

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: P231221

Luminaire Tested: **ARCH-M-AF48-70-D-U-T3-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231221
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29624)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-70-D-U-T3-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 470mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7646.6 lumens
Efficiency: N/A
Efficacy: 104.7 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type III - Medium - Semi-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

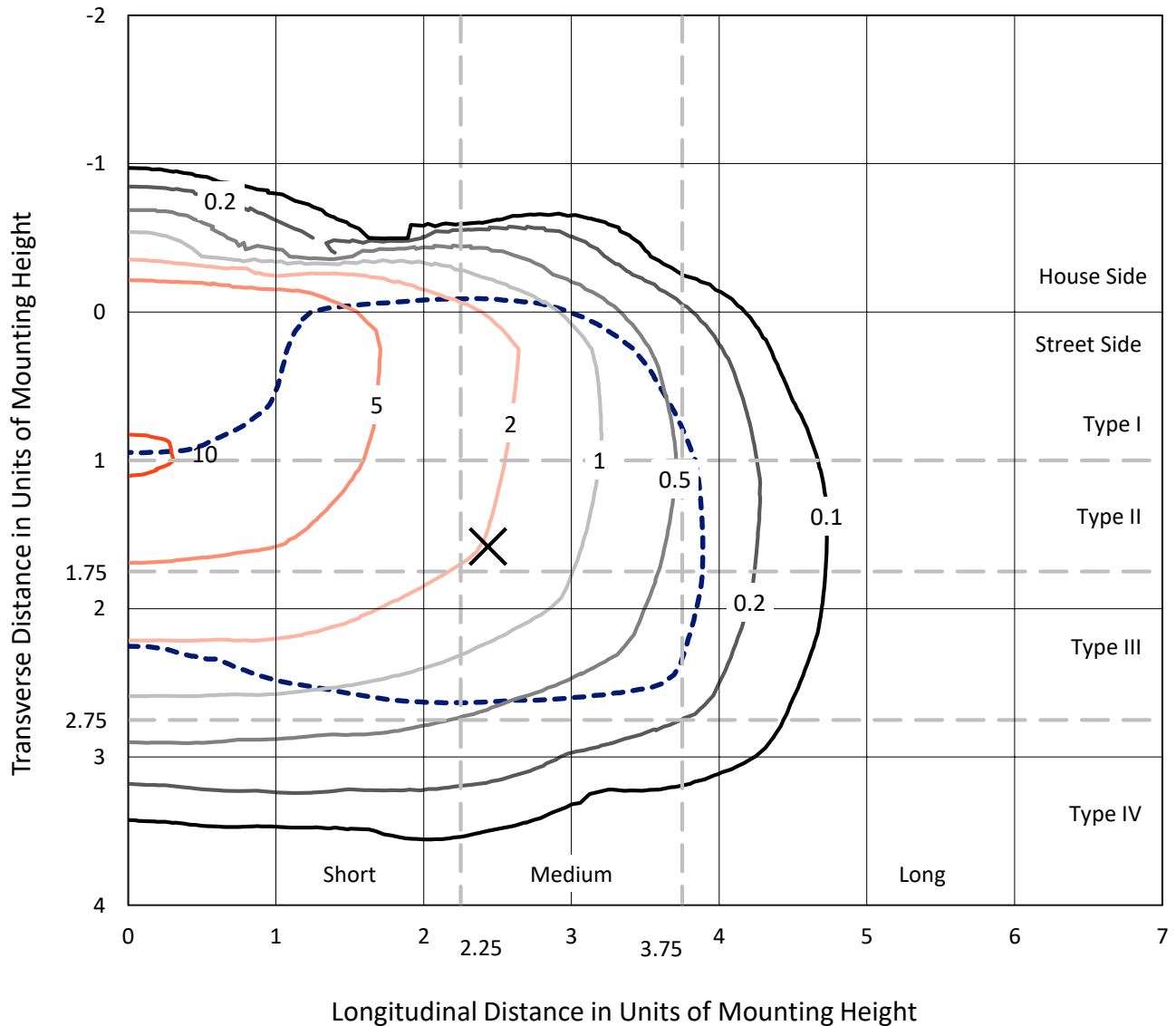


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

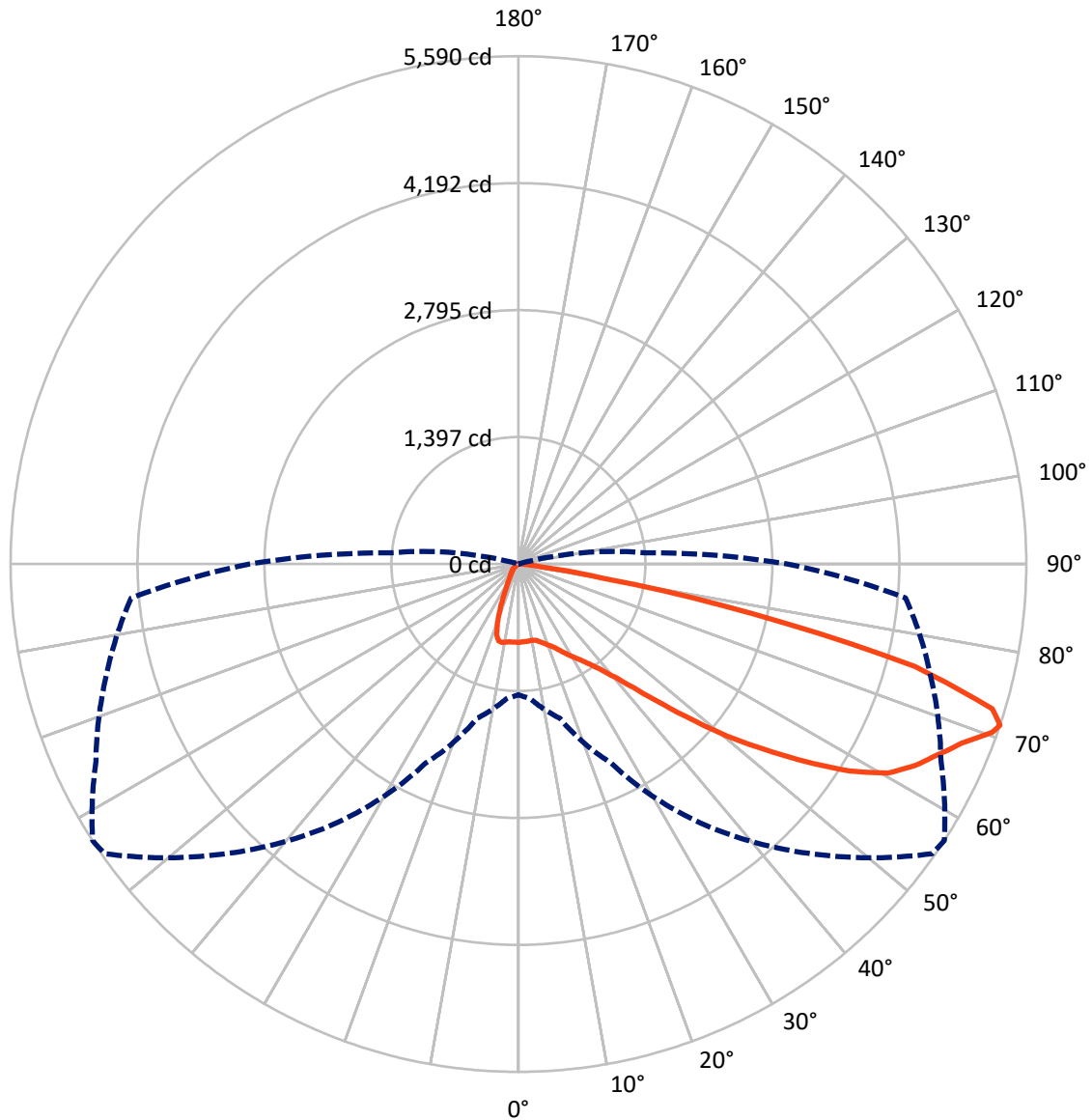


Based on 10 foot mounting height. Maximum calculated value = 10.7 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral - - - Horizontal Cone Through 71-Deg Vertical

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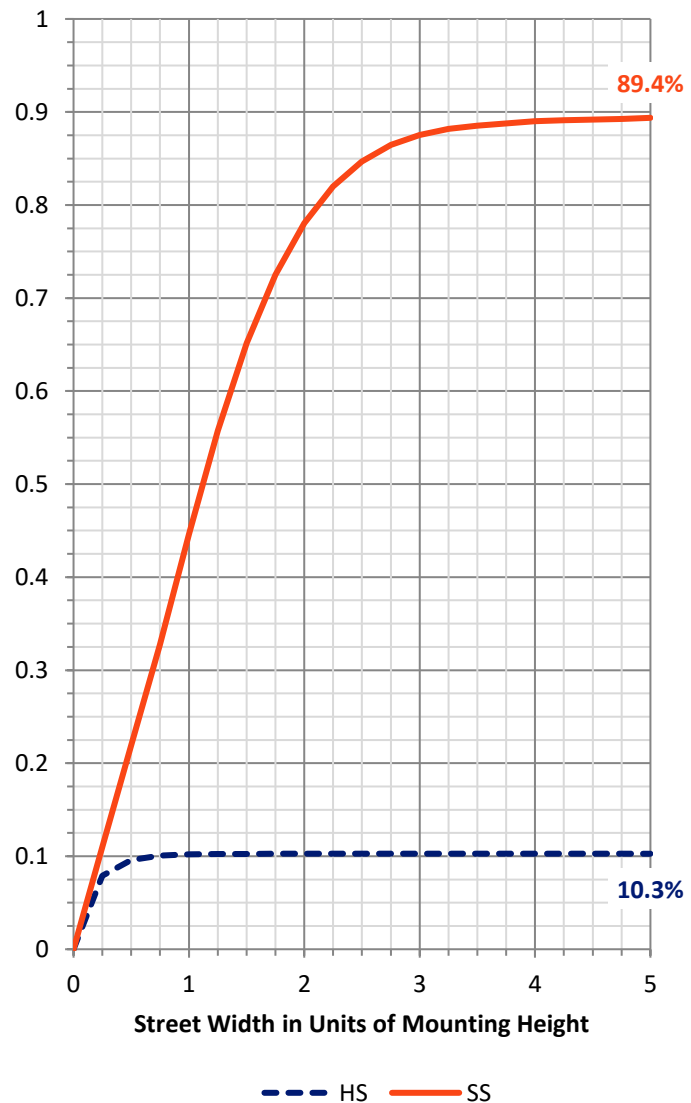
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	792.4	0.0	792.4
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	6854.1	0.0	6854.1
	% Fixture	89.6	0.0	89.6
Total	Lumens	7646.6	0.0	7646.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.2	1.1
10°-20°	217.0	2.8
20°-30°	338.5	4.4
30°-40°	572.1	7.5
40°-50°	1111.3	14.5
50°-60°	1866.1	24.4
60°-70°	2227.0	29.1
70°-80°	1173.7	15.3
80°-90°	59.6	0.8
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°	7646.6	100.0
0°-180°	7646.6	100.0



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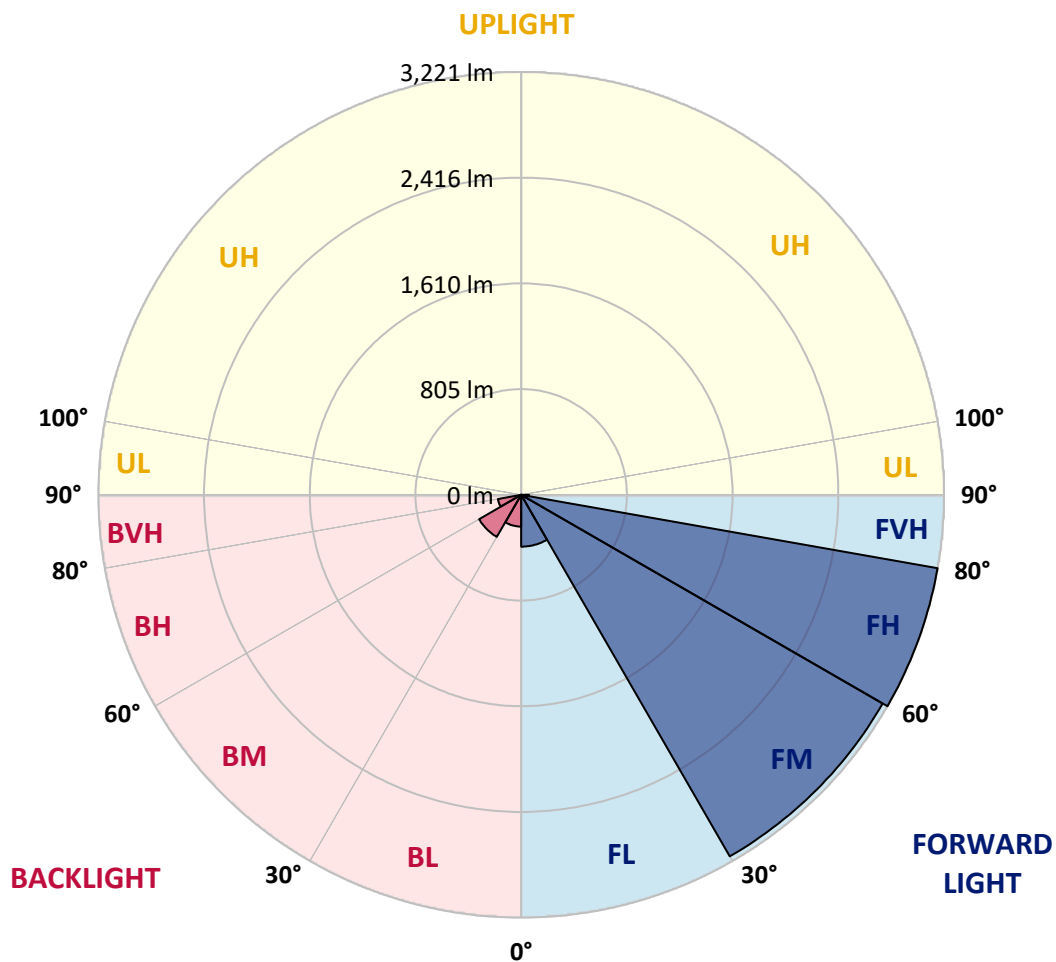
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	394.8	5.2			
FM	(30°-60°)	3179.5	41.6			
FH	(60°-80°)	3220.8	42.1			G2/5000
FVH	(80°-90°)	59.1	0.8			G1/100
BL	(0°-30°)	241.9	3.2	B1/500		
BM	(30°-60°)	370.0	4.8	B1/1000		
BH	(60°-80°)	179.9	2.4	B1/500		G1/500
BVH	(80°-90°)	0.6	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 III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	864.2	864.2	864.2	864.2	864.2	864.2	864.2	864.2	864.2	864.2	864.2
2.5°	851.7	851.7	851.7	853.4	855.3	855.3	858.9	857.0	857.0	857.0	860.6
5°	828.6	830.3	832.1	835.6	842.8	848.1	857.0	857.0	858.9	862.3	864.2
7.5°	796.5	798.2	803.6	810.7	825.0	837.5	851.7	855.3	860.6	869.5	873.1
10°	776.8	780.4	787.6	796.5	812.5	828.6	846.4	851.7	867.8	883.7	892.7
12.5°	771.5	773.4	780.4	794.7	814.3	833.9	857.0	862.3	885.6	910.5	924.7
15°	780.4	782.3	785.7	801.8	825.0	850.0	880.2	887.3	915.8	944.4	962.2
17.5°	796.5	796.5	800.0	814.3	839.2	867.8	906.9	917.6	949.7	981.7	1001.4
20°	807.1	807.1	812.5	826.7	855.3	892.7	939.0	953.3	988.9	1024.6	1042.4
22.5°	817.8	819.6	825.0	841.0	873.1	924.7	978.2	992.5	1033.5	1070.8	1088.7
25°	848.1	846.4	848.1	862.3	899.8	963.9	1031.6	1049.4	1092.2	1133.2	1142.1
27.5°	931.9	928.3	905.2	896.2	924.7	1004.9	1099.4	1117.2	1167.1	1208.1	1208.1
30°	1124.3	1117.2	1060.2	987.1	963.9	1042.4	1163.5	1188.5	1252.6	1288.2	1277.6
32.5°	1368.4	1352.4	1279.3	1154.6	1061.9	1092.2	1231.2	1259.8	1341.7	1372.0	1348.9
35°	1635.7	1634.0	1543.0	1382.7	1250.9	1195.6	1318.6	1352.4	1455.8	1482.5	1445.0
37.5°	1919.1	1926.1	1865.6	1644.6	1489.6	1364.8	1434.4	1473.6	1600.1	1632.1	1596.5
40°	2234.4	2232.6	2209.5	1947.5	1776.5	1605.4	1601.8	1637.4	1790.7	1840.6	1790.7
42.5°	2633.5	2629.9	2546.2	2311.1	2124.0	1919.1	1845.9	1858.4	2029.4	2111.5	2038.4
45°	3039.8	3014.8	2918.6	2715.5	2549.8	2307.5	2168.5	2168.5	2314.5	2426.8	2312.8
47.5°	3266.1	3241.1	3201.9	3089.6	3039.8	2768.9	2564.0	2539.1	2653.1	2767.2	2606.8
50°	3563.7	3563.7	3465.7	3422.9	3508.4	3317.7	3000.5	2975.7	3030.9	3121.7	2911.5
52.5°	3798.8	3756.1	3686.5	3724.0	3968.1	3880.8	3437.1	3389.0	3431.8	3454.9	3177.0
55°	3896.8	3855.8	3850.5	3987.7	4365.4	4244.2	3884.3	3841.6	3838.0	3724.0	3408.6
57.5°	3916.4	3880.8	3948.5	4189.0	4752.1	4541.8	4329.8	4297.7	4198.0	3912.9	3645.6
60°	3750.8	3768.6	3932.4	4299.5	4980.1	4800.2	4705.8	4671.9	4442.1	4073.2	3909.3
62.5°	3410.4	3453.2	3759.7	4310.2	4896.5	4905.4	4914.3	4891.0	4630.9	4219.4	4174.8
65°	3007.7	3020.2	3389.0	4162.3	4750.3	4873.2	5067.5	5065.7	4775.2	4383.2	4474.1
67.5°	2478.5	2499.9	2818.8	3663.4	4458.1	4859.0	5268.8	5263.5	4939.2	4570.3	4652.3
70°	1844.2	1870.9	2129.3	2849.1	3806.0	4680.8	5532.5	5536.1	5112.0	4712.8	4529.3
71°	1438.0	1486.0	1756.8	2419.7	3472.7	4500.9	5557.5	5589.5	5131.6	4693.3	4276.3
72.5°	705.6	762.6	1102.9	1703.4	2858.0	4098.1	5393.5	5455.9	5008.7	4449.2	3656.2
75°	183.5	194.3	329.6	696.7	1532.4	2715.5	4349.4	4507.9	4094.6	3387.2	2234.4
77.5°	115.8	119.4	155.0	270.9	573.8	1031.6	2555.1	2633.5	2339.5	1715.9	787.6
80°	81.9	83.8	98.0	174.6	335.0	301.2	919.4	953.3	846.4	454.4	140.8
82.5°	49.9	49.9	71.3	112.2	206.7	163.9	242.3	258.4	228.1	126.5	46.3
85°	28.5	30.3	44.5	76.6	98.0	80.2	90.8	96.3	98.0	83.8	19.6
87.5°	23.1	25.0	39.2	64.1	53.5	39.2	39.2	41.0	42.8	49.9	8.9
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°	864.2	864.2	864.2	864.2	864.2	864.2	864.2	864.2	864.2	864.2	864.2
2.5°	860.6	860.6	862.3	860.6	860.6	860.6	862.3	862.3	862.3	865.9	867.8
5°	864.2	864.2	864.2	862.3	860.6	860.6	864.2	865.9	865.9	871.3	871.3
7.5°	873.1	873.1	869.5	865.9	862.3	857.0	858.9	860.6	858.9	860.6	860.6
10°	892.7	892.7	887.3	880.2	869.5	853.4	832.1	805.4	780.4	771.5	767.9
12.5°	924.7	923.0	912.3	899.8	876.7	821.4	741.2	646.8	568.4	547.0	539.9
15°	960.3	956.9	944.4	923.0	860.6	714.5	547.0	425.9	351.0	333.2	329.6
17.5°	997.8	992.5	974.7	931.9	787.6	531.0	352.8	267.3	226.3	222.7	224.5
20°	1037.0	1029.9	1004.9	914.1	636.1	354.6	228.1	206.7	203.2	203.2	204.9
22.5°	1081.6	1072.7	1038.8	850.0	463.3	235.2	196.0	194.3	192.4	190.7	190.7
25°	1133.2	1122.6	1070.8	734.1	319.0	192.4	187.1	181.8	178.2	174.6	172.9
27.5°	1195.6	1181.3	1095.8	591.6	219.1	179.9	176.4	167.5	160.4	153.2	153.2
30°	1257.9	1240.1	1088.7	445.5	178.2	167.5	160.4	149.7	139.0	131.9	130.1
32.5°	1323.9	1306.1	1042.4	299.3	162.1	153.2	144.3	128.3	115.8	106.9	105.2
35°	1421.9	1407.6	951.4	197.7	146.1	135.4	123.0	106.9	90.8	81.9	80.2
37.5°	1568.0	1550.2	839.2	151.5	128.3	112.2	101.6	83.8	67.7	58.8	57.0
40°	1764.0	1710.6	705.6	133.6	112.2	92.7	78.4	60.6	48.1	42.8	42.8
42.5°	1992.1	1865.6	561.3	121.1	99.7	76.6	57.0	41.0	33.9	32.1	32.1
45°	2234.4	2009.9	417.0	112.2	87.3	60.6	41.0	28.5	25.0	23.1	23.1
47.5°	2483.8	2127.4	290.4	101.6	73.0	46.3	28.5	21.4	17.8	16.1	16.1
50°	2717.3	2204.0	204.9	90.8	62.4	33.9	21.4	16.1	12.5	12.5	12.5
52.5°	2879.4	2197.0	147.9	78.4	48.1	23.1	14.2	10.7	10.7	10.7	10.7
55°	3021.9	2170.3	115.8	67.7	37.4	16.1	10.7	8.9	8.9	7.2	7.2
57.5°	3143.1	2127.4	98.0	55.2	26.7	12.5	7.2	7.2	5.3	5.3	5.3
60°	3246.4	2074.0	81.9	46.3	17.8	8.9	5.3	3.6	3.6	1.7	3.6
62.5°	3387.2	2040.2	71.3	35.6	12.5	5.3	3.6	1.7	1.7	0.0	0.0
65°	3490.5	1976.0	60.6	25.0	7.2	3.6	1.7	1.7	0.0	0.0	0.0
67.5°	3494.1	1860.2	44.5	14.2	5.3	3.6	1.7	0.0	0.0	0.0	0.0
70°	3212.6	1585.8	28.5	7.2	3.6	1.7	1.7	0.0	0.0	0.0	0.0
71°	2954.3	1404.1	23.1	5.3	3.6	1.7	0.0	0.0	0.0	0.0	0.0
72.5°	2433.9	1031.6	17.8	5.3	1.7	1.7	0.0	0.0	0.0	0.0	0.0
75°	1341.7	374.2	8.9	3.6	1.7	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	429.4	114.1	5.3	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	73.0	17.8	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	25.0	7.2	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	7.2	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.6	1.7	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)