

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: P257849

Luminaire Tested: **ARCH-M-AF48-70-D-U-T2U-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P257849
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1802-616-3)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-70-D-U-T2U-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 470mA LIGHT ENGINES WITH 24 LEDS AND TYPE II U OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7081.9 lumens
Efficiency: N/A
Efficacy: 97.0 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B1 - U0 - G2

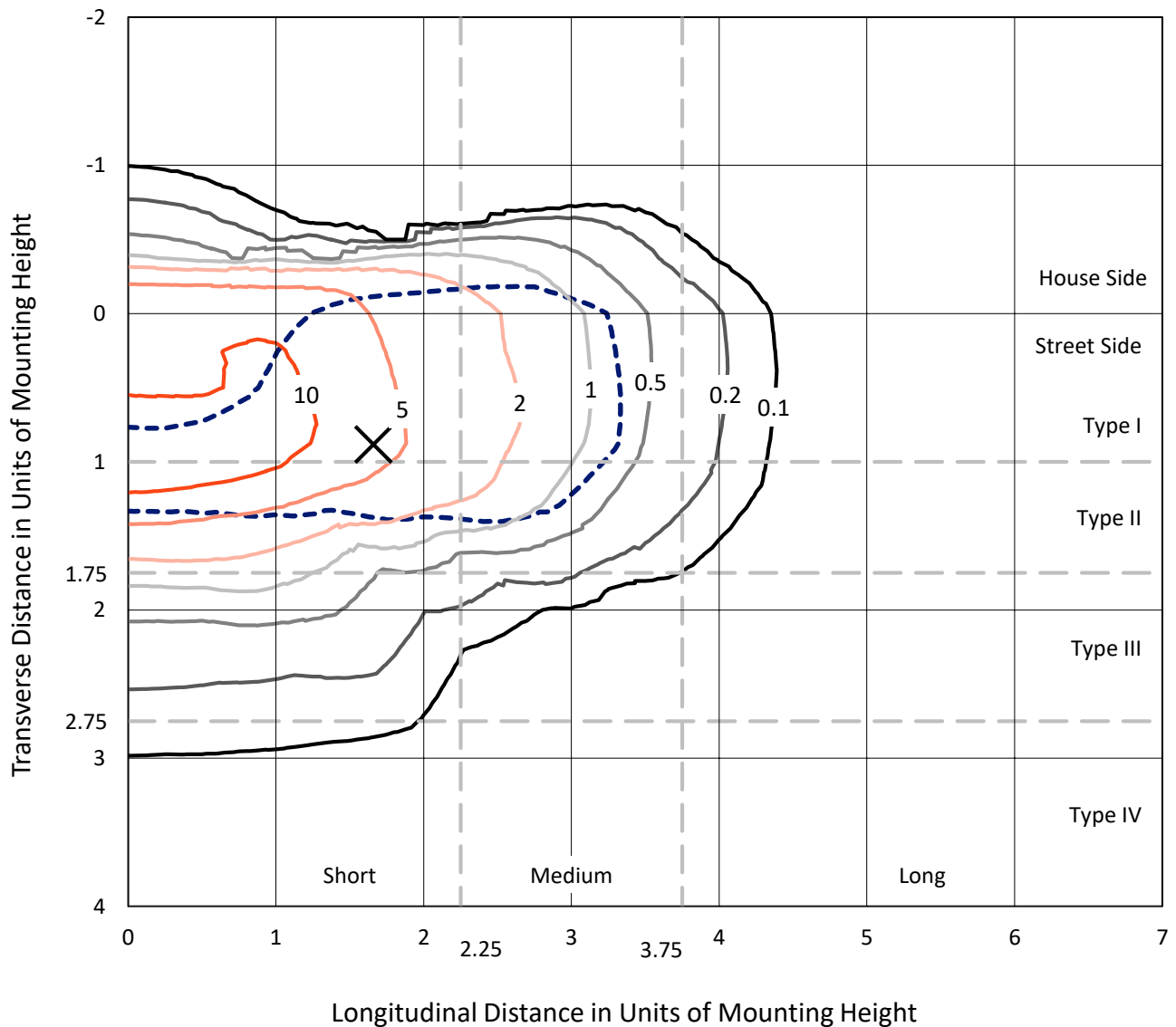
Input Watts (W): 73
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

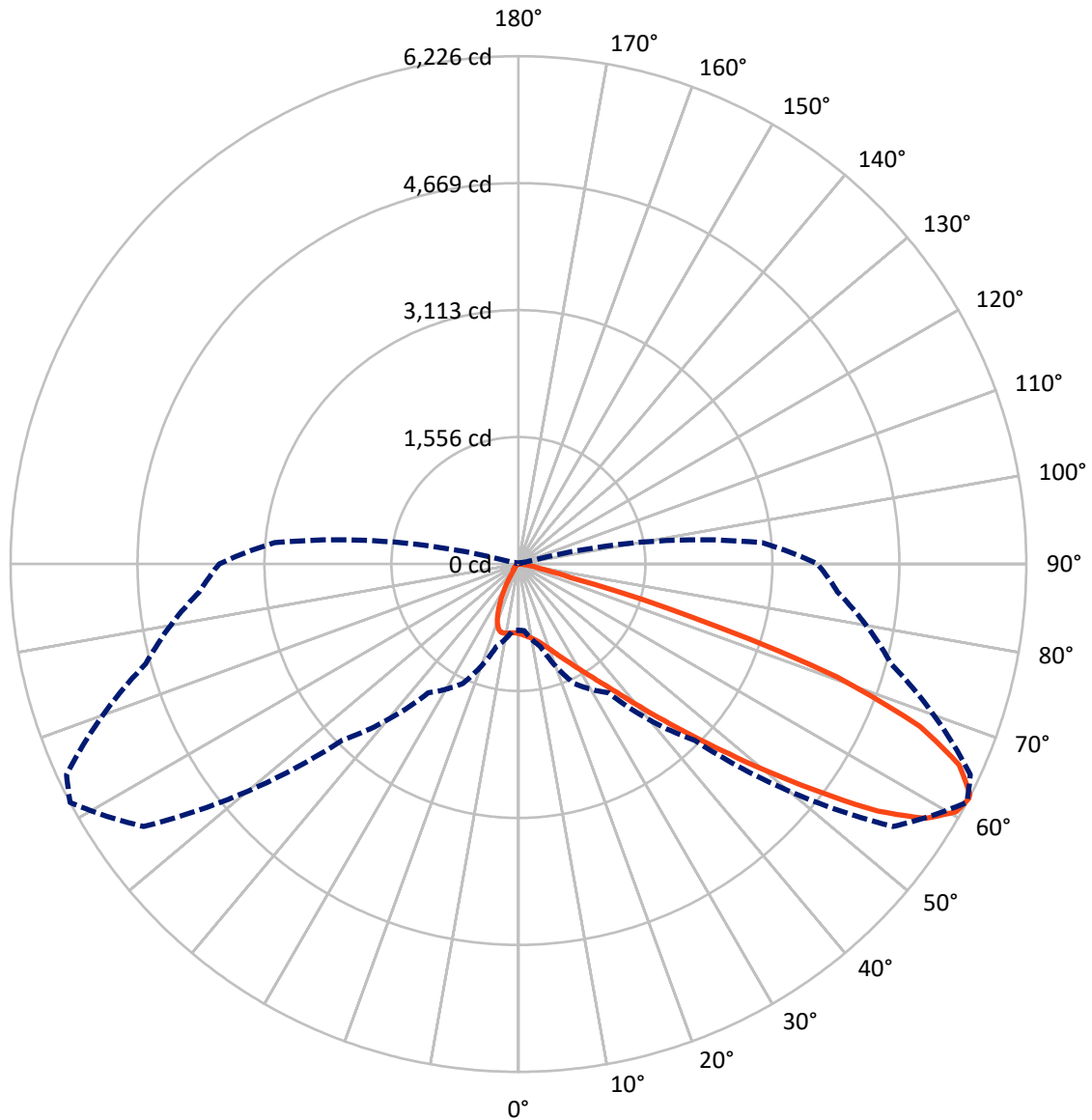
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 16.3 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 62-Deg Lateral - - - Horizontal Cone Through 62-Deg Vertical



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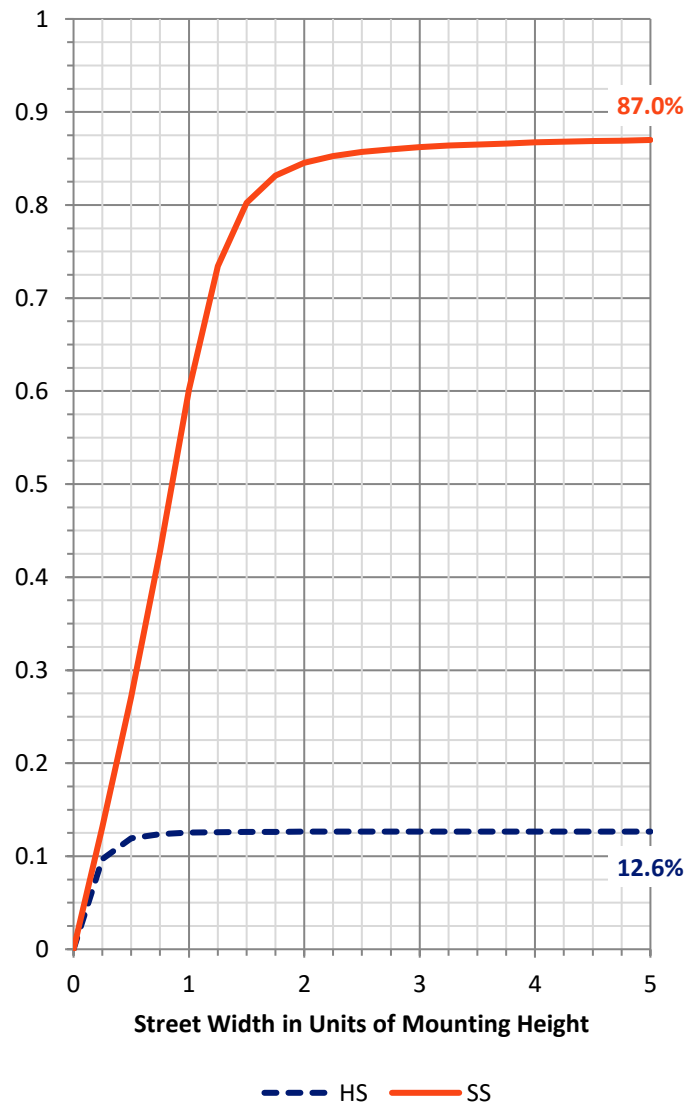
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	905.5	0.0	905.5
	% Fixture	12.8	0.0	12.8
Street Side	Lumens	6176.4	0.0	6176.4
	% Fixture	87.2	0.0	87.2
Total	Lumens	7081.9	0.0	7081.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.1	1.2
10°-20°	229.3	3.2
20°-30°	385.0	5.4
30°-40°	738.1	10.4
40°-50°	1507.5	21.3
50°-60°	1995.0	28.2
60°-70°	1549.8	21.9
70°-80°	559.4	7.9
80°-90°	35.6	0.5
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°	7081.9	100.0
0°-180°	7081.9	100.0

Coefficient of Utilization



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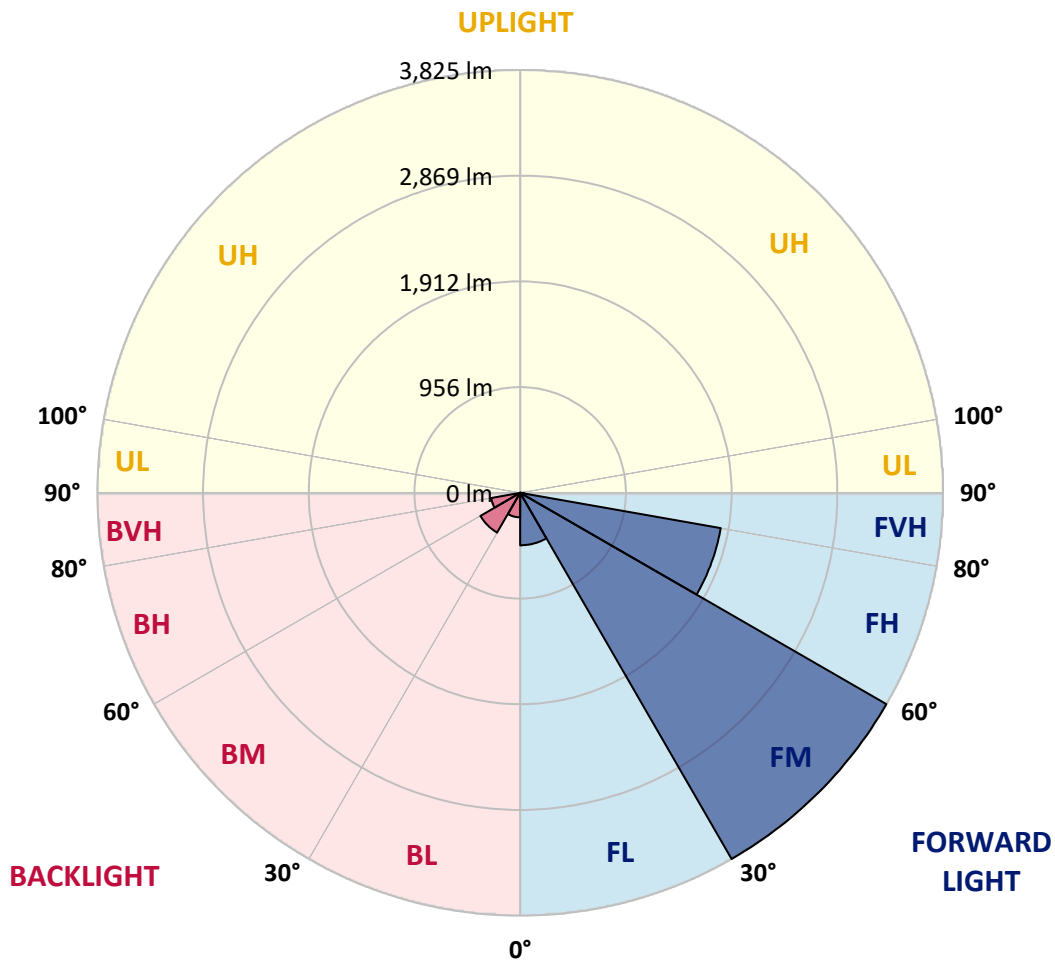
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	474.8	6.7			
FM	(30°-60°)	3825.0	54.0			
FH	(60°-80°)	1842.5	26.0			G2/5000
FVH	(80°-90°)	34.1	0.5			G1/100
BL	(0°-30°)	221.6	3.1	B1/500		
BM	(30°-60°)	415.7	5.9	B1/1000		
BH	(60°-80°)	266.6	3.8	B1/500		G1/500
BVH	(80°-90°)	1.6	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 II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	62°	65°	75°	85°
0°	853.1	853.1	853.1	853.1	853.1	853.1	853.1	853.1	853.1	853.1	853.1
2.5°	875.7	874.0	872.3	870.5	870.5	868.8	867.1	863.6	860.1	856.6	854.9
5°	891.4	889.7	887.9	889.7	887.9	887.9	886.2	882.7	879.2	874.0	868.8
7.5°	903.6	901.8	900.1	901.8	903.6	905.3	907.1	903.6	901.8	894.9	889.7
10°	919.2	917.5	915.7	919.2	919.2	928.0	929.8	928.0	926.2	921.0	912.3
12.5°	941.9	943.7	943.7	947.2	950.6	961.1	964.5	959.3	959.3	952.4	941.9
15°	983.7	983.7	983.7	987.1	988.9	1002.8	1006.3	1001.1	1004.5	992.4	981.9
17.5°	1023.8	1025.5	1029.0	1035.9	1035.9	1048.1	1055.1	1055.1	1062.0	1046.4	1032.5
20°	1063.8	1065.5	1070.7	1086.4	1086.4	1102.0	1114.3	1119.5	1126.5	1110.8	1086.4
22.5°	1107.3	1107.3	1116.0	1140.4	1135.2	1166.5	1189.1	1197.9	1204.8	1183.9	1145.6
25°	1173.4	1166.5	1173.4	1196.1	1192.6	1236.1	1277.9	1286.7	1295.4	1270.9	1213.5
27.5°	1298.8	1288.4	1264.0	1265.7	1265.7	1316.2	1375.5	1387.6	1392.8	1372.0	1300.6
30°	1549.6	1549.6	1459.0	1398.1	1358.0	1403.3	1486.9	1507.7	1514.7	1483.4	1389.4
32.5°	1986.5	1986.5	1819.4	1664.4	1512.9	1512.9	1608.7	1647.1	1654.0	1617.4	1507.7
35°	2543.7	2540.2	2289.5	2077.1	1781.1	1669.7	1751.5	1815.9	1836.8	1788.0	1661.0
37.5°	3135.5	3112.9	2843.1	2599.3	2193.7	1920.4	1944.7	2030.0	2049.2	2009.2	1859.4
40°	3616.1	3590.0	3372.4	3168.7	2726.5	2320.8	2223.3	2301.6	2324.2	2268.6	2096.2
42.5°	4051.4	3987.0	3837.2	3691.0	3339.3	3013.7	2594.1	2625.5	2649.9	2590.6	2362.6
45°	4366.5	4267.2	4190.6	4145.4	3959.1	3774.6	3074.7	3012.0	3020.7	2947.5	2653.3
47.5°	4375.3	4305.6	4312.6	4430.9	4507.5	4500.6	3699.7	3476.8	3443.8	3321.9	2963.3
50°	3957.4	3997.4	4124.5	4462.3	4876.6	5127.3	4443.1	4027.1	3927.7	3708.4	3271.4
52.5°	3261.0	3323.7	3562.1	4131.5	4930.6	5540.0	5214.4	4655.6	4478.0	4091.4	3508.2
55°	2554.1	2557.6	2808.3	3388.0	4570.2	5614.9	5830.7	5346.8	5075.1	4382.2	3664.8
57.5°	1756.7	1852.5	2171.1	2561.1	3757.2	5242.2	6062.3	5883.0	5533.0	4561.5	3774.6
60°	1150.8	1156.0	1526.9	1977.8	2557.6	4265.5	5921.2	6166.8	5903.9	4667.7	3849.5
62°	811.3	820.0	1049.9	1615.6	1927.3	3057.3	5609.6	6225.9	6112.7	4730.4	3927.7
62.5°	752.2	759.1	952.4	1525.1	1810.6	2742.1	5498.2	6212.0	6144.1	4751.3	3955.6
65°	551.9	551.9	623.3	1048.1	1326.7	1481.6	4659.0	5935.2	6102.3	4918.4	4060.1
67.5°	426.6	430.0	454.4	645.9	1001.1	898.4	2973.7	5311.9	5667.0	5165.6	4119.3
70°	367.3	365.6	383.0	428.3	722.5	597.2	1309.3	4145.4	4746.1	5103.0	4065.3
72.5°	271.6	273.3	313.4	376.0	503.2	388.2	592.0	2200.7	3078.2	3993.9	3483.8
75°	174.1	175.8	221.2	295.9	362.1	254.2	341.3	656.3	1260.5	2214.6	2131.0
77.5°	116.6	120.1	144.5	207.1	316.9	158.5	214.1	275.1	379.5	830.4	764.3
80°	78.4	78.4	92.3	139.3	200.2	132.3	114.9	182.8	196.7	257.7	128.8
82.5°	52.3	52.3	61.0	92.3	130.5	118.4	69.7	99.2	114.9	128.8	45.3
85°	31.3	31.3	41.7	57.5	85.3	66.2	45.3	55.8	59.2	81.8	24.3
87.5°	19.1	17.4	27.8	40.0	45.3	40.0	29.6	29.6	31.3	45.3	12.2
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°	853.1	853.1	853.1	853.1	853.1	853.1	853.1	853.1	853.1	853.1	853.1
2.5°	851.4	849.7	847.9	844.4	839.1	835.6	832.2	828.7	825.2	825.2	830.4
5°	867.1	861.8	854.9	847.9	837.4	830.4	825.2	818.3	814.8	814.8	816.5
7.5°	886.2	881.0	868.8	856.6	841.0	828.7	816.5	800.9	788.7	783.5	788.7
10°	907.1	900.1	882.7	863.6	846.2	814.8	774.8	726.0	684.3	665.1	673.8
12.5°	933.2	924.4	903.6	877.5	837.4	760.9	661.5	548.4	477.0	444.0	450.9
15°	971.5	959.3	929.8	889.7	800.9	635.5	473.5	343.0	276.8	249.0	252.5
17.5°	1016.8	1001.1	961.1	886.2	706.9	457.9	282.0	200.2	172.4	165.4	165.4
20°	1065.5	1044.6	992.4	860.1	564.1	287.2	175.8	153.2	142.8	137.6	137.6
22.5°	1116.0	1088.1	1018.6	799.1	402.2	179.3	144.5	128.8	116.6	111.4	111.4
25°	1176.9	1140.4	1044.6	692.9	255.9	144.5	123.6	107.9	95.7	88.8	90.5
27.5°	1248.3	1201.4	1067.2	560.6	165.4	125.3	102.7	87.1	76.6	73.1	73.1
30°	1323.2	1267.4	1072.5	419.6	134.1	107.9	85.3	71.4	64.4	61.0	61.0
32.5°	1425.9	1352.8	1056.8	278.5	113.1	90.5	71.4	59.2	54.0	52.3	52.3
35°	1561.7	1464.3	1020.3	172.4	95.7	74.9	59.2	52.3	47.1	45.3	45.3
37.5°	1734.1	1619.1	955.8	118.4	81.8	61.0	50.5	45.3	41.7	40.0	40.0
40°	1963.9	1807.1	872.3	102.7	69.7	52.3	43.5	40.0	36.5	36.5	36.5
42.5°	2207.6	2035.3	764.3	90.5	59.2	45.3	38.3	34.8	33.0	31.3	31.3
45°	2474.0	2268.6	630.2	80.1	50.5	40.0	34.8	29.6	27.8	27.8	27.8
47.5°	2738.6	2508.8	484.0	69.7	43.5	34.8	29.6	26.1	24.3	22.6	22.6
50°	3010.2	2726.5	355.2	61.0	38.3	31.3	26.1	22.6	19.1	17.4	17.4
52.5°	3207.0	2857.0	259.4	52.3	33.0	26.1	20.9	17.4	13.9	12.2	12.2
55°	3351.5	2937.1	189.8	43.5	29.6	22.6	17.4	13.9	10.4	10.4	8.7
57.5°	3464.6	2975.5	142.8	38.3	26.1	19.1	13.9	10.4	8.7	7.0	7.0
60°	3551.7	2977.2	106.2	31.3	22.6	15.7	10.4	7.0	5.2	5.2	5.2
62°	3666.7	2999.8	87.1	26.1	20.9	13.9	8.7	5.2	3.5	1.7	1.7
62.5°	3699.7	3008.5	83.6	26.1	19.1	12.2	7.0	5.2	3.5	1.7	1.7
65°	3852.9	3024.1	64.4	20.9	15.7	10.4	5.2	3.5	0.0	0.0	0.0
67.5°	3992.2	2999.8	47.1	15.7	12.2	7.0	5.2	1.7	0.0	0.0	0.0
70°	3978.3	2832.7	33.0	10.4	8.7	5.2	3.5	0.0	0.0	0.0	0.0
72.5°	3278.4	2120.6	22.6	8.7	5.2	3.5	1.7	0.0	0.0	0.0	0.0
75°	1979.5	928.0	15.7	5.2	5.2	3.5	1.7	0.0	0.0	0.0	0.0
77.5°	649.4	336.0	10.4	3.5	3.5	1.7	1.7	0.0	0.0	0.0	0.0
80°	106.2	55.8	5.2	3.5	3.5	1.7	1.7	0.0	0.0	0.0	0.0
82.5°	33.0	13.9	3.5	3.5	1.7	1.7	0.0	0.0	0.0	0.0	0.0
85°	12.2	5.2	3.5	3.5	1.7	1.7	0.0	0.0	0.0	0.0	0.0
87.5°	5.2	3.5	3.5	3.5	1.7	1.7	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)