

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: P231340

Luminaire Tested: **ARCH-M-AF48-90-D-U-T4W-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231340
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-7030-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 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: 8089 lumens
Efficiency: N/A
Efficacy: 87.9 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

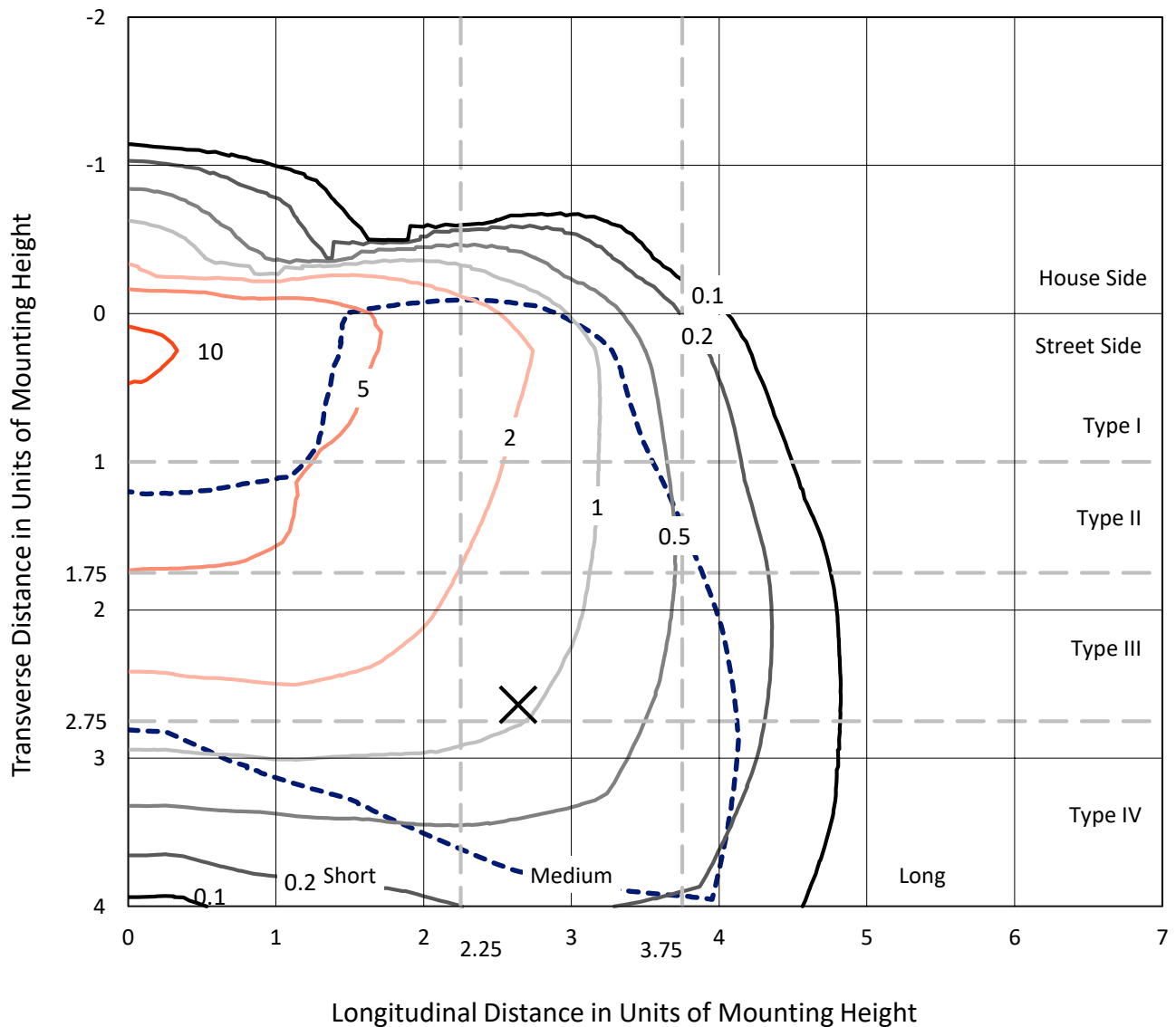


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

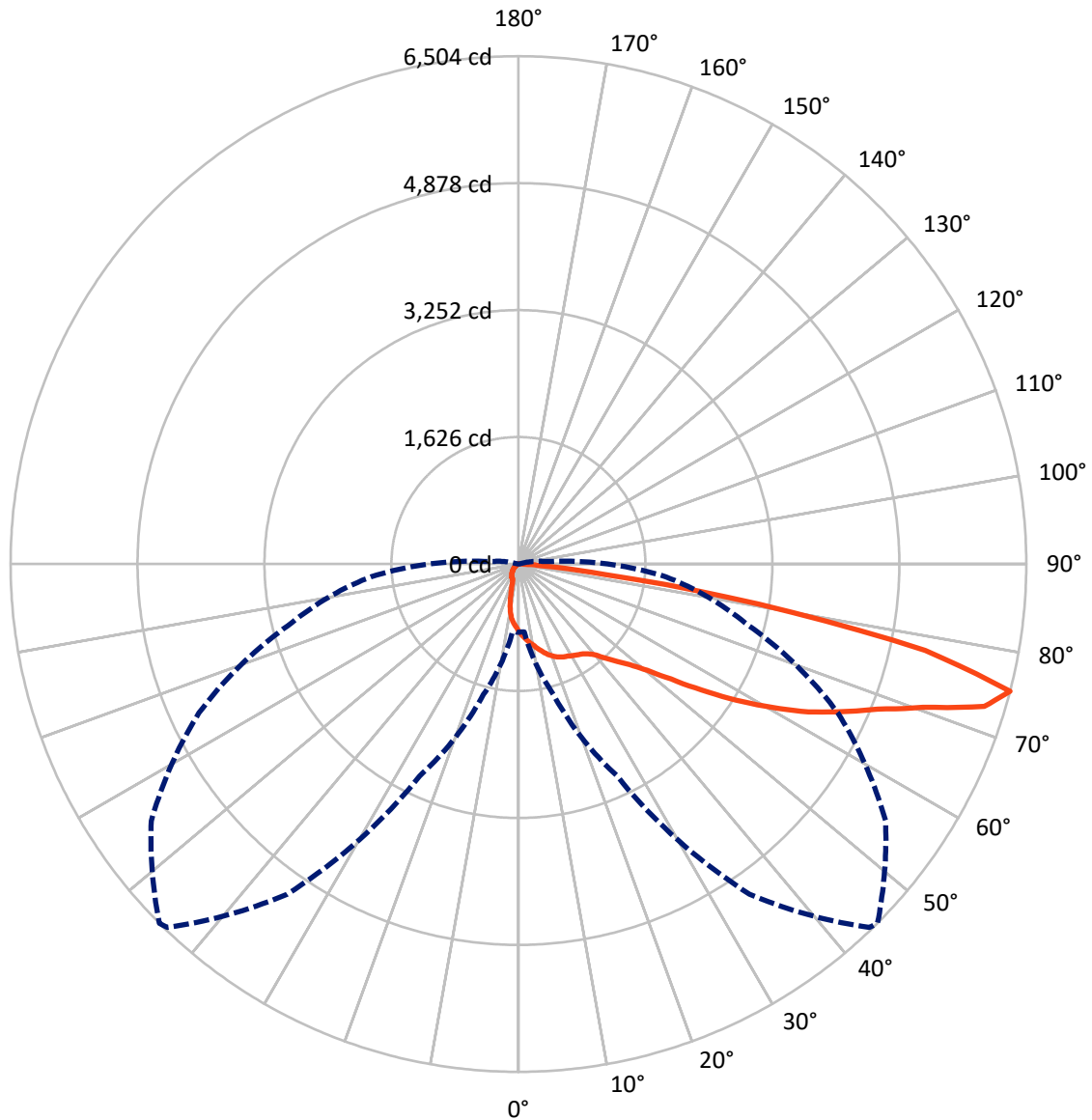


Based on 10 foot mounting height. Maximum calculated value = 11.5 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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

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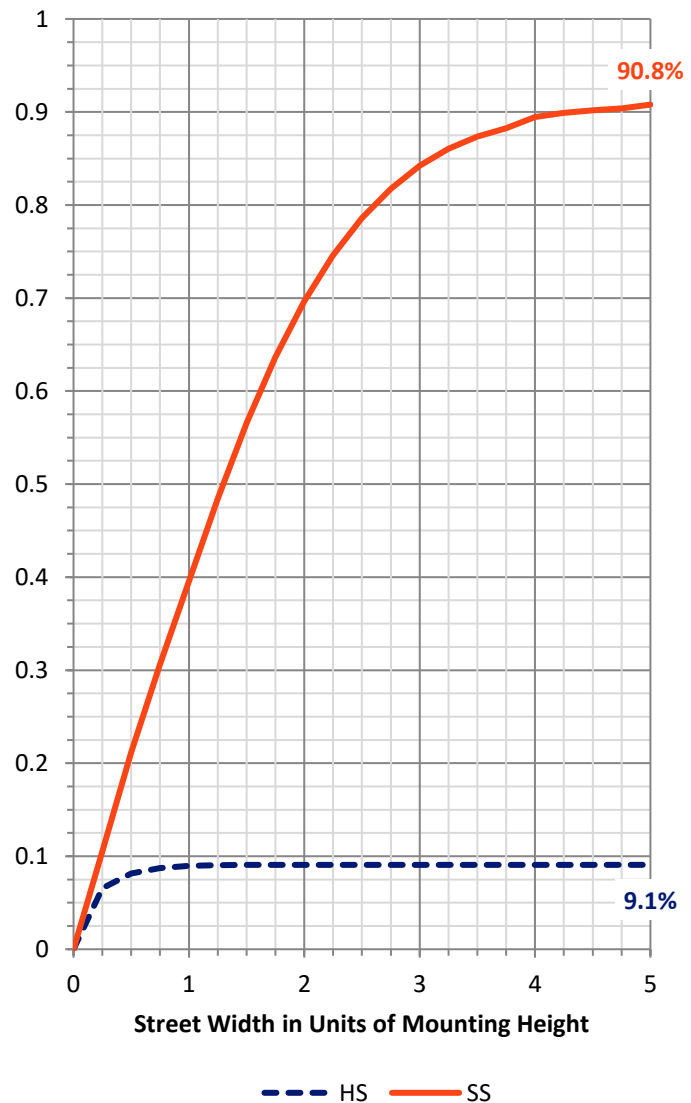
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	739.9	0.0	739.9
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	7349.1	0.0	7349.1
	% Fixture	90.9	0.0	90.9
Total	Lumens	8089.0	0.0	8089.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.6	1.0
10°-20°	231.3	2.9
20°-30°	383.1	4.7
30°-40°	554.4	6.9
40°-50°	907.9	11.2
50°-60°	1617.6	20.0
60°-70°	2378.1	29.4
70°-80°	1794.1	22.2
80°-90°	140.8	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°	8089.0	100.0
0°-180°	8089.0	100.0



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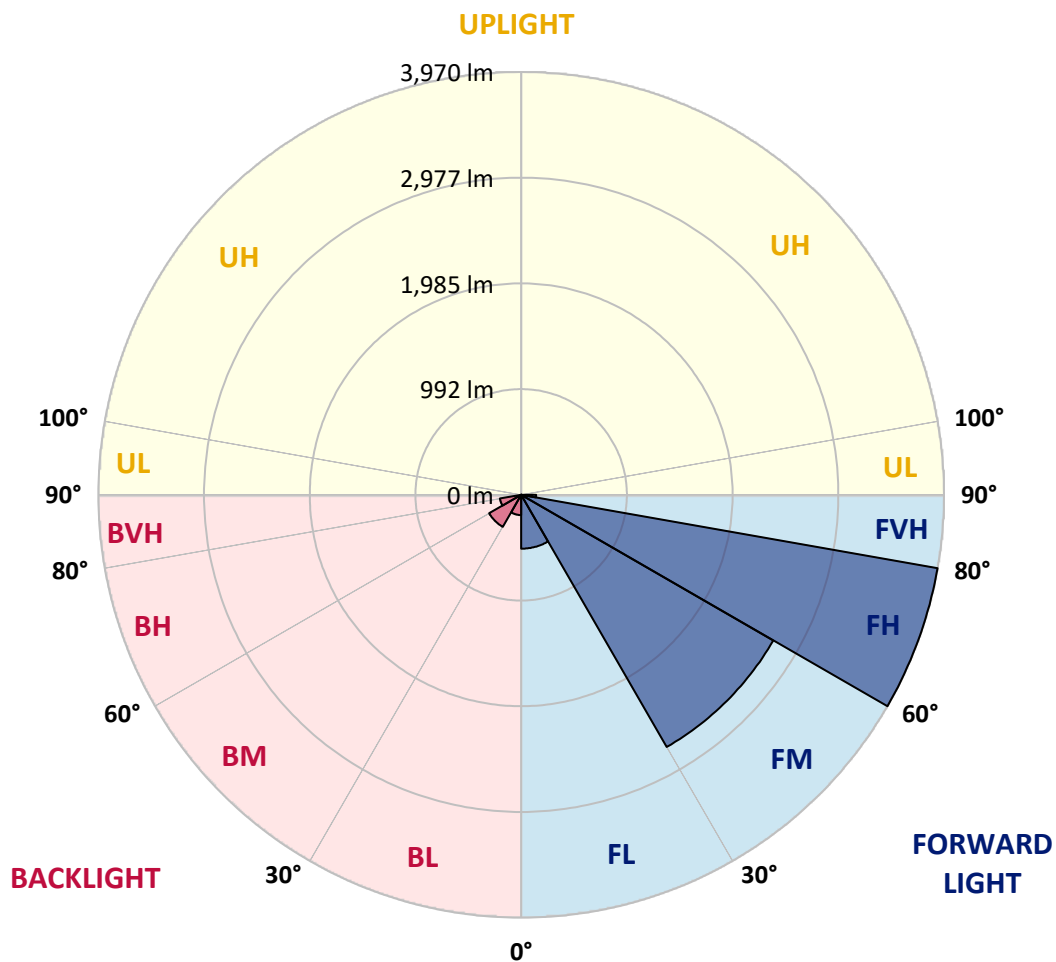
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	505.9	6.3			
FM	(30°-60°)	2733.2	33.8			
FH	(60°-80°)	3969.6	49.1			G2/5000
FVH	(80°-90°)	140.4	1.7			G2/225
BL	(0°-30°)	190.1	2.4	B1/500		
BM	(30°-60°)	346.7	4.3	B1/1000		
BH	(60°-80°)	202.7	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°	865.2	865.2	865.2	865.2	865.2	865.2	865.2	865.2	865.2	865.2	865.2
2.5°	939.8	939.8	937.9	936.0	926.4	916.8	914.9	909.2	892.0	880.5	869.0
5°	1018.3	1020.2	1016.4	1006.8	985.7	964.7	962.8	947.5	914.9	892.0	867.1
7.5°	1092.9	1096.8	1087.2	1070.0	1045.1	1014.5	1012.5	983.8	941.7	909.2	872.8
10°	1156.1	1156.1	1142.7	1121.6	1094.9	1062.3	1058.5	1025.9	978.1	937.9	890.0
12.5°	1225.0	1223.1	1204.0	1175.2	1144.6	1114.0	1112.1	1071.9	1025.9	974.3	914.9
15°	1288.2	1284.3	1259.5	1232.7	1200.1	1167.6	1165.7	1125.5	1077.6	1016.4	951.3
17.5°	1322.6	1320.7	1297.7	1270.9	1244.1	1219.3	1217.4	1175.2	1123.6	1060.4	987.7
20°	1328.4	1330.3	1311.1	1288.2	1272.9	1259.5	1259.5	1221.2	1165.7	1098.7	1025.9
22.5°	1330.3	1336.0	1322.6	1292.0	1288.2	1290.1	1293.9	1263.3	1205.9	1142.7	1066.1
25°	1343.7	1351.3	1341.8	1305.4	1301.6	1315.0	1318.8	1305.4	1253.7	1190.6	1112.1
27.5°	1370.5	1378.1	1370.5	1324.5	1318.8	1332.2	1336.0	1343.7	1305.4	1236.5	1159.9
30°	1424.1	1426.0	1408.8	1351.3	1339.9	1357.1	1362.8	1383.9	1353.3	1280.5	1205.9
32.5°	1517.9	1498.7	1447.0	1370.5	1360.9	1380.0	1385.8	1408.8	1397.3	1322.6	1253.7
35°	1709.3	1609.7	1491.1	1397.3	1387.7	1406.8	1414.5	1447.0	1452.8	1382.0	1313.1
37.5°	1707.4	1617.4	1594.4	1449.0	1435.6	1449.0	1458.5	1498.7	1521.7	1460.4	1399.2
40°	1827.9	1789.7	1789.7	1546.6	1502.5	1521.7	1531.3	1571.5	1611.7	1563.8	1500.6
42.5°	2206.9	2182.0	2155.2	1734.2	1596.3	1649.9	1655.7	1680.6	1728.4	1713.1	1638.4
45°	2629.9	2607.0	2503.6	2051.9	1757.1	1766.7	1780.1	1820.3	1889.2	1917.9	1829.9
47.5°	2961.1	2938.1	2850.1	2434.7	2007.9	1923.6	1923.6	2002.1	2109.3	2182.0	2097.8
50°	3227.1	3200.3	3146.7	2842.4	2419.4	2149.5	2138.0	2229.9	2388.8	2501.7	2444.3
52.5°	3485.5	3407.1	3374.5	3263.5	2884.5	2476.8	2446.2	2511.3	2731.4	2871.1	2823.3
55°	3657.8	3646.3	3611.9	3650.1	3372.6	2874.9	2848.1	2861.5	3137.2	3231.0	3171.6
57.5°	3818.6	3816.7	3893.2	4071.2	3904.7	3330.5	3288.4	3267.3	3529.6	3506.6	3558.3
60°	4017.6	3983.2	4161.2	4415.8	4392.8	3774.6	3726.7	3684.6	3830.1	3765.0	4021.5
62.5°	4027.2	4017.6	4379.4	4745.0	4877.1	4226.3	4170.8	4019.6	4092.3	4017.6	4463.6
65°	3661.6	3709.5	4471.3	4919.2	5282.8	4622.5	4555.5	4320.1	4325.8	4276.0	4984.3
67.5°	3579.3	3604.2	4218.6	5106.8	5575.7	5022.5	4959.4	4666.5	4597.6	4601.4	5292.4
70°	3374.5	3412.8	3904.7	5093.4	5807.3	5556.6	5493.4	5175.7	5009.1	4823.5	5055.1
72.5°	2578.3	2643.3	3290.3	4465.5	5744.1	6255.2	6238.0	5820.7	5173.7	4429.2	3824.3
75°	872.8	870.9	1728.4	2999.4	5160.3	6469.6	6504.0	5740.3	4513.4	3054.9	1898.8
77.5°	187.6	189.5	356.0	1215.4	3428.1	5194.8	5326.9	4329.6	2911.3	1360.9	434.5
80°	91.9	93.8	147.4	321.6	1370.5	2913.2	3119.9	2226.1	1075.7	271.8	72.7
82.5°	45.9	47.9	76.6	170.4	507.2	1035.5	1106.3	819.2	308.2	153.1	36.4
85°	17.2	17.2	38.3	101.4	231.6	243.1	298.6	237.3	185.7	124.4	9.6
87.5°	3.8	3.8	21.1	49.8	103.4	76.6	76.6	72.7	112.9	84.2	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°	865.2	865.2	865.2	865.2	865.2	865.2	865.2	865.2	865.2	865.2	865.2
2.5°	863.2	855.6	842.2	828.8	819.2	807.7	802.0	796.3	794.3	792.4	796.3
5°	853.7	842.2	817.3	796.3	777.1	761.8	750.3	738.8	733.1	729.3	731.2
7.5°	853.7	836.5	800.1	767.5	736.9	704.4	671.8	647.0	627.8	616.3	618.2
10°	863.2	840.3	792.4	748.4	691.0	622.1	551.3	497.7	461.3	440.2	440.2
12.5°	884.3	853.7	794.3	725.4	627.8	507.2	400.0	335.0	308.2	292.9	294.8
15°	913.0	876.6	803.9	694.8	539.8	377.1	279.5	237.3	237.3	241.2	243.1
17.5°	945.6	905.4	811.6	648.9	426.8	269.9	220.1	216.3	222.0	231.6	231.6
20°	978.1	934.1	815.4	576.1	319.7	214.4	208.6	208.6	212.5	222.0	223.9
22.5°	1018.3	970.4	811.6	486.2	239.3	202.9	201.0	201.0	201.0	212.5	212.5
25°	1060.4	1012.5	796.3	390.5	202.9	195.2	193.3	191.4	191.4	201.0	202.9
27.5°	1108.3	1056.6	759.9	298.6	191.4	187.6	185.7	181.8	181.8	189.5	189.5
30°	1156.1	1106.3	704.4	225.9	181.8	179.9	176.1	172.3	168.4	176.1	176.1
32.5°	1207.8	1158.0	631.6	179.9	168.4	168.4	166.5	160.8	157.0	160.8	162.7
35°	1276.7	1217.4	549.3	157.0	151.2	151.2	151.2	149.3	141.6	145.5	145.5
37.5°	1368.6	1299.7	453.6	145.5	137.8	134.0	134.0	134.0	128.2	130.2	130.2
40°	1485.3	1395.4	361.8	135.9	128.2	118.7	114.8	116.8	112.9	112.9	111.0
42.5°	1644.2	1498.7	271.8	128.2	120.6	107.2	99.5	97.6	93.8	91.9	91.9
45°	1872.0	1625.1	195.2	120.6	114.8	93.8	86.1	80.4	70.8	65.1	65.1
47.5°	2166.7	1768.6	145.5	112.9	109.1	82.3	72.7	61.3	47.9	44.0	44.0
50°	2526.6	1929.4	122.5	101.4	99.5	72.7	57.4	40.2	26.8	23.0	24.9
52.5°	2876.9	2080.6	109.1	90.0	88.0	63.2	42.1	21.1	11.5	11.5	11.5
55°	3171.6	2187.8	99.5	80.4	76.6	49.8	23.0	9.6	5.7	5.7	5.7
57.5°	3437.7	2249.0	90.0	70.8	61.3	34.5	9.6	3.8	3.8	1.9	1.9
60°	3680.8	2285.4	78.5	61.3	47.9	19.1	3.8	1.9	1.9	0.0	0.0
62.5°	3920.0	2312.2	67.0	49.8	36.4	7.7	1.9	1.9	0.0	0.0	0.0
65°	4101.9	2302.6	53.6	40.2	23.0	3.8	1.9	0.0	0.0	0.0	0.0
67.5°	4096.1	2172.5	40.2	30.6	11.5	1.9	0.0	0.0	0.0	0.0	0.0
70°	3663.5	1829.9	26.8	19.1	3.8	1.9	0.0	0.0	0.0	0.0	0.0
72.5°	2599.3	1173.3	17.2	11.5	1.9	0.0	0.0	0.0	0.0	0.0	0.0
75°	1144.6	356.0	9.6	5.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	223.9	82.3	5.7	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	53.6	9.6	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	23.0	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	5.7	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.8	1.9	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)