

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: P231208

Luminaire Tested: **ARCH-M-AF48-70-D-U-T3-7030-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231208  
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-T3-7030-HSS  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 3000K, 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: 6617 lumens  
Efficiency: N/A  
Efficacy: 90.6 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

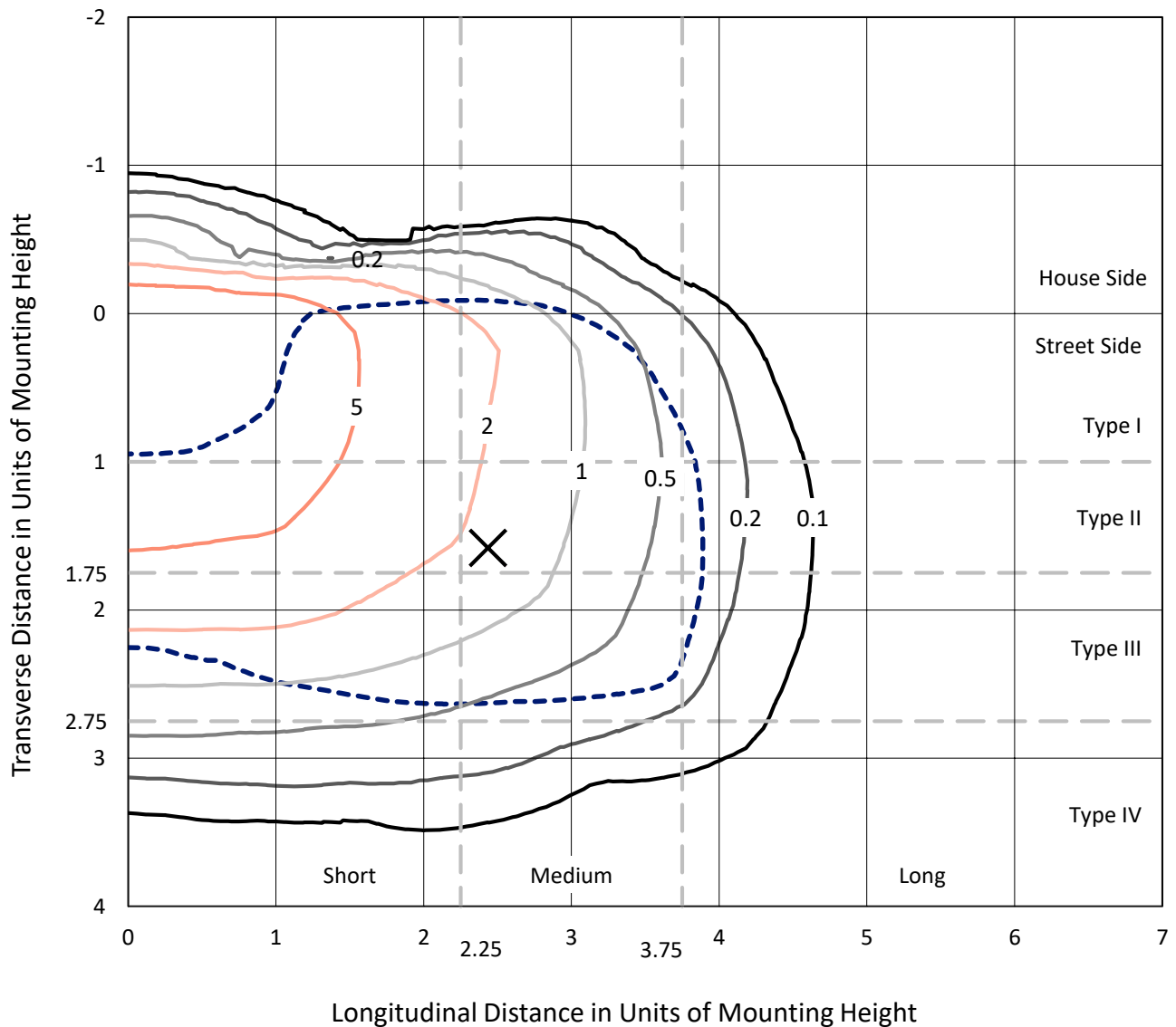


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

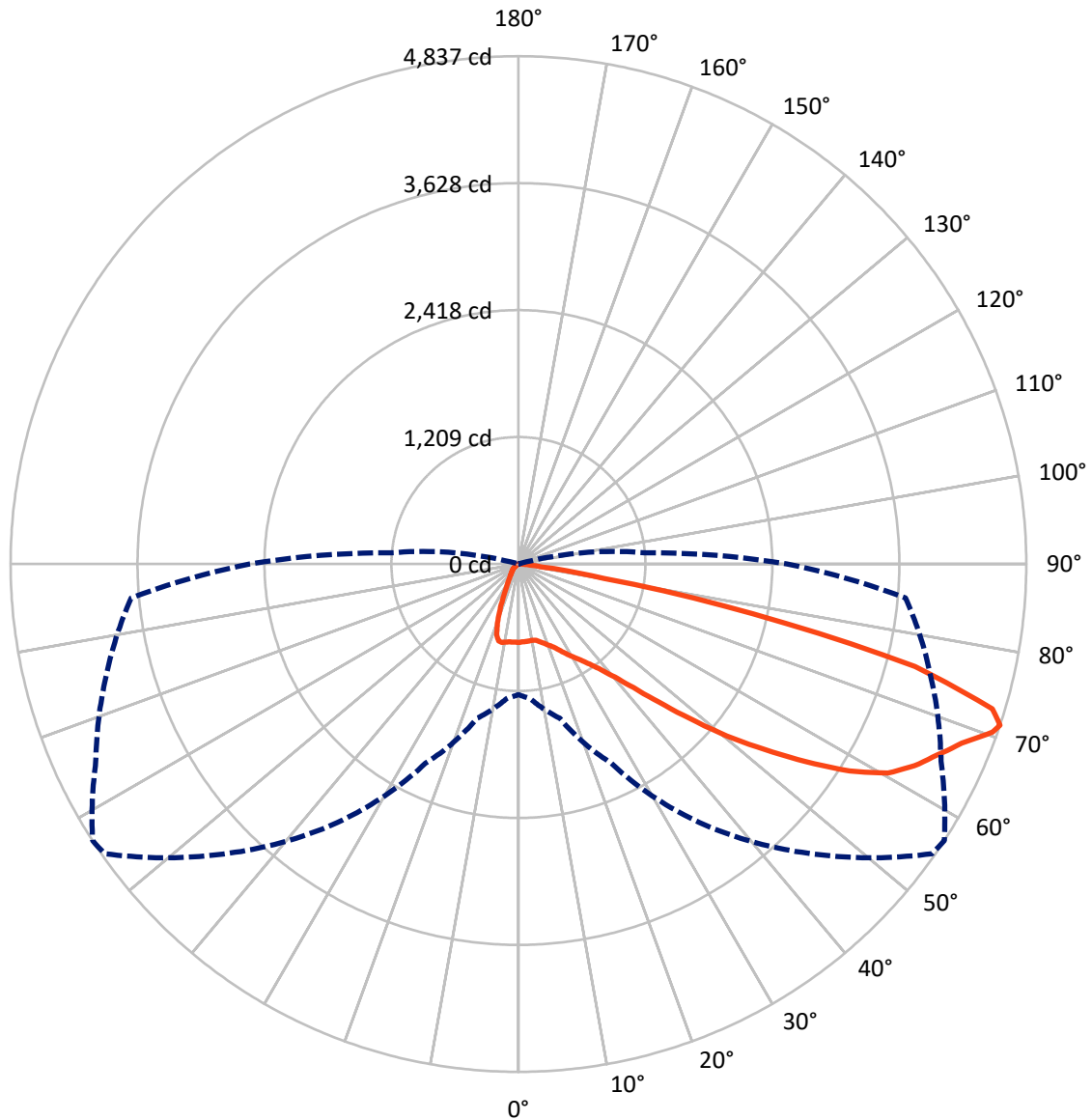


Based on 10 foot mounting height. Maximum calculated value = 9.3 fc  
 Type III - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



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

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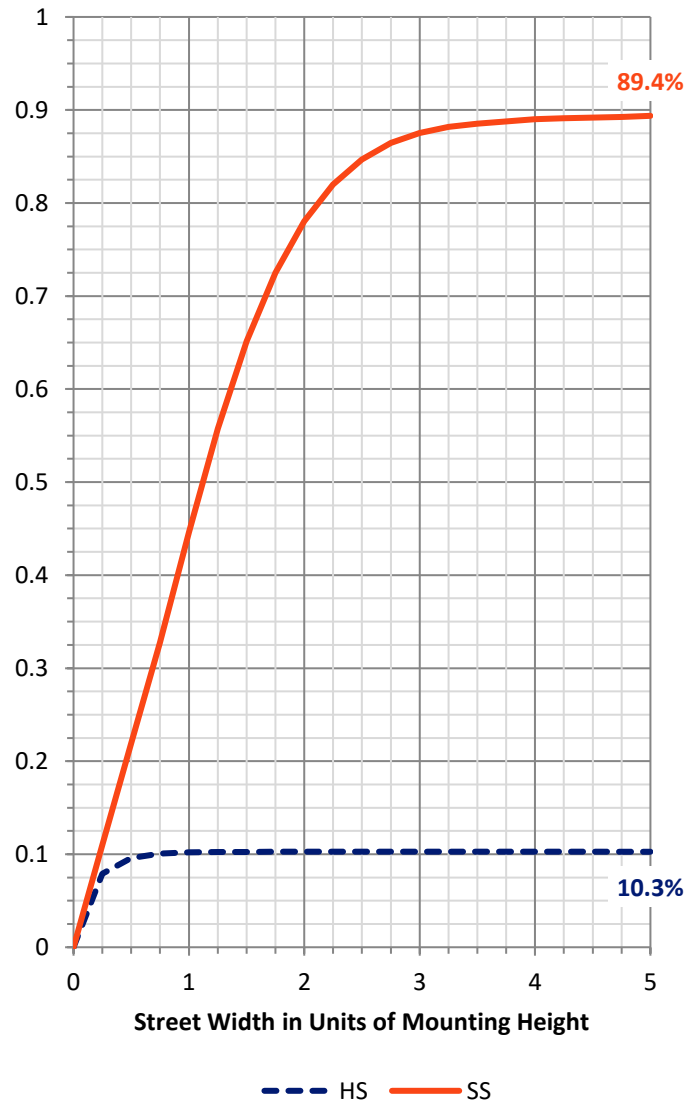
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	685.7	0.0	685.7
	% Fixture	10.4	0.0	10.4
<b>Street Side</b>	Lumens	5931.3	0.0	5931.3
	% Fixture	89.6	0.0	89.6
<b>Total</b>	Lumens	6617.0	0.0	6617.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	70.2	1.1
10°-20°	187.8	2.8
20°-30°	292.9	4.4
30°-40°	495.1	7.5
40°-50°	961.6	14.5
50°-60°	1614.9	24.4
60°-70°	1927.2	29.1
70°-80°	1015.7	15.3
80°-90°	51.6	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°	6617.0	100.0
0°-180°	6617.0	100.0

**Coefficient of Utilization**



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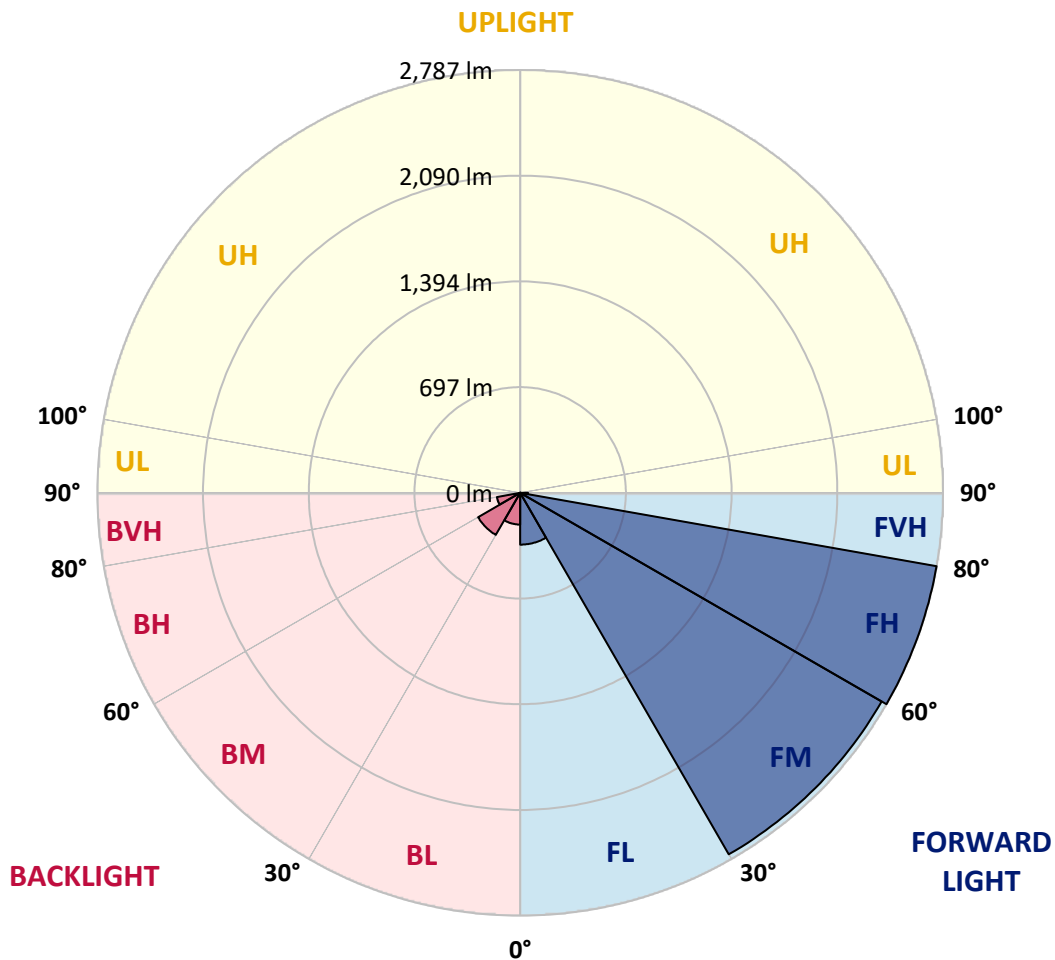
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	341.6	5.2			
FM	(30°-60°)	2751.4	41.6			
FH	(60°-80°)	2787.1	42.1			G2/5000
FVH	(80°-90°)	51.1	0.8			G1/100
BL	(0°-30°)	209.3	3.2	B1/500		
BM	(30°-60°)	320.2	4.8	B1/1000		
BH	(60°-80°)	155.7	2.4	B1/500		G1/500
BVH	(80°-90°)	0.5	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°	747.8	747.8	747.8	747.8	747.8	747.8	747.8	747.8	747.8	747.8	747.8
2.5°	737.0	737.0	737.0	738.6	740.1	740.1	743.2	741.7	741.7	741.7	744.7
5°	717.0	718.5	720.1	723.2	729.3	733.9	741.7	741.7	743.2	746.3	747.8
7.5°	689.2	690.8	695.4	701.6	713.9	724.7	737.0	740.1	744.7	752.4	755.5
10°	672.3	675.4	681.5	689.2	703.1	717.0	732.4	737.0	750.9	764.8	772.5
12.5°	667.6	669.2	675.4	687.7	704.6	721.6	741.7	746.3	766.3	787.9	800.2
15°	675.4	676.9	680.0	693.9	713.9	735.5	761.7	767.9	792.5	817.2	832.6
17.5°	689.2	689.2	692.3	704.6	726.2	750.9	784.8	794.1	821.8	849.6	866.5
20°	698.5	698.5	703.1	715.4	740.1	772.5	812.6	824.9	855.8	886.6	902.0
22.5°	707.7	709.3	713.9	727.8	755.5	800.2	846.5	858.8	894.3	926.7	942.1
25°	733.9	732.4	733.9	746.3	778.7	834.2	892.8	908.2	945.2	980.6	988.4
27.5°	806.4	803.3	783.3	775.6	800.2	869.6	951.4	966.8	1009.9	1045.4	1045.4
30°	972.9	966.8	917.4	854.2	834.2	902.0	1006.9	1028.4	1084.0	1114.8	1105.5
32.5°	1184.2	1170.3	1107.1	999.2	919.0	945.2	1065.5	1090.1	1161.1	1187.3	1167.2
35°	1415.5	1413.9	1335.3	1196.5	1082.4	1034.6	1141.0	1170.3	1259.7	1282.9	1250.5
37.5°	1660.6	1666.8	1614.4	1423.2	1289.0	1181.1	1241.2	1275.2	1384.6	1412.4	1381.5
40°	1933.5	1932.0	1912.0	1685.3	1537.3	1389.3	1386.2	1417.0	1549.6	1592.8	1549.6
42.5°	2278.9	2275.8	2203.4	1999.8	1837.9	1660.6	1597.4	1608.2	1756.2	1827.2	1763.9
45°	2630.5	2608.9	2525.6	2349.9	2206.5	1996.8	1876.5	1876.5	2002.9	2100.1	2001.4
47.5°	2826.3	2804.7	2770.8	2673.7	2630.5	2396.1	2218.8	2197.2	2295.9	2394.6	2255.8
50°	3083.8	3083.8	2999.0	2962.0	3036.0	2871.0	2596.6	2575.0	2622.8	2701.4	2519.5
52.5°	3287.3	3250.3	3190.2	3222.6	3433.8	3358.3	2974.3	2932.7	2969.7	2989.7	2749.2
55°	3372.1	3336.7	3332.0	3450.8	3777.7	3672.8	3361.3	3324.3	3321.3	3222.6	2949.7
57.5°	3389.1	3358.3	3416.8	3625.0	4112.2	3930.3	3746.8	3719.1	3632.7	3386.0	3154.7
60°	3245.7	3261.1	3403.0	3720.6	4309.6	4153.9	4072.2	4042.9	3844.0	3524.8	3382.9
62.5°	2951.2	2988.2	3253.4	3729.9	4237.1	4244.8	4252.6	4232.5	4007.4	3651.2	3612.7
65°	2602.7	2613.5	2932.7	3601.9	4110.7	4217.1	4385.2	4383.6	4132.3	3793.1	3871.7
67.5°	2144.8	2163.3	2439.3	3170.1	3857.8	4204.8	4559.4	4554.8	4274.1	3955.0	4025.9
70°	1595.9	1619.0	1842.6	2465.5	3293.5	4050.6	4787.6	4790.7	4423.7	4078.3	3919.5
71°	1244.3	1285.9	1520.3	2093.9	3005.2	3894.8	4809.2	4836.9	4440.7	4061.4	3700.6
72.5°	610.6	659.9	954.4	1474.1	2473.2	3546.4	4667.3	4721.3	4334.3	3850.1	3164.0
75°	158.8	168.1	285.3	602.9	1326.0	2349.9	3763.8	3901.0	3543.3	2931.2	1933.5
77.5°	100.2	103.3	134.1	234.4	496.5	892.8	2211.1	2278.9	2024.5	1484.8	681.5
80°	70.9	72.5	84.8	151.1	289.9	260.6	795.6	824.9	732.4	393.2	121.8
82.5°	43.2	43.2	61.7	97.1	178.9	141.9	209.7	223.6	197.4	109.5	40.1
85°	24.7	26.2	38.5	66.3	84.8	69.4	78.6	83.3	84.8	72.5	17.0
87.5°	20.0	21.6	33.9	55.5	46.3	33.9	33.9	35.5	37.0	43.2	7.7
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°	747.8	747.8	747.8	747.8	747.8	747.8	747.8	747.8	747.8	747.8	747.8
2.5°	744.7	744.7	746.3	744.7	744.7	744.7	746.3	746.3	746.3	749.4	750.9
5°	747.8	747.8	747.8	746.3	744.7	744.7	747.8	749.4	749.4	754.0	754.0
7.5°	755.5	755.5	752.4	749.4	746.3	741.7	743.2	744.7	743.2	744.7	744.7
10°	772.5	772.5	767.9	761.7	752.4	738.6	720.1	696.9	675.4	667.6	664.6
12.5°	800.2	798.7	789.5	778.7	758.6	710.8	641.4	559.7	491.9	473.4	467.2
15°	831.1	828.0	817.2	798.7	744.7	618.3	473.4	368.5	303.8	288.3	285.3
17.5°	863.5	858.8	843.4	806.4	681.5	459.5	305.3	231.3	195.8	192.7	194.3
20°	897.4	891.2	869.6	791.0	550.5	306.8	197.4	178.9	175.8	175.8	177.3
22.5°	935.9	928.2	898.9	735.5	400.9	203.5	169.6	168.1	166.5	165.0	165.0
25°	980.6	971.4	926.7	635.3	276.0	166.5	161.9	157.3	154.2	151.1	149.6
27.5°	1034.6	1022.3	948.3	511.9	189.7	155.7	152.6	144.9	138.8	132.6	132.6
30°	1088.6	1073.2	942.1	385.5	154.2	144.9	138.8	129.5	120.3	114.1	112.6
32.5°	1145.6	1130.2	902.0	259.0	140.3	132.6	124.9	111.0	100.2	92.5	91.0
35°	1230.4	1218.1	823.4	171.2	126.4	117.2	106.4	92.5	78.6	70.9	69.4
37.5°	1356.9	1341.5	726.2	131.1	111.0	97.1	87.9	72.5	58.6	50.9	49.3
40°	1526.5	1480.2	610.6	115.6	97.1	80.2	67.8	52.4	41.6	37.0	37.0
42.5°	1723.8	1614.4	485.7	104.8	86.3	66.3	49.3	35.5	29.3	27.8	27.8
45°	1933.5	1739.3	360.8	97.1	75.6	52.4	35.5	24.7	21.6	20.0	20.0
47.5°	2149.4	1841.0	251.3	87.9	63.2	40.1	24.7	18.5	15.4	13.9	13.9
50°	2351.4	1907.3	177.3	78.6	54.0	29.3	18.5	13.9	10.8	10.8	10.8
52.5°	2491.7	1901.2	128.0	67.8	41.6	20.0	12.3	9.3	9.3	9.3	9.3
55°	2615.1	1878.0	100.2	58.6	32.4	13.9	9.3	7.7	7.7	6.2	6.2
57.5°	2719.9	1841.0	84.8	47.8	23.1	10.8	6.2	6.2	4.6	4.6	4.6
60°	2809.3	1794.8	70.9	40.1	15.4	7.7	4.6	3.1	3.1	1.5	3.1
62.5°	2931.2	1765.5	61.7	30.8	10.8	4.6	3.1	1.5	1.5	0.0	0.0
65°	3020.6	1710.0	52.4	21.6	6.2	3.1	1.5	1.5	0.0	0.0	0.0
67.5°	3023.7	1609.7	38.5	12.3	4.6	3.1	1.5	0.0	0.0	0.0	0.0
70°	2780.0	1372.3	24.7	6.2	3.1	1.5	1.5	0.0	0.0	0.0	0.0
71°	2556.5	1215.0	20.0	4.6	3.1	1.5	0.0	0.0	0.0	0.0	0.0
72.5°	2106.2	892.8	15.4	4.6	1.5	1.5	0.0	0.0	0.0	0.0	0.0
75°	1161.1	323.8	7.7	3.1	1.5	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	371.6	98.7	4.6	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	63.2	15.4	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	21.6	6.2	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	6.2	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.1	1.5	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)