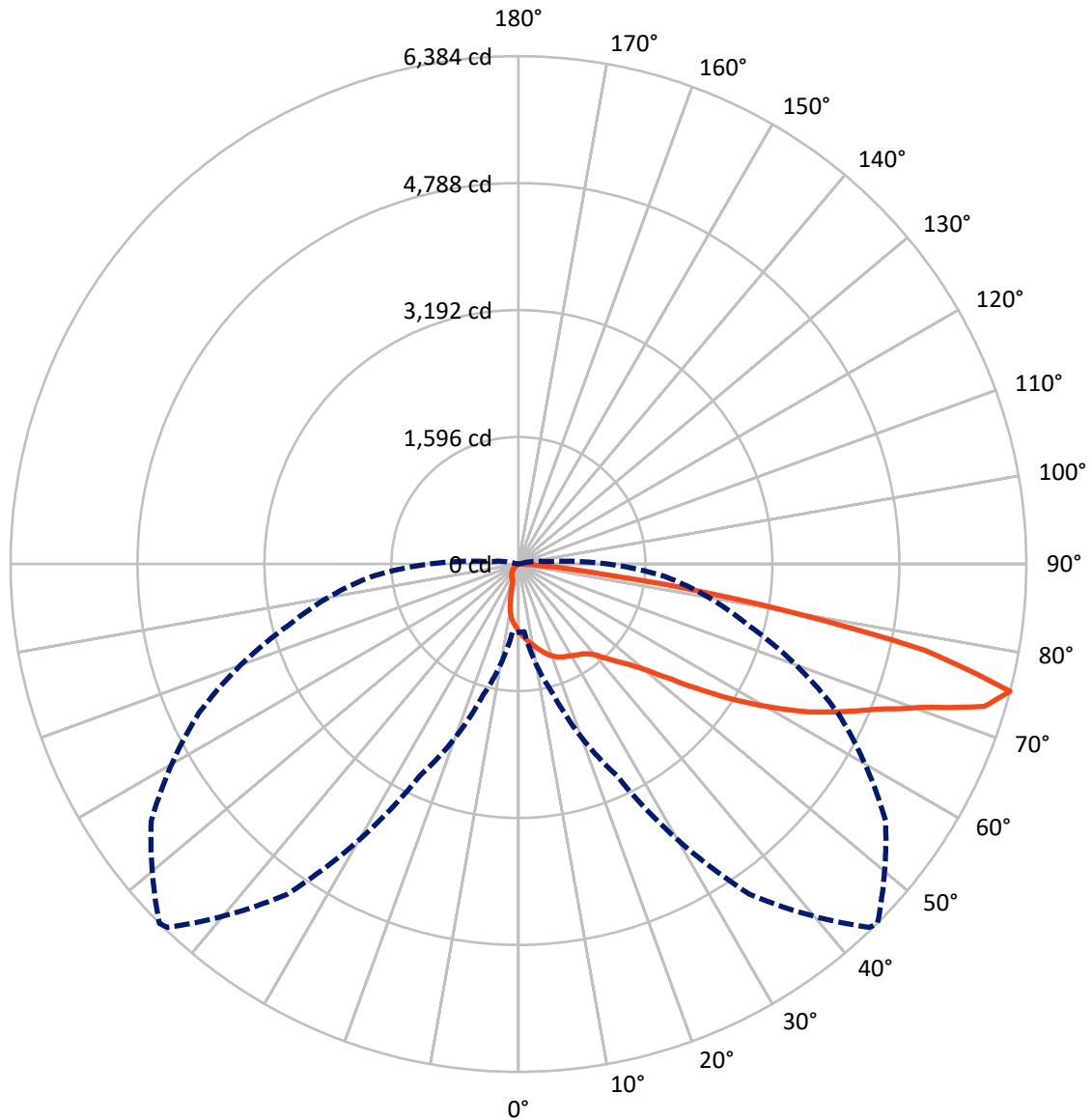


Based on 10 foot mounting height. Maximum calculated value = 11.3 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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

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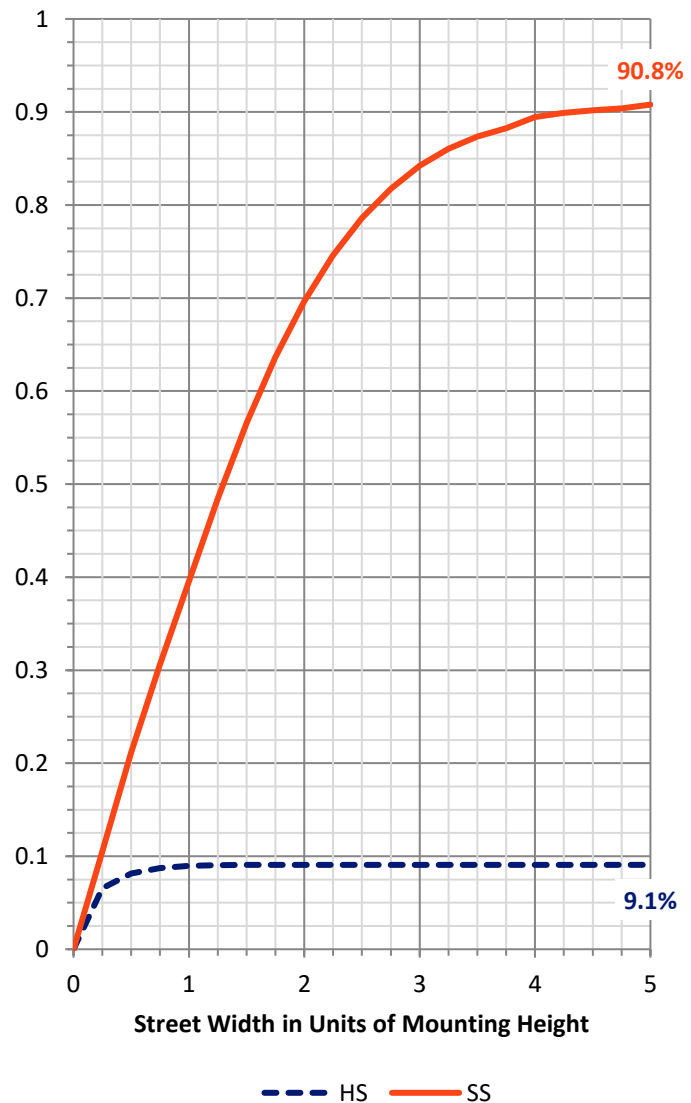
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	726.2	0.0	726.2
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	7213.0	0.0	7213.0
	% Fixture	90.9	0.0	90.9
Total	Lumens	7939.2	0.0	7939.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.1	1.0
10°-20°	227.0	2.9
20°-30°	376.0	4.7
30°-40°	544.2	6.9
40°-50°	891.1	11.2
50°-60°	1587.7	20.0
60°-70°	2334.1	29.4
70°-80°	1760.8	22.2
80°-90°	138.2	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°	7939.2	100.0
0°-180°	7939.2	100.0



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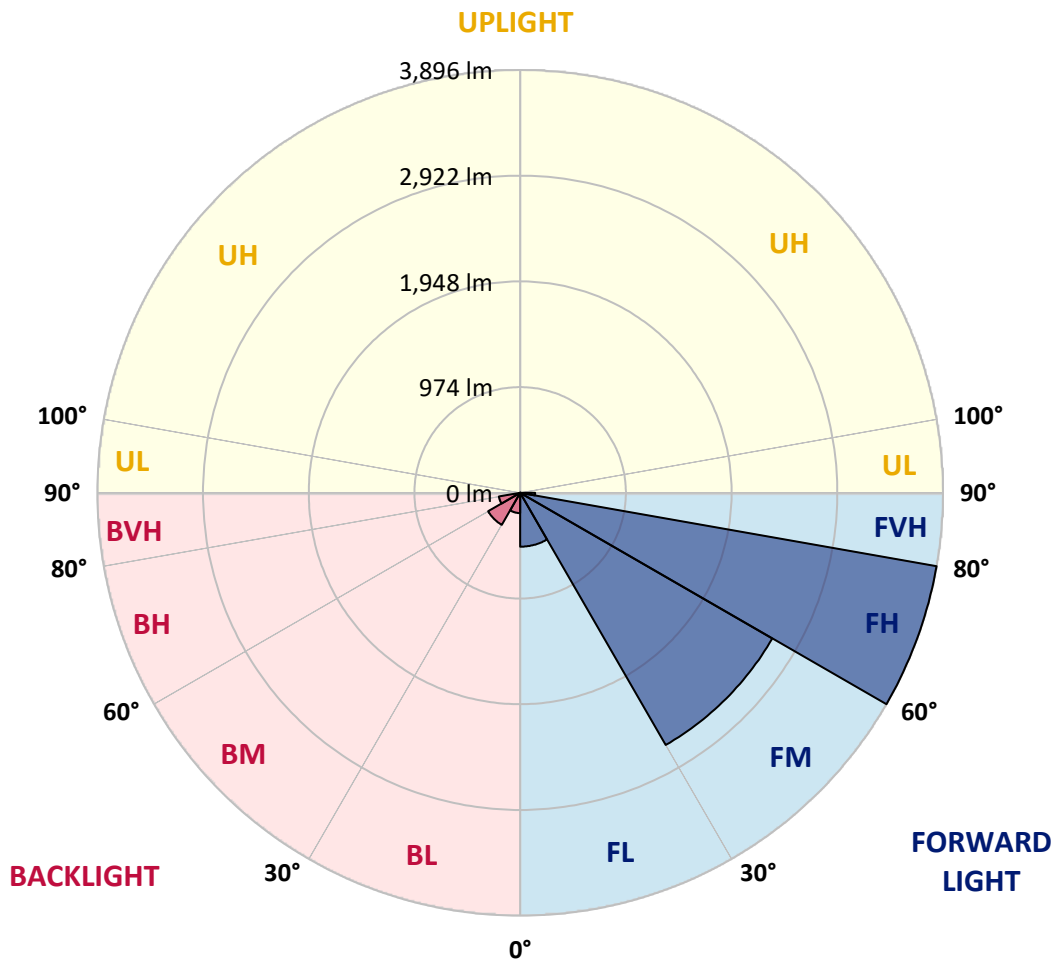
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	496.6	6.3			
FM	(30°-60°)	2682.6	33.8			
FH	(60°-80°)	3896.0	49.1			G2/5000
FVH	(80°-90°)	137.8	1.7			G2/225
BL	(0°-30°)	186.6	2.4	B1/500		
BM	(30°-60°)	340.3	4.3	B1/1000		
BH	(60°-80°)	198.9	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°	849.2	849.2	849.2	849.2	849.2	849.2	849.2	849.2	849.2	849.2	849.2
2.5°	922.4	922.4	920.6	918.6	909.3	899.8	897.9	892.3	875.5	864.2	852.9
5°	999.5	1001.3	997.6	988.1	967.5	946.9	944.9	929.9	897.9	875.5	851.1
7.5°	1072.7	1076.4	1067.0	1050.2	1025.8	995.7	993.7	965.6	924.3	892.3	856.7
10°	1134.6	1134.6	1121.5	1100.9	1074.6	1042.7	1038.9	1006.9	960.0	920.6	873.5
12.5°	1202.3	1200.5	1181.7	1153.5	1123.4	1093.3	1091.5	1052.0	1006.9	956.2	897.9
15°	1264.4	1260.5	1236.2	1209.8	1177.9	1146.0	1144.1	1104.6	1057.7	997.6	933.7
17.5°	1298.1	1296.3	1273.6	1247.3	1221.1	1196.7	1194.8	1153.5	1102.8	1040.7	969.5
20°	1303.8	1305.6	1286.8	1264.4	1249.4	1236.2	1236.2	1198.6	1144.1	1078.3	1006.9
22.5°	1305.6	1311.3	1298.1	1268.0	1264.4	1266.3	1269.9	1239.9	1183.5	1121.5	1046.3
25°	1318.8	1326.3	1316.9	1281.3	1277.5	1290.7	1294.4	1281.3	1230.5	1168.5	1091.5
27.5°	1345.1	1352.6	1345.1	1299.9	1294.4	1307.6	1311.3	1318.8	1281.3	1213.6	1138.4
30°	1397.8	1399.6	1382.8	1326.3	1315.1	1331.9	1337.5	1358.2	1328.2	1256.8	1183.5
32.5°	1489.7	1471.0	1420.2	1345.1	1335.7	1354.5	1360.2	1382.8	1371.4	1298.1	1230.5
35°	1677.7	1579.8	1463.5	1371.4	1362.0	1380.8	1388.3	1420.2	1425.9	1356.4	1288.8
37.5°	1675.8	1587.5	1564.8	1422.1	1409.0	1422.1	1431.4	1471.0	1493.5	1433.3	1373.2
40°	1794.1	1756.5	1756.5	1518.0	1474.7	1493.5	1503.0	1542.4	1581.8	1534.8	1472.9
42.5°	2166.1	2141.6	2115.2	1702.1	1566.7	1619.4	1625.0	1649.5	1696.4	1681.4	1608.1
45°	2581.2	2558.7	2457.3	2013.9	1724.6	1734.0	1747.2	1786.5	1854.2	1882.4	1796.0
47.5°	2906.2	2883.6	2797.3	2389.6	1970.7	1888.0	1888.0	1965.0	2070.2	2141.6	2058.9
50°	3167.3	3141.1	3088.5	2789.7	2374.6	2109.7	2098.4	2188.6	2344.5	2455.3	2399.1
52.5°	3420.9	3344.0	3312.1	3203.0	2831.1	2431.0	2400.9	2464.8	2680.8	2818.0	2771.0
55°	3590.0	3578.8	3545.0	3582.5	3310.2	2821.7	2795.3	2808.6	3079.1	3171.1	3112.8
57.5°	3747.9	3746.0	3821.1	3995.8	3832.3	3268.8	3227.5	3206.8	3464.3	3441.6	3492.4
60°	3943.2	3909.5	4084.1	4334.1	4311.4	3704.7	3657.7	3616.3	3759.1	3695.3	3947.1
62.5°	3952.6	3943.2	4298.3	4657.2	4786.8	4148.1	4093.5	3945.1	4016.5	3943.2	4380.9
65°	3593.8	3640.8	4388.5	4828.1	5184.9	4536.9	4471.1	4240.1	4245.7	4196.8	4892.0
67.5°	3513.0	3537.4	4140.5	5012.3	5472.5	4929.4	4867.6	4580.1	4512.5	4516.1	5194.4
70°	3312.1	3349.6	3832.3	4999.1	5699.7	5453.7	5391.6	5079.8	4916.3	4734.2	4961.5
72.5°	2530.5	2594.3	3229.3	4382.8	5637.8	6139.3	6122.5	5713.0	5077.8	4347.2	3753.5
75°	856.7	854.7	1696.4	2943.8	5064.7	6349.8	6383.5	5634.0	4429.8	2998.4	1863.7
77.5°	184.2	185.9	349.4	1192.9	3364.6	5098.6	5228.2	4249.4	2857.4	1335.7	426.4
80°	90.2	92.0	144.6	315.7	1345.1	2859.2	3062.1	2184.9	1055.8	266.7	71.3
82.5°	45.0	47.0	75.2	167.3	497.8	1016.3	1085.8	804.1	302.5	150.2	35.8
85°	16.9	16.9	37.5	99.5	227.4	238.6	293.0	232.9	182.3	122.1	9.4
87.5°	3.8	3.8	20.8	48.9	101.5	75.2	75.2	71.3	110.9	82.6	3.8
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°	849.2	849.2	849.2	849.2	849.2	849.2	849.2	849.2	849.2	849.2	849.2
2.5°	847.2	839.7	826.6	813.4	804.1	792.8	787.2	781.5	779.5	777.8	781.5
5°	837.8	826.6	802.1	781.5	762.8	747.7	736.4	725.1	719.5	715.8	717.7
7.5°	837.8	821.1	785.3	753.3	723.2	691.3	659.4	635.0	616.1	604.9	606.7
10°	847.2	824.7	777.8	734.5	678.2	610.6	541.0	488.5	452.7	432.1	432.1
12.5°	867.9	837.8	779.5	711.9	616.1	497.8	392.6	328.8	302.5	287.5	289.3
15°	896.1	860.3	789.0	682.0	529.8	370.1	274.3	232.9	232.9	236.8	238.6
17.5°	928.0	888.7	796.5	636.9	418.9	264.9	216.0	212.3	217.8	227.4	227.4
20°	960.0	916.8	800.3	565.5	313.8	210.5	204.8	204.8	208.5	217.8	219.7
22.5°	999.5	952.5	796.5	477.2	234.8	199.2	197.3	197.3	197.3	208.5	208.5
25°	1040.7	993.7	781.5	383.2	199.2	191.6	189.7	187.8	187.8	197.3	199.2
27.5°	1087.8	1037.1	745.9	293.0	187.8	184.2	182.3	178.5	178.5	185.9	185.9
30°	1134.6	1085.8	691.3	221.7	178.5	176.5	172.8	169.2	165.3	172.8	172.8
32.5°	1185.5	1136.5	619.9	176.5	165.3	165.3	163.4	157.8	154.1	157.8	159.7
35°	1253.0	1194.8	539.2	154.1	148.4	148.4	148.4	146.6	139.0	142.8	142.8
37.5°	1343.2	1275.7	445.2	142.8	135.3	131.5	131.5	131.5	125.9	127.7	127.7
40°	1457.8	1369.6	355.1	133.4	125.9	116.5	112.6	114.7	110.9	110.9	109.0
42.5°	1613.7	1471.0	266.7	125.9	118.3	105.2	97.6	95.8	92.0	90.2	90.2
45°	1837.4	1595.0	191.6	118.3	112.6	92.0	84.5	79.0	69.4	63.9	63.9
47.5°	2126.6	1735.9	142.8	110.9	107.1	80.8	71.3	60.1	47.0	43.2	43.2
50°	2479.9	1893.6	120.3	99.5	97.6	71.3	56.4	39.4	26.3	22.5	24.4
52.5°	2823.6	2042.0	107.1	88.4	86.3	62.1	41.3	20.8	11.3	11.3	11.3
55°	3112.8	2147.3	97.6	79.0	75.2	48.9	22.5	9.4	5.6	5.6	5.6
57.5°	3374.0	2207.3	88.4	69.4	60.1	33.9	9.4	3.8	3.8	1.8	1.8
60°	3612.7	2243.1	77.1	60.1	47.0	18.8	3.8	1.8	1.8	0.0	0.0
62.5°	3847.4	2269.4	65.8	48.9	35.8	7.5	1.8	1.8	0.0	0.0	0.0
65°	4025.9	2260.0	52.6	39.4	22.5	3.8	1.8	0.0	0.0	0.0	0.0
67.5°	4020.3	2132.2	39.4	30.1	11.3	1.8	0.0	0.0	0.0	0.0	0.0
70°	3595.6	1796.0	26.3	18.8	3.8	1.8	0.0	0.0	0.0	0.0	0.0
72.5°	2551.1	1151.5	16.9	11.3	1.8	0.0	0.0	0.0	0.0	0.0	0.0
75°	1123.4	349.4	9.4	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	219.7	80.8	5.6	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	52.6	9.4	1.8	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	22.5	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	5.6	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.8	1.8	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)