

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: P265791

Luminaire Tested: **ARCH-M-AF48-80-D-U-T2U-7027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265791  
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-AF48-80-D-U-T2U-7027-HSS  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 2700K, 535mA 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: 6727.1 lumens  
Efficiency: N/A  
Efficacy: 81.0 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 - G1

Input Watts (W): 83  
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

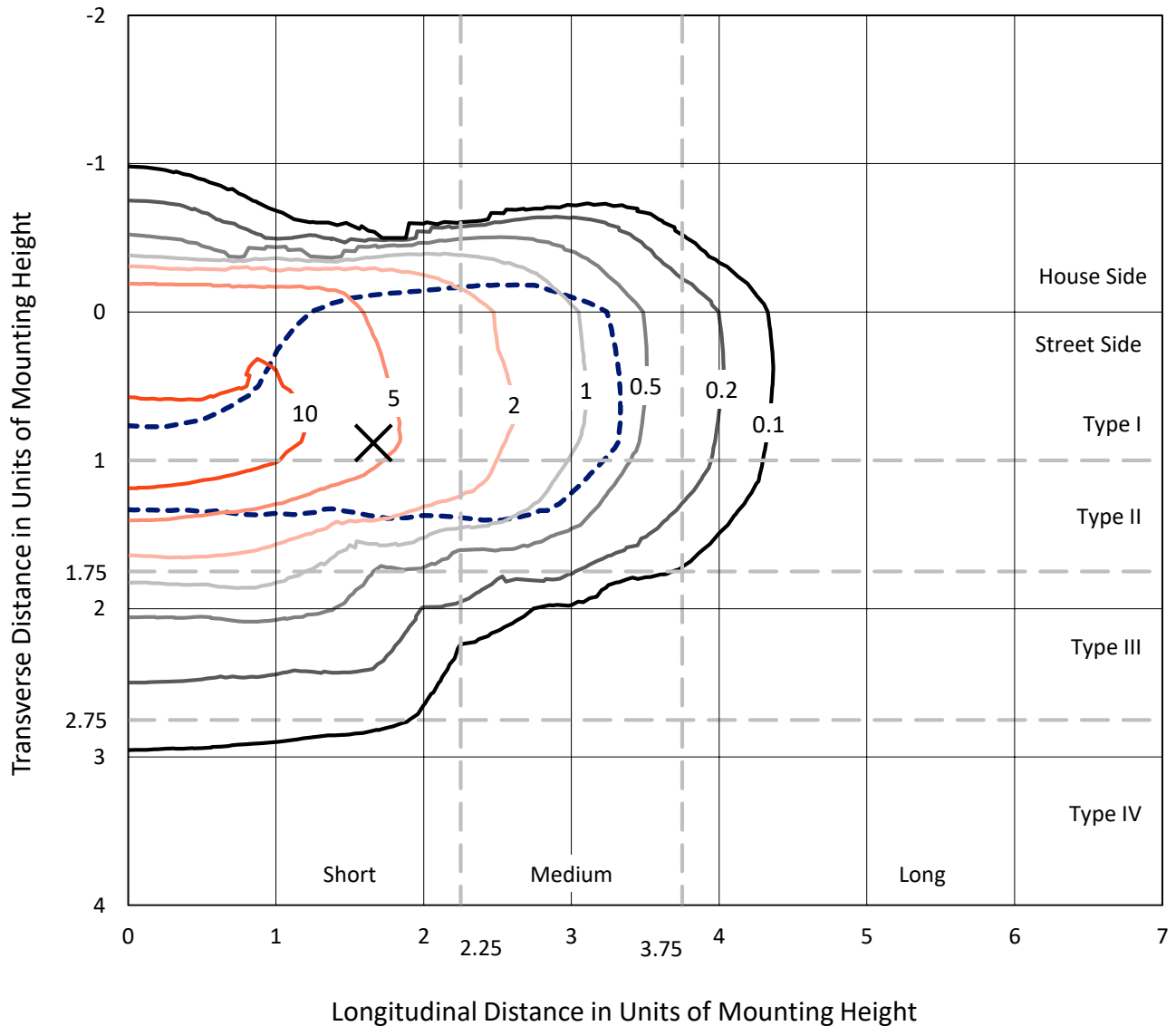


REPORT NUMBER: P265791

CATALOG NUMBER: ARCH-M-AF48-80-D-U-T2U-7027-HSS

### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

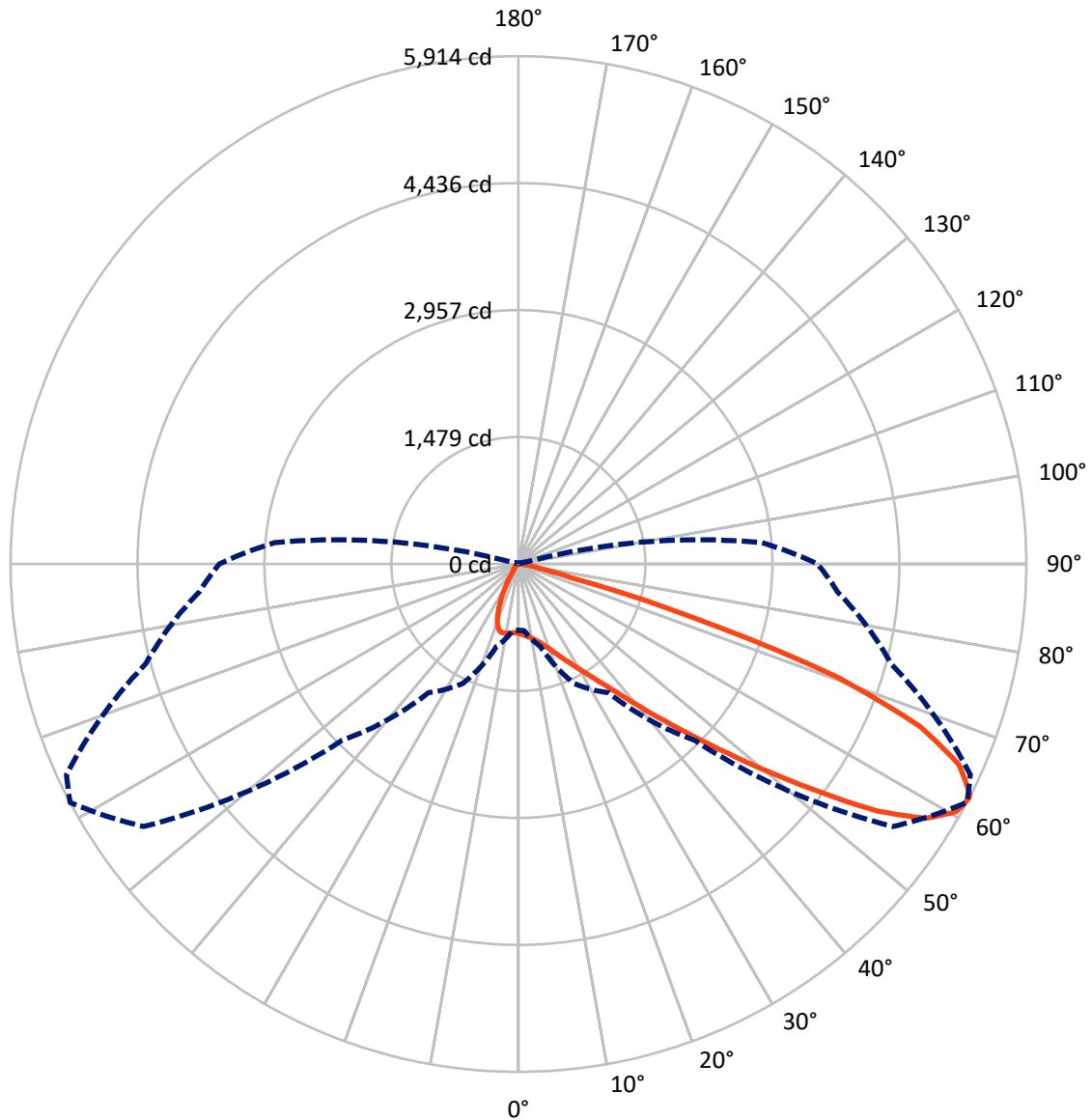


Based on 10 foot mounting height. Maximum calculated value = 15.5 fc  
 Type II - Short - Full Cutoff

REPORT NUMBER: P265791

CATALOG NUMBER: ARCH-M-AF48-80-D-U-T2U-7027-HSS

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P265791

CATALOG NUMBER: ARCH-M-AF48-80-D-U-T2U-7027-HSS

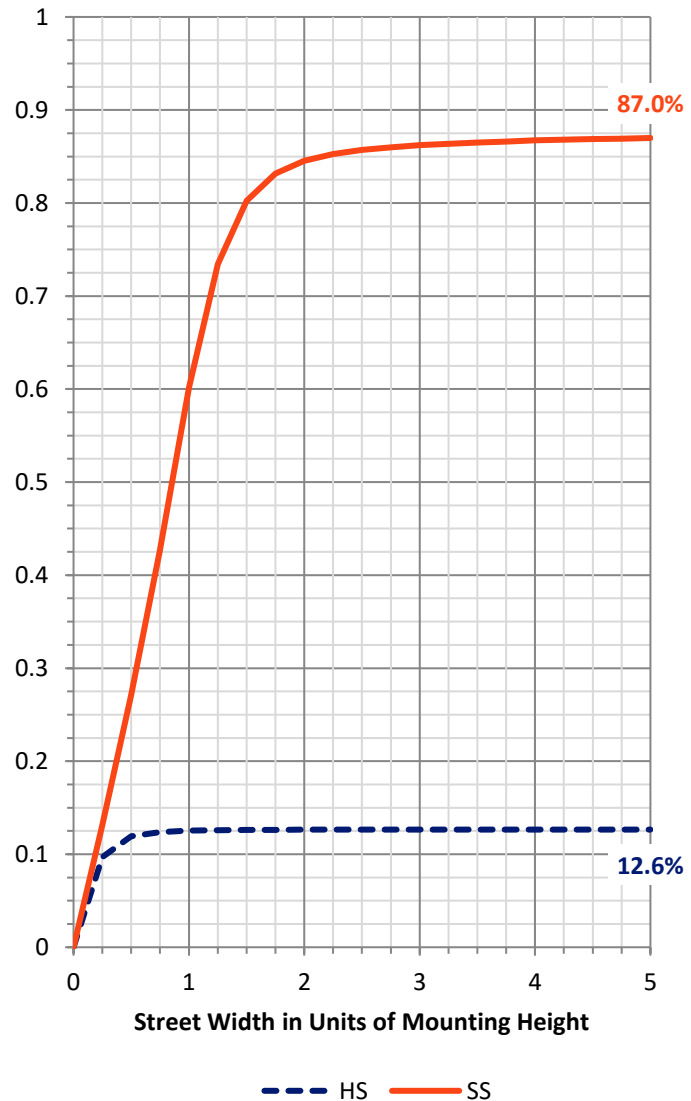
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	860.2	0.0	860.2
	% Fixture	12.8	0.0	12.8
<b>Street Side</b>	Lumens	5866.9	0.0	5866.9
	% Fixture	87.2	0.0	87.2
<b>Total</b>	Lumens	6727.1	0.0	6727.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.0	1.2
10°-20°	217.8	3.2
20°-30°	365.8	5.4
30°-40°	701.1	10.4
40°-50°	1432.0	21.3
50°-60°	1895.1	28.2
60°-70°	1472.2	21.9
70°-80°	531.4	7.9
80°-90°	33.9	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°	6727.1	100.0
0°-180°	6727.1	100.0



REPORT NUMBER: P265791

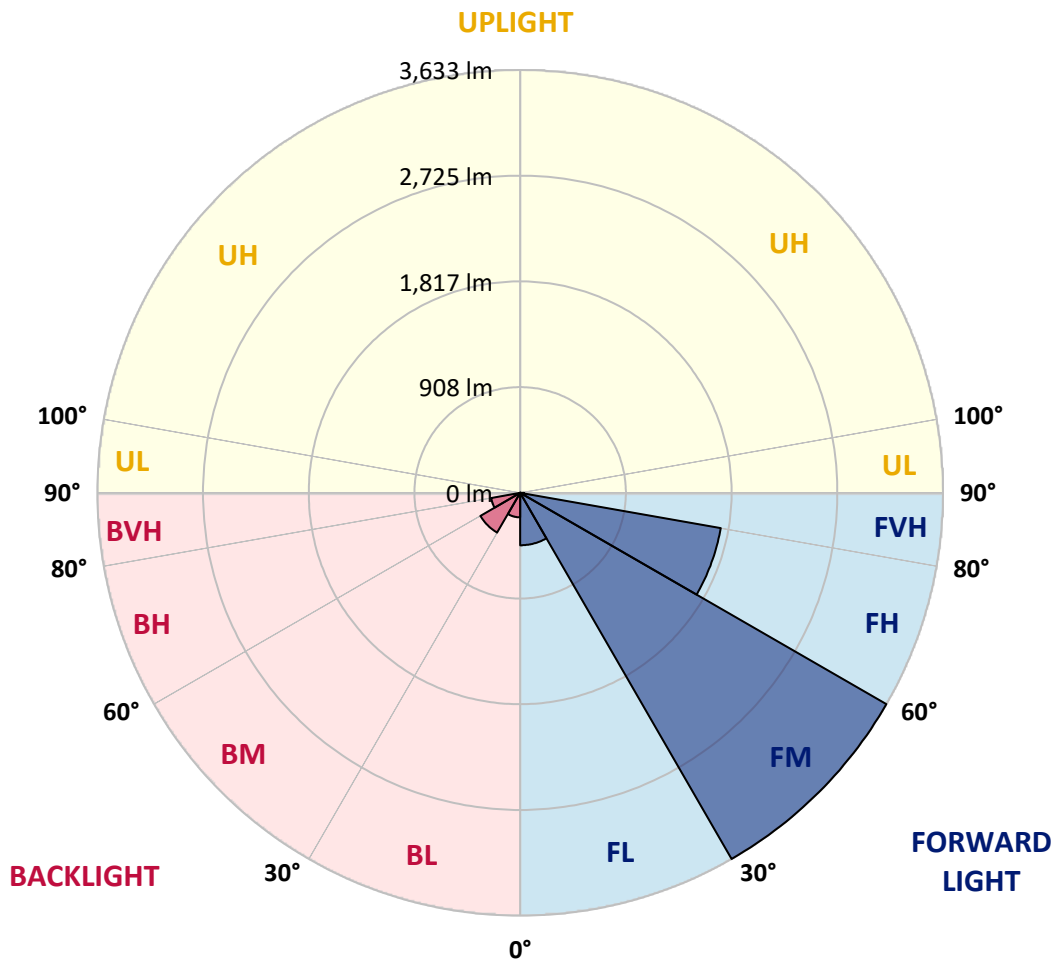
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	451.0	6.7			
FM	(30°-60°)	3633.3	54.0			
FH	(60°-80°)	1750.3	26.0			G1/1800
FVH	(80°-90°)	32.4	0.5			G1/100
BL	(0°-30°)	210.5	3.1	B1/500		
BM	(30°-60°)	394.9	5.9	B1/1000		
BH	(60°-80°)	253.3	3.8	B1/500		G1/500
BVH	(80°-90°)	1.5	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-G1**

Type II Short





REPORT NUMBER: P265791

CATALOG NUMBER: ARCH-M-AF48-80-D-U-T2U-7027-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	62°	65°	75°	85°
0°	810.5	810.5	810.5	810.5	810.5	810.5	810.5	810.5	810.5	810.5	810.5
2.5°	831.9	830.3	828.5	826.9	826.9	825.3	823.6	820.3	817.0	813.7	812.0
5°	846.7	845.0	843.5	845.0	843.5	843.5	841.8	838.5	835.2	830.3	825.3
7.5°	858.3	856.7	854.9	856.7	858.3	859.9	861.7	858.3	856.7	850.1	845.0
10°	873.2	871.5	869.9	873.2	873.2	881.4	883.2	881.4	879.8	874.9	866.5
12.5°	894.7	896.4	896.4	899.7	902.9	912.9	916.2	911.2	911.2	904.7	894.7
15°	934.3	934.3	934.3	937.7	939.4	952.7	955.8	950.9	954.2	942.7	932.7
17.5°	972.4	974.1	977.4	984.1	984.1	995.6	1002.1	1002.1	1008.8	994.0	980.7
20°	1010.5	1012.1	1017.2	1032.0	1032.0	1046.9	1058.5	1063.5	1070.1	1055.1	1032.0
22.5°	1051.8	1051.8	1060.1	1083.3	1078.2	1108.1	1129.6	1137.9	1144.4	1124.6	1088.1
25°	1114.6	1108.1	1114.6	1136.1	1132.9	1174.3	1213.9	1222.1	1230.4	1207.3	1152.7
27.5°	1233.7	1223.9	1200.7	1202.3	1202.3	1250.4	1306.6	1318.2	1323.1	1303.3	1235.3
30°	1472.0	1472.0	1385.8	1328.1	1290.0	1332.9	1412.3	1432.2	1438.8	1409.0	1319.7
32.5°	1887.0	1887.0	1728.2	1581.0	1437.2	1437.2	1528.0	1564.5	1571.1	1536.5	1432.2
35°	2416.3	2412.8	2174.7	1972.9	1691.9	1586.0	1663.8	1724.9	1744.8	1698.4	1577.8
37.5°	2978.5	2957.0	2700.7	2469.1	2083.8	1824.2	1847.4	1928.3	1946.5	1908.4	1766.2
40°	3434.9	3410.1	3203.4	3010.0	2589.9	2204.5	2111.9	2186.4	2207.9	2154.9	1991.2
42.5°	3848.3	3787.3	3645.1	3506.1	3171.9	2862.7	2464.2	2494.0	2517.1	2460.8	2244.2
45°	4147.7	4053.5	3980.7	3937.7	3760.8	3585.4	2920.6	2861.1	2869.4	2799.8	2520.5
47.5°	4156.0	4089.9	4096.5	4208.9	4281.7	4275.0	3514.3	3302.7	3271.2	3155.4	2814.7
50°	3759.0	3797.1	3917.9	4238.7	4632.3	4870.4	4220.4	3825.3	3731.0	3522.7	3107.4
52.5°	3097.5	3157.2	3383.6	3924.4	4683.6	5262.5	4953.2	4422.3	4253.6	3886.4	3332.4
55°	2426.1	2429.5	2667.5	3218.3	4341.1	5333.4	5538.6	5078.8	4820.8	4162.7	3481.2
57.5°	1668.7	1759.6	2062.2	2432.7	3568.8	4979.7	5758.6	5588.1	5255.9	4333.0	3585.4
60°	1093.1	1098.1	1450.5	1878.7	2429.5	4051.9	5624.6	5857.8	5608.1	4433.9	3656.6
62°	770.7	778.9	997.3	1534.8	1830.7	2904.1	5328.6	5914.0	5806.6	4493.4	3731.0
62.5°	714.4	721.1	904.7	1448.7	1720.0	2604.7	5222.7	5900.7	5836.3	4513.3	3757.4
65°	524.3	524.3	592.1	995.6	1260.2	1407.4	4425.6	5637.9	5796.7	4671.9	3856.7
67.5°	405.1	408.5	431.6	613.5	950.9	853.4	2824.7	5045.8	5383.2	4906.8	3912.8
70°	348.9	347.4	363.9	406.8	686.3	567.3	1243.7	3937.7	4508.2	4847.3	3861.6
72.5°	258.1	259.6	297.7	357.3	478.0	368.8	562.2	2090.4	2924.0	3793.8	3309.3
75°	165.4	167.1	210.1	281.2	344.1	241.5	324.2	623.5	1197.4	2103.7	2024.2
77.5°	110.9	114.2	137.4	196.8	301.0	150.5	203.5	261.2	360.5	788.8	726.0
80°	74.4	74.4	87.7	132.3	190.3	125.8	109.1	173.6	186.8	244.8	122.3
82.5°	49.6	49.6	57.9	87.7	124.1	112.5	66.1	94.2	109.1	122.3	42.9
85°	29.7	29.7	39.6	54.5	81.0	62.8	42.9	52.9	56.2	77.8	23.1
87.5°	18.1	16.6	26.5	38.1	42.9	38.1	28.0	28.0	29.7	42.9	11.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P265791

CATALOG NUMBER: ARCH-M-AF48-80-D-U-T2U-7027-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	810.5	810.5	810.5	810.5	810.5	810.5	810.5	810.5	810.5	810.5	810.5
2.5°	808.7	807.0	805.4	802.0	797.2	793.8	790.5	787.3	784.0	784.0	788.8
5°	823.6	818.6	812.0	805.4	795.4	788.8	784.0	777.4	774.0	774.0	775.6
7.5°	841.8	836.9	825.3	813.7	798.9	787.3	775.6	760.8	749.1	744.2	749.1
10°	861.7	854.9	838.5	820.3	803.8	774.0	735.9	689.5	650.0	631.8	640.0
12.5°	886.4	878.2	858.3	833.4	795.4	722.6	628.5	520.9	453.1	421.8	428.3
15°	922.7	911.2	883.2	845.0	760.8	603.7	449.8	325.7	262.9	236.6	239.8
17.5°	965.8	950.9	912.9	841.8	671.5	435.0	268.0	190.3	163.8	157.2	157.2
20°	1012.1	992.3	942.7	817.0	535.7	272.8	167.1	145.5	135.6	130.7	130.7
22.5°	1060.1	1033.6	967.5	759.1	382.0	170.4	137.4	122.3	110.9	105.8	105.8
25°	1118.0	1083.3	992.3	658.2	243.1	137.4	117.4	102.5	91.0	84.4	86.0
27.5°	1185.9	1141.1	1013.7	532.5	157.2	119.0	97.6	82.7	72.8	69.4	69.4
30°	1256.9	1204.0	1018.8	398.6	127.3	102.5	81.0	67.8	61.2	57.9	57.9
32.5°	1354.5	1285.0	1003.9	264.6	107.4	86.0	67.8	56.2	51.3	49.6	49.6
35°	1483.6	1390.8	969.1	163.8	91.0	71.1	56.2	49.6	44.6	42.9	42.9
37.5°	1647.2	1538.1	907.9	112.5	77.8	57.9	48.0	42.9	39.6	38.1	38.1
40°	1865.5	1716.7	828.5	97.6	66.1	49.6	41.3	38.1	34.8	34.8	34.8
42.5°	2097.1	1933.3	726.0	86.0	56.2	42.9	36.4	33.1	31.4	29.7	29.7
45°	2350.1	2154.9	598.7	76.0	48.0	38.1	33.1	28.0	26.5	26.5	26.5
47.5°	2601.4	2383.2	459.8	66.1	41.3	33.1	28.0	24.9	23.1	21.5	21.5
50°	2859.5	2589.9	337.4	57.9	36.4	29.7	24.9	21.5	18.1	16.6	16.6
52.5°	3046.3	2713.9	246.4	49.6	31.4	24.9	19.9	16.6	13.2	11.6	11.6
55°	3183.6	2790.0	180.3	41.3	28.0	21.5	16.6	13.2	9.9	9.9	8.3
57.5°	3291.1	2826.3	135.6	36.4	24.9	18.1	13.2	9.9	8.3	6.6	6.6
60°	3373.8	2828.0	100.9	29.7	21.5	14.9	9.9	6.6	5.0	5.0	5.0
62°	3482.9	2849.6	82.7	24.9	19.9	13.2	8.3	5.0	3.4	1.6	1.6
62.5°	3514.3	2857.8	79.4	24.9	18.1	11.6	6.6	5.0	3.4	1.6	1.6
65°	3659.9	2872.7	61.2	19.9	14.9	9.9	5.0	3.4	0.0	0.0	0.0
67.5°	3792.1	2849.6	44.6	14.9	11.6	6.6	5.0	1.6	0.0	0.0	0.0
70°	3778.9	2690.8	31.4	9.9	8.3	5.0	3.4	0.0	0.0	0.0	0.0
72.5°	3114.2	2014.3	21.5	8.3	5.0	3.4	1.6	0.0	0.0	0.0	0.0
75°	1880.4	881.4	14.9	5.0	5.0	3.4	1.6	0.0	0.0	0.0	0.0
77.5°	616.9	319.2	9.9	3.4	3.4	1.6	1.6	0.0	0.0	0.0	0.0
80°	100.9	52.9	5.0	3.4	3.4	1.6	1.6	0.0	0.0	0.0	0.0
82.5°	31.4	13.2	3.4	3.4	1.6	1.6	0.0	0.0	0.0	0.0	0.0
85°	11.6	5.0	3.4	3.4	1.6	1.6	0.0	0.0	0.0	0.0	0.0
87.5°	5.0	3.4	3.4	3.4	1.6	1.6	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)