

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: P257848

Luminaire Tested: **ARCH-M-AF48-60-D-U-T2U-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P257848  
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-AF48-60-D-U-T2U-HSS  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 4000K, 405mA 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: 6213.4 lumens  
Efficiency: N/A  
Efficacy: 98.6 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 - G1

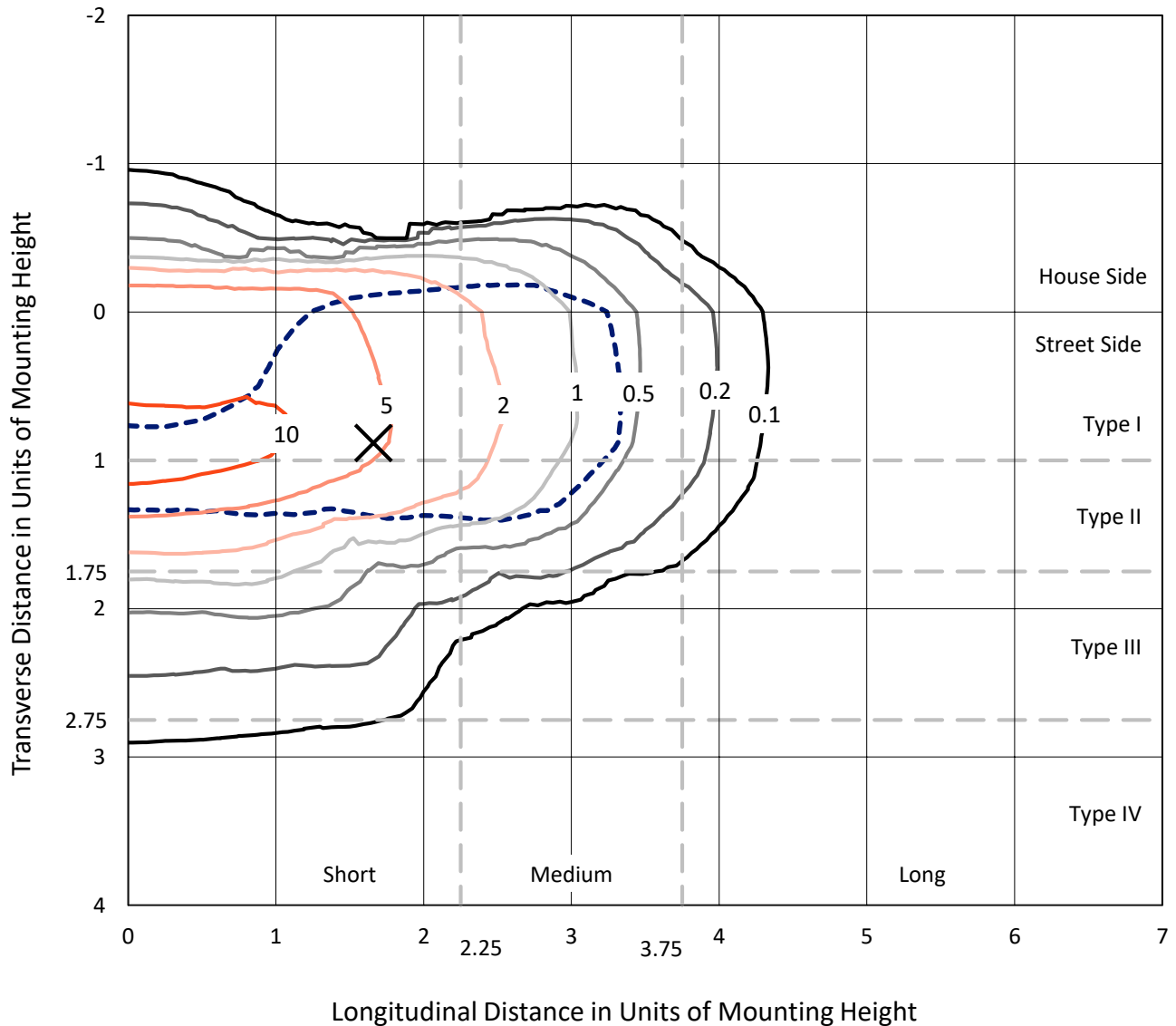
Input Watts (W): 63  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

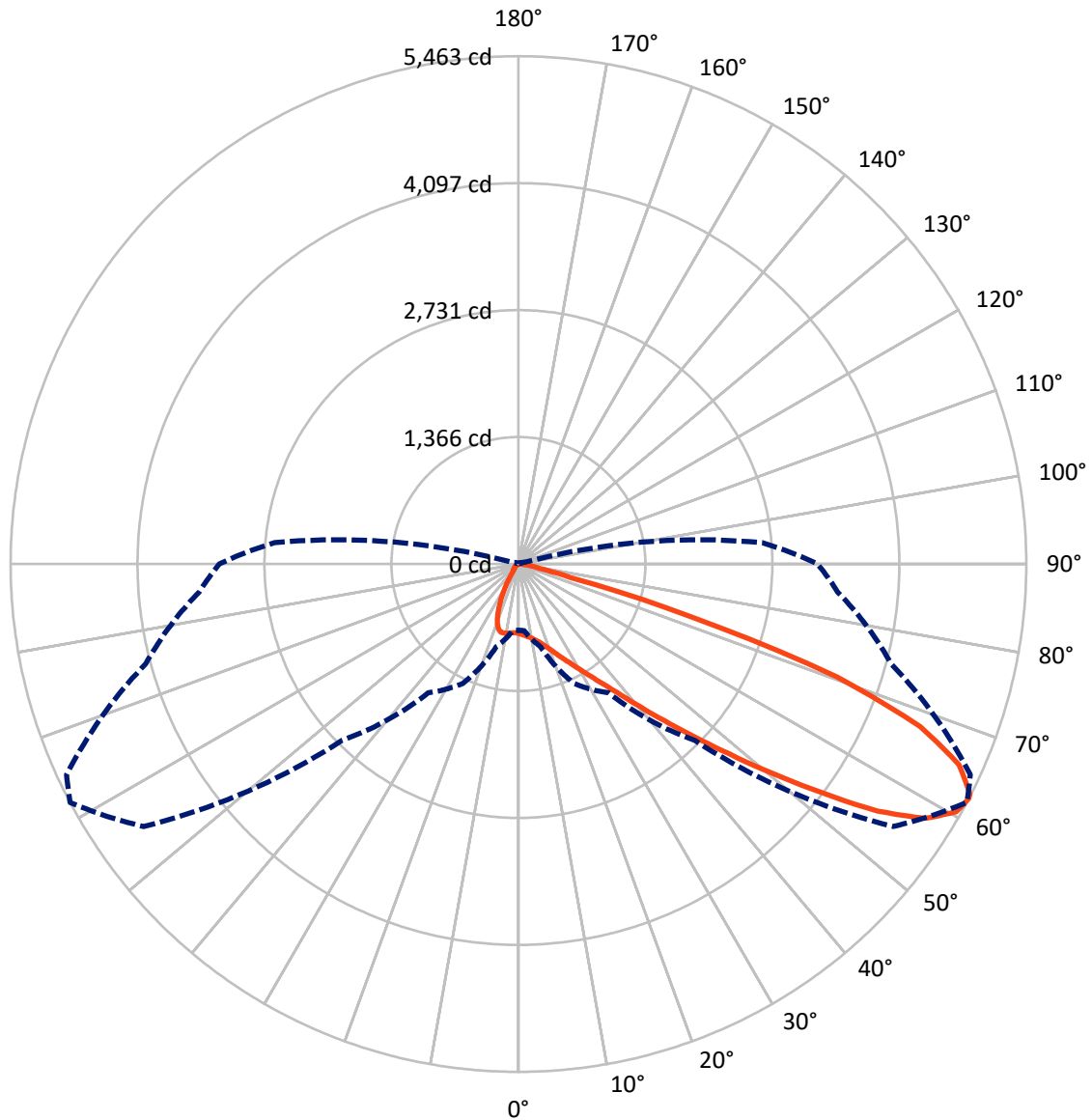
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 14.3 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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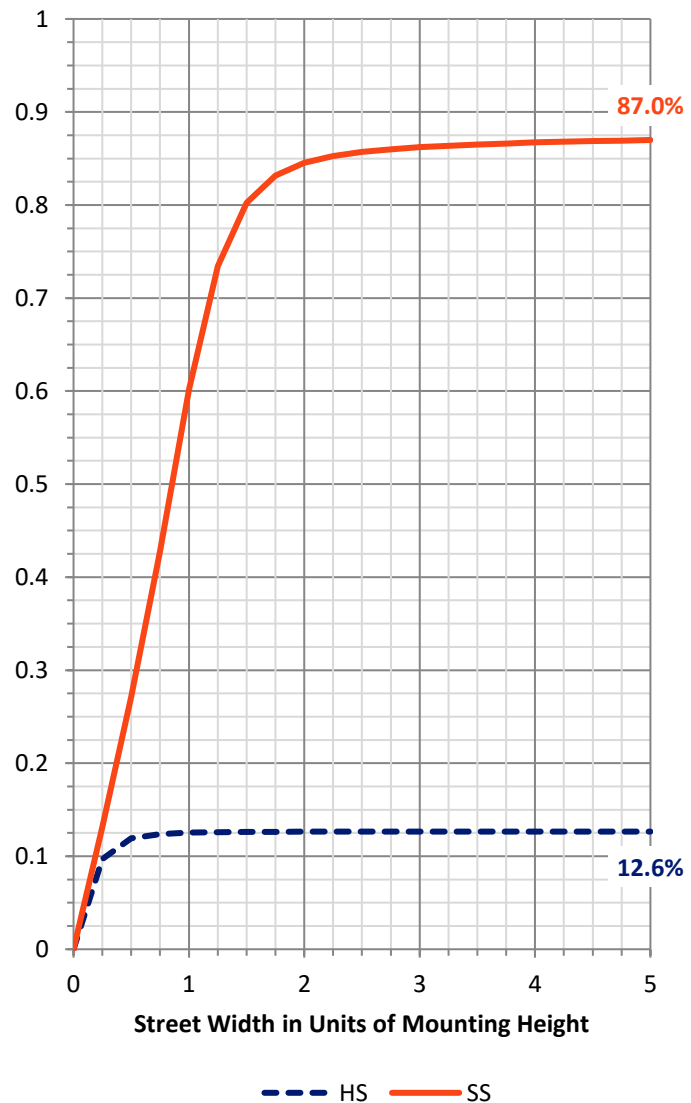
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	794.5	0.0	794.5
	% Fixture	12.8	0.0	12.8
<b>Street Side</b>	Lumens	5418.9	0.0	5418.9
	% Fixture	87.2	0.0	87.2
<b>Total</b>	Lumens	6213.4	0.0	6213.4
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.0	1.2
10°-20°	201.1	3.2
20°-30°	337.8	5.4
30°-40°	647.6	10.4
40°-50°	1322.7	21.3
50°-60°	1750.4	28.2
60°-70°	1359.7	21.9
70°-80°	490.8	7.9
80°-90°	31.3	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°	6213.4	100.0
0°-180°	6213.4	100.0

**Coefficient of Utilization**



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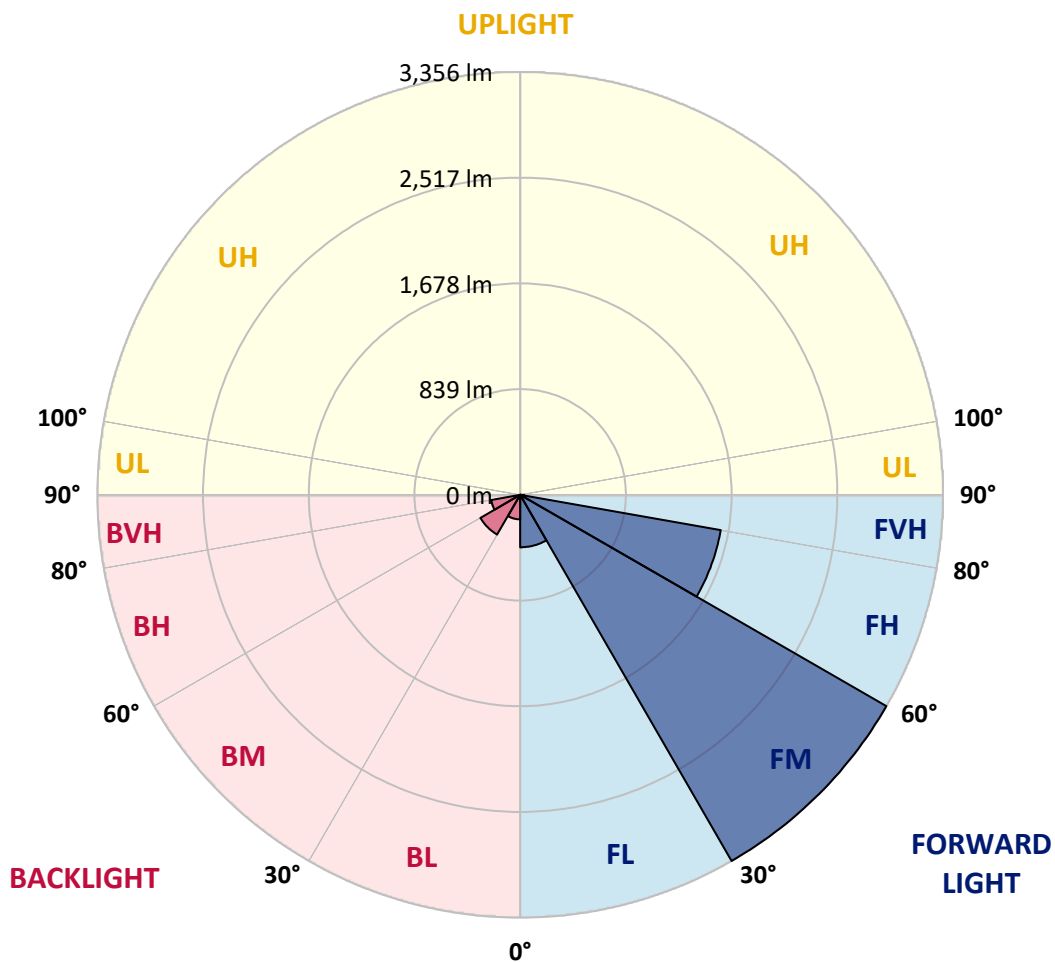
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	416.6	6.7			
FM	(30°-60°)	3355.9	54.0			
FH	(60°-80°)	1616.6	26.0			G1/1800
FVH	(80°-90°)	29.9	0.5			G1/100
BL	(0°-30°)	194.4	3.1	B1/500		
BM	(30°-60°)	364.7	5.9	B1/1000		
BH	(60°-80°)	233.9	3.8	B1/500		G1/500
BVH	(80°-90°)	1.4	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-G1**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	62°	65°	75°	85°
0°	748.5	748.5	748.5	748.5	748.5	748.5	748.5	748.5	748.5	748.5	748.5
2.5°	768.3	766.8	765.3	763.7	763.7	762.2	760.7	757.7	754.6	751.6	750.0
5°	782.0	780.6	779.1	780.6	779.1	779.1	777.5	774.5	771.4	766.8	762.2
7.5°	792.8	791.3	789.7	791.3	792.8	794.3	795.9	792.8	791.3	785.1	780.6
10°	806.5	805.0	803.4	806.5	806.5	814.2	815.7	814.2	812.6	808.0	800.5
12.5°	826.3	827.9	827.9	830.9	834.0	843.2	846.3	841.7	841.7	835.5	826.3
15°	863.1	863.1	863.1	866.1	867.7	879.8	882.9	878.3	881.4	870.7	861.5
17.5°	898.2	899.7	902.8	908.9	908.9	919.5	925.7	925.7	931.8	918.0	905.8
20°	933.3	934.9	939.4	953.2	953.2	966.9	977.6	982.2	988.3	974.6	953.2
22.5°	971.5	971.5	979.2	1000.5	995.9	1023.5	1043.3	1051.0	1057.0	1038.7	1005.2
25°	1029.6	1023.5	1029.6	1049.4	1046.4	1084.5	1121.2	1128.8	1136.5	1115.1	1064.7
27.5°	1139.6	1130.4	1109.0	1110.5	1110.5	1154.8	1206.8	1217.4	1222.0	1203.7	1141.1
30°	1359.5	1359.5	1280.0	1226.6	1191.4	1231.2	1304.5	1322.9	1328.9	1301.4	1218.9
32.5°	1742.9	1742.9	1596.2	1460.3	1327.4	1327.4	1411.5	1445.0	1451.2	1419.0	1322.9
35°	2231.7	2228.7	2008.7	1822.3	1562.7	1464.9	1536.7	1593.2	1611.6	1568.8	1457.3
37.5°	2751.0	2731.2	2494.5	2280.6	1924.7	1684.9	1706.3	1781.1	1797.9	1762.7	1631.4
40°	3172.7	3149.8	2958.8	2780.1	2392.1	2036.2	1950.7	2019.4	2039.3	1990.4	1839.2
42.5°	3554.5	3498.0	3366.6	3238.4	2929.8	2644.1	2276.0	2303.5	2324.9	2273.0	2072.8
45°	3831.1	3744.0	3676.8	3637.0	3473.6	3311.7	2697.6	2642.6	2650.3	2586.1	2327.9
47.5°	3838.6	3777.6	3783.7	3887.5	3954.7	3948.7	3246.0	3050.4	3021.4	2914.5	2599.8
50°	3472.1	3507.2	3618.7	3915.0	4278.6	4498.5	3898.3	3533.2	3446.1	3253.6	2870.2
52.5°	2861.1	2916.0	3125.3	3624.8	4326.0	4860.6	4574.9	4084.6	3928.7	3589.6	3078.0
55°	2240.9	2243.9	2463.9	2972.6	4009.8	4926.2	5115.7	4691.0	4452.7	3844.8	3215.4
57.5°	1541.3	1625.3	1904.8	2247.0	3296.4	4599.4	5318.8	5161.5	4854.4	4002.1	3311.7
60°	1009.7	1014.3	1339.7	1735.2	2243.9	3742.5	5195.1	5410.5	5179.8	4095.3	3377.4
62°	711.9	719.4	921.1	1417.5	1690.9	2682.3	4921.7	5462.5	5363.1	4150.3	3446.1
62.5°	659.9	666.0	835.5	1338.1	1588.6	2405.9	4823.9	5450.2	5390.6	4168.6	3470.6
65°	484.3	484.3	546.9	919.5	1164.0	1300.0	4087.6	5207.3	5353.9	4315.2	3562.2
67.5°	374.2	377.3	398.6	566.7	878.3	788.2	2609.0	4660.5	4972.1	4532.2	3614.1
70°	322.3	320.8	336.0	375.7	633.9	524.0	1148.7	3637.0	4164.0	4477.1	3566.7
72.5°	238.2	239.8	275.0	329.9	441.4	340.6	519.4	1930.8	2700.7	3504.1	3056.6
75°	152.7	154.3	194.0	259.7	317.7	223.0	299.4	575.9	1105.9	1943.0	1869.6
77.5°	102.3	105.4	126.7	181.8	278.0	139.0	187.9	241.3	333.0	728.6	670.5
80°	68.7	68.7	80.9	122.2	175.6	116.1	100.9	160.4	172.6	226.1	113.0
82.5°	45.8	45.8	53.5	80.9	114.6	103.8	61.1	87.1	100.9	113.0	39.7
85°	27.5	27.5	36.6	50.4	74.9	58.0	39.7	48.9	52.0	71.8	21.4
87.5°	16.8	15.2	24.4	35.1	39.7	35.1	26.0	26.0	27.5	39.7	10.7
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°	748.5	748.5	748.5	748.5	748.5	748.5	748.5	748.5	748.5	748.5	748.5
2.5°	747.0	745.4	743.9	740.8	736.2	733.3	730.2	727.1	724.0	724.0	728.6
5°	760.7	756.2	750.0	743.9	734.8	728.6	724.0	717.9	714.8	714.8	716.4
7.5°	777.5	772.9	762.2	751.6	737.8	727.1	716.4	702.7	691.9	687.4	691.9
10°	795.9	789.7	774.5	757.7	742.4	714.8	679.8	637.0	600.3	583.5	591.2
12.5°	818.8	811.1	792.8	769.9	734.8	667.6	580.4	481.2	418.6	389.5	395.7
15°	852.3	841.7	815.7	780.6	702.7	557.5	415.5	301.0	242.8	218.4	221.5
17.5°	892.1	878.3	843.2	777.5	620.2	401.7	247.5	175.6	151.2	145.2	145.2
20°	934.9	916.5	870.7	754.6	494.9	252.1	154.3	134.4	125.2	120.7	120.7
22.5°	979.2	954.7	893.6	701.1	352.8	157.3	126.7	113.0	102.3	97.8	97.8
25°	1032.6	1000.5	916.5	607.9	224.5	126.7	108.4	94.7	84.0	77.9	79.4
27.5°	1095.3	1053.9	936.4	491.8	145.2	110.0	90.1	76.4	67.2	64.1	64.1
30°	1160.9	1112.0	940.9	368.2	117.6	94.7	74.9	62.6	56.6	53.5	53.5
32.5°	1251.1	1186.9	927.2	244.4	99.3	79.4	62.6	52.0	47.4	45.8	45.8
35°	1370.1	1284.6	895.1	151.2	84.0	65.7	52.0	45.8	41.2	39.7	39.7
37.5°	1521.4	1420.6	838.6	103.8	71.8	53.5	44.3	39.7	36.6	35.1	35.1
40°	1723.1	1585.6	765.3	90.1	61.1	45.8	38.2	35.1	32.1	32.1	32.1
42.5°	1936.9	1785.7	670.5	79.4	52.0	39.7	33.7	30.6	29.1	27.5	27.5
45°	2170.6	1990.4	553.0	70.3	44.3	35.1	30.6	26.0	24.4	24.4	24.4
47.5°	2402.8	2201.2	424.6	61.1	38.2	30.6	26.0	22.9	21.4	19.8	19.8
50°	2641.1	2392.1	311.6	53.5	33.7	27.5	22.9	19.8	16.8	15.2	15.2
52.5°	2813.7	2506.6	227.6	45.8	29.1	22.9	18.3	15.2	12.2	10.7	10.7
55°	2940.5	2576.9	166.5	38.2	26.0	19.8	15.2	12.2	9.2	9.2	7.7
57.5°	3039.8	2610.6	125.2	33.7	22.9	16.8	12.2	9.2	7.7	6.1	6.1
60°	3116.1	2612.1	93.2	27.5	19.8	13.7	9.2	6.1	4.6	4.6	4.6
62°	3217.0	2632.0	76.4	22.9	18.3	12.2	7.7	4.6	3.1	1.5	1.5
62.5°	3246.0	2639.5	73.3	22.9	16.8	10.7	6.1	4.6	3.1	1.5	1.5
65°	3380.4	2653.3	56.6	18.3	13.7	9.2	4.6	3.1	0.0	0.0	0.0
67.5°	3502.6	2632.0	41.2	13.7	10.7	6.1	4.6	1.5	0.0	0.0	0.0
70°	3490.4	2485.3	29.1	9.2	7.7	4.6	3.1	0.0	0.0	0.0	0.0
72.5°	2876.3	1860.5	19.8	7.7	4.6	3.1	1.5	0.0	0.0	0.0	0.0
75°	1736.8	814.2	13.7	4.6	4.6	3.1	1.5	0.0	0.0	0.0	0.0
77.5°	569.8	294.8	9.2	3.1	3.1	1.5	1.5	0.0	0.0	0.0	0.0
80°	93.2	48.9	4.6	3.1	3.1	1.5	1.5	0.0	0.0	0.0	0.0
82.5°	29.1	12.2	3.1	3.1	1.5	1.5	0.0	0.0	0.0	0.0	0.0
85°	10.7	4.6	3.1	3.1	1.5	1.5	0.0	0.0	0.0	0.0	0.0
87.5°	4.6	3.1	3.1	3.1	1.5	1.5	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)