

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: P265784

Luminaire Tested: **ARCH-M-AF48-70-D-U-T3-7027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265784  
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-T3-7027-HSS  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 2700K, 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: 6494.5 lumens  
Efficiency: N/A  
Efficacy: 89.0 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

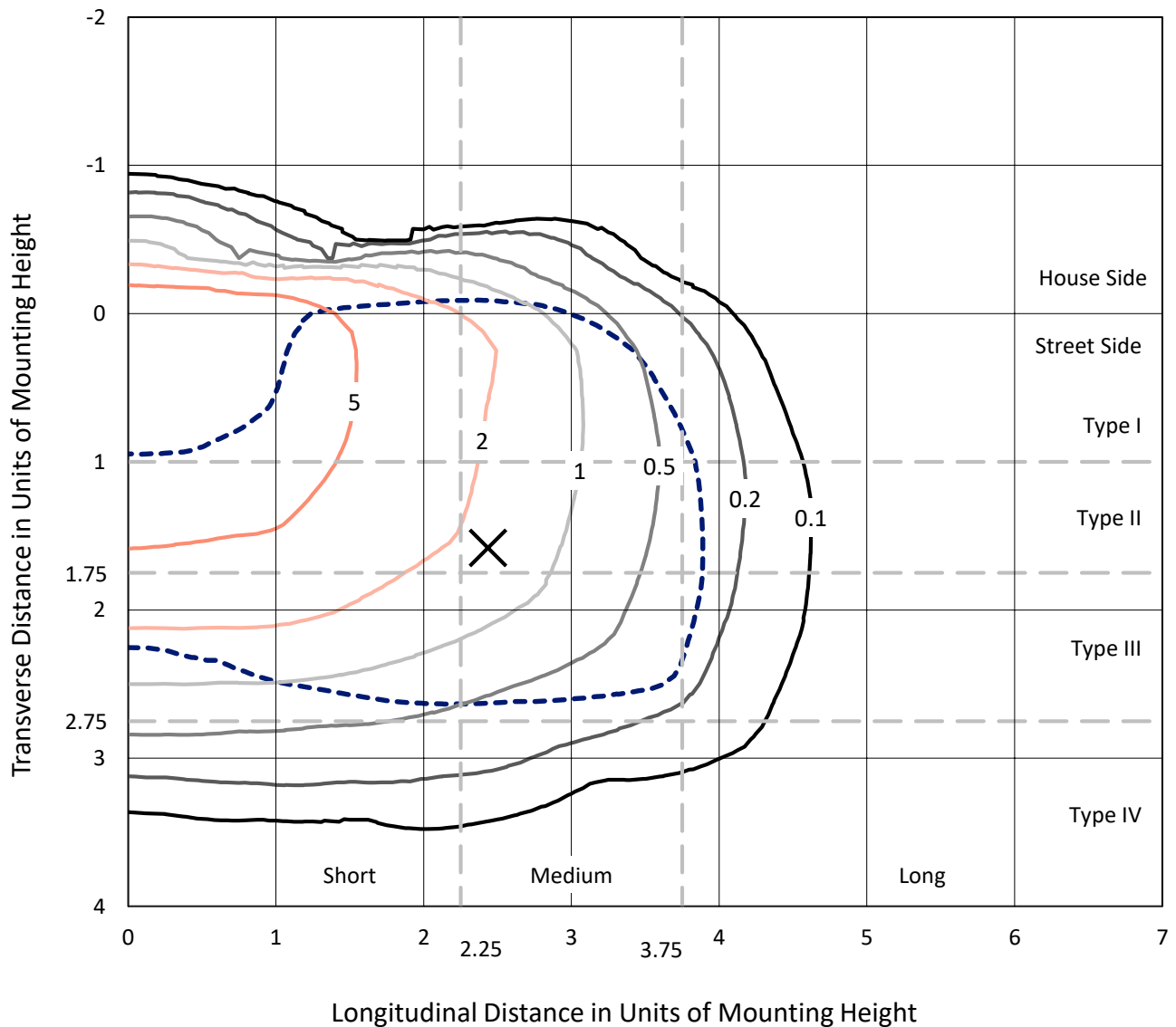


REPORT NUMBER: P265784

CATALOG NUMBER: ARCH-M-AF48-70-D-U-T3-7027-HSS

### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

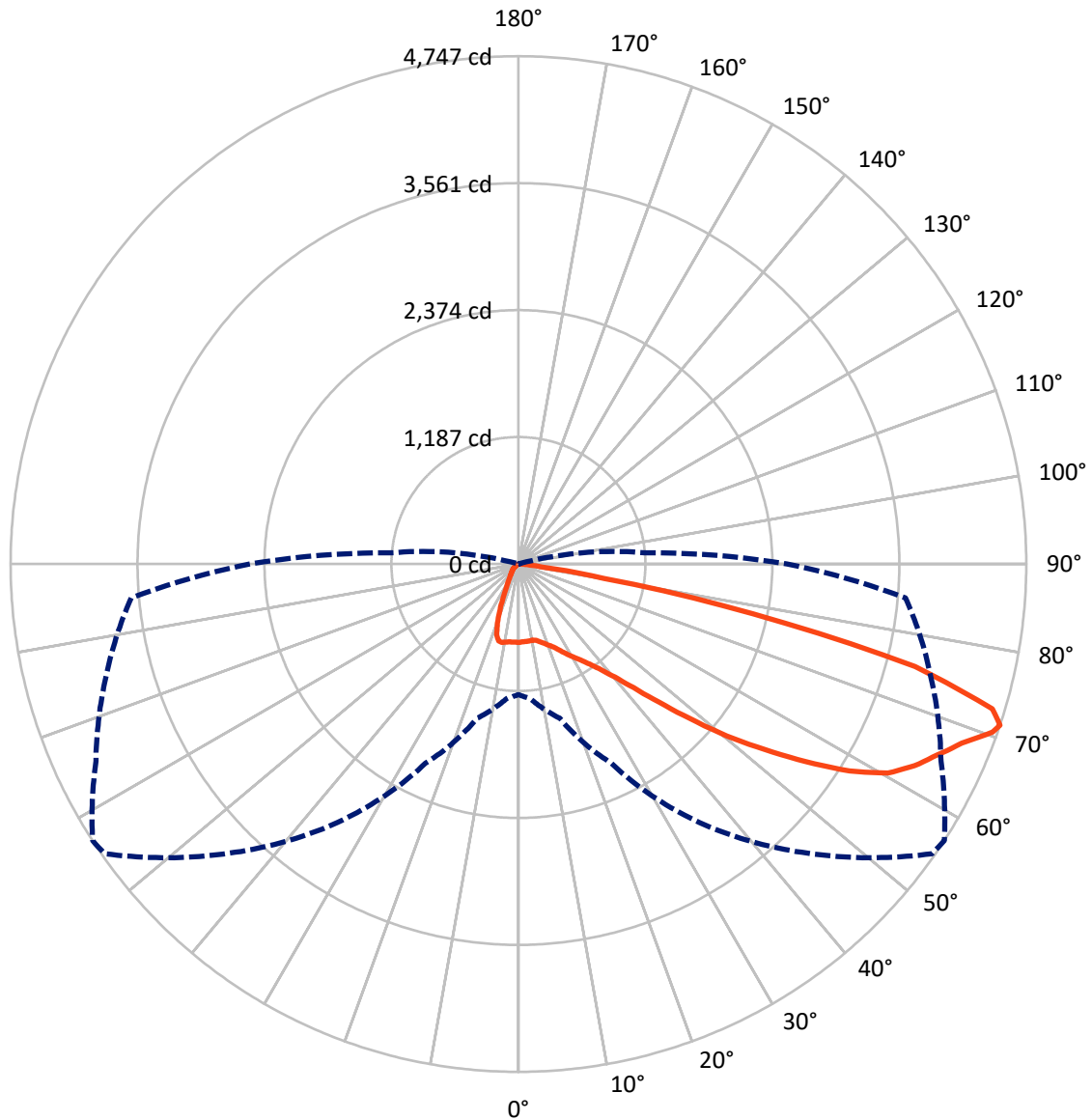


Based on 10 foot mounting height. Maximum calculated value = 9.1 fc  
 Type III - Medium - Semi-Cutoff

REPORT NUMBER: P265784

CATALOG NUMBER: ARCH-M-AF48-70-D-U-T3-7027-HSS

### Luminous Intensity Polar Plot



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



REPORT NUMBER: P265784

CATALOG NUMBER: ARCH-M-AF48-70-D-U-T3-7027-HSS

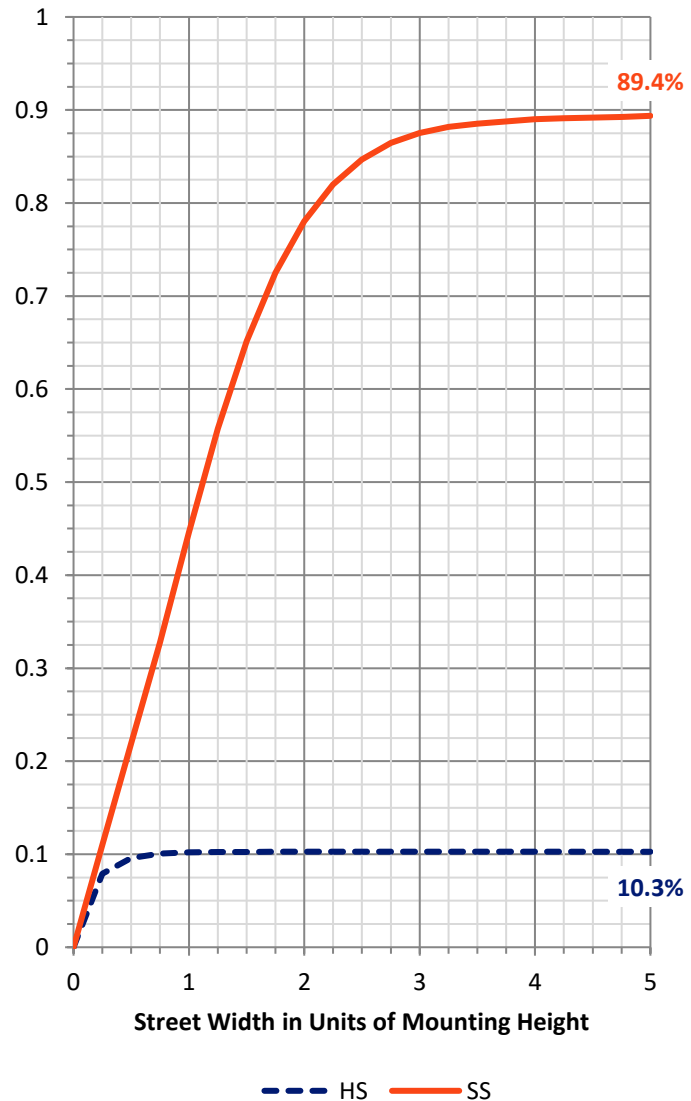
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	673.0	0.0	673.0
	% Fixture	10.4	0.0	10.4
<b>Street Side</b>	Lumens	5821.5	0.0	5821.5
	% Fixture	89.6	0.0	89.6
<b>Total</b>	Lumens	6494.5	0.0	6494.5
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.9	1.1
10°-20°	184.3	2.8
20°-30°	287.5	4.4
30°-40°	485.9	7.5
40°-50°	943.8	14.5
50°-60°	1585.0	24.4
60°-70°	1891.5	29.1
70°-80°	996.8	15.3
80°-90°	50.7	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°	6494.5	100.0
0°-180°	6494.5	100.0

**Coefficient of Utilization**



REPORT NUMBER: P265784

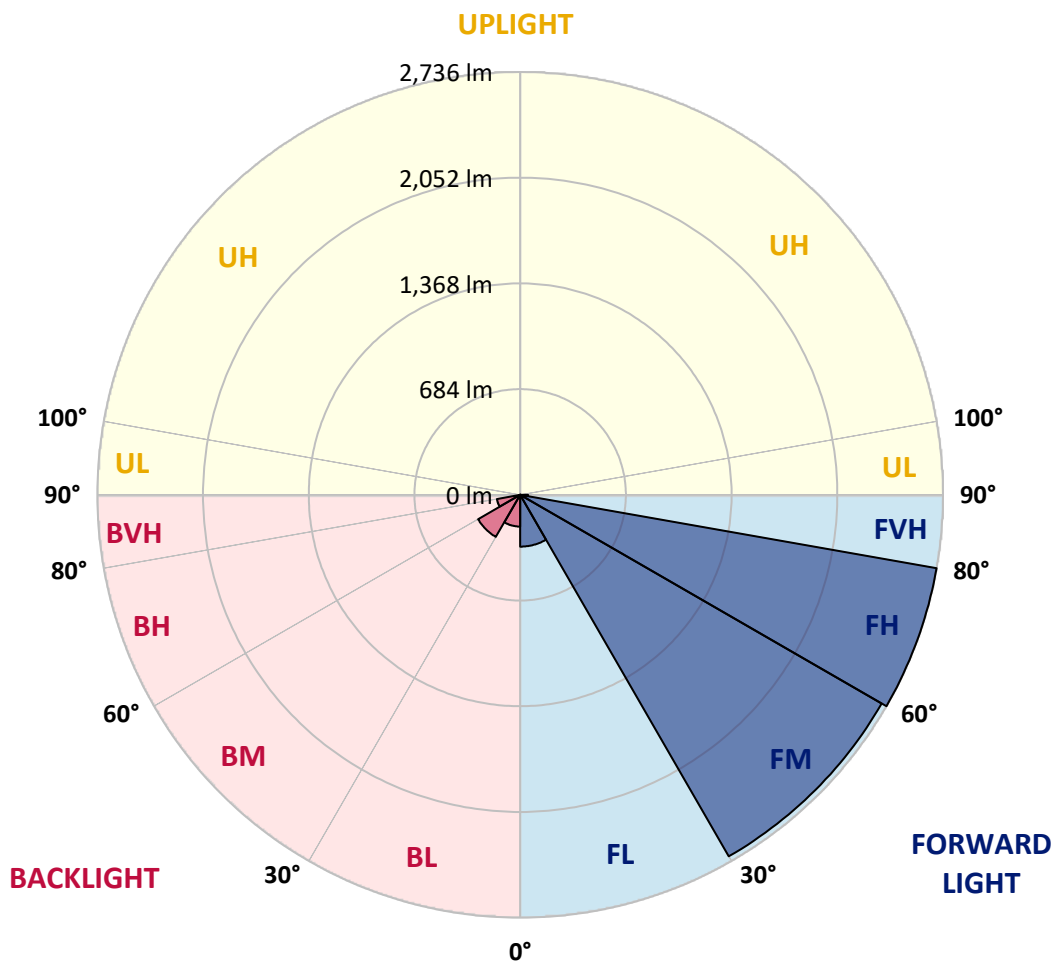
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	335.3	5.2			
FM	(30°-60°)	2700.5	41.6			
FH	(60°-80°)	2735.5	42.1			G2/5000
FVH	(80°-90°)	50.2	0.8			G1/100
BL	(0°-30°)	205.4	3.2	B1/500		
BM	(30°-60°)	314.3	4.8	B1/1000		
BH	(60°-80°)	152.8	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





REPORT NUMBER: P265784

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	733.9	733.9	733.9	733.9	733.9	733.9	733.9	733.9	733.9	733.9	733.9
2.5°	723.3	723.3	723.3	724.9	726.4	726.4	729.5	727.9	727.9	727.9	731.0
5°	703.7	705.2	706.7	709.8	715.8	720.4	727.9	727.9	729.5	732.5	733.9
7.5°	676.5	678.0	682.5	688.6	700.7	711.3	723.3	726.4	731.0	738.4	741.6
10°	659.9	662.9	668.9	676.5	690.1	703.7	718.9	723.3	737.0	750.7	758.2
12.5°	655.3	656.8	662.9	674.9	691.5	708.3	727.9	732.5	752.2	773.4	785.4
15°	662.9	664.3	667.4	681.0	700.7	721.9	747.6	753.7	777.8	802.0	817.2
17.5°	676.5	676.5	679.5	691.5	712.7	737.0	770.2	779.4	806.6	833.8	850.4
20°	685.5	685.5	690.1	702.1	726.4	758.2	797.5	809.6	839.9	870.2	885.3
22.5°	694.6	696.1	700.7	714.3	741.6	785.4	830.8	842.9	877.7	909.5	924.6
25°	720.4	718.9	720.4	732.5	764.3	818.7	876.2	891.4	927.7	962.4	970.1
27.5°	791.4	788.4	768.8	761.3	785.4	853.5	933.8	948.9	991.2	1026.0	1026.0
30°	954.9	948.9	900.5	838.4	818.7	885.3	988.2	1009.3	1064.0	1094.1	1085.1
32.5°	1162.2	1148.7	1086.6	980.7	902.0	927.7	1045.7	1069.9	1139.6	1165.3	1145.6
35°	1389.3	1387.7	1310.5	1174.4	1062.3	1015.4	1119.8	1148.7	1236.3	1259.2	1227.4
37.5°	1629.9	1636.0	1584.5	1396.9	1265.2	1159.3	1218.2	1251.6	1359.0	1386.3	1355.9
40°	1897.7	1896.2	1876.6	1654.0	1508.9	1363.5	1360.6	1390.8	1520.9	1563.3	1520.9
42.5°	2236.7	2233.6	2162.6	1962.7	1803.8	1629.9	1567.8	1578.4	1723.7	1793.3	1731.3
45°	2581.8	2560.6	2478.9	2306.4	2165.6	1959.8	1841.7	1841.7	1965.9	2061.3	1964.4
47.5°	2774.0	2752.8	2719.4	2624.2	2581.8	2351.8	2177.8	2156.6	2253.4	2350.2	2214.1
50°	3026.7	3026.7	2943.4	2907.2	2979.8	2817.9	2548.5	2527.3	2574.3	2651.3	2472.9
52.5°	3226.4	3190.2	3131.1	3162.9	3370.3	3296.2	2919.2	2878.3	2914.7	2934.4	2698.2
55°	3309.6	3275.0	3270.3	3386.9	3707.8	3604.8	3299.0	3262.7	3259.8	3162.9	2895.1
57.5°	3326.3	3296.2	3353.6	3557.8	4036.1	3857.5	3677.4	3650.3	3565.5	3323.3	3096.3
60°	3185.6	3200.8	3340.0	3651.7	4229.8	4077.0	3996.7	3968.1	3772.8	3459.6	3320.2
62.5°	2896.6	2932.8	3193.1	3660.9	4158.7	4166.2	4173.9	4154.1	3933.1	3583.6	3545.8
65°	2554.5	2565.1	2878.3	3535.2	4034.6	4139.0	4304.0	4302.4	4055.8	3722.8	3800.0
67.5°	2105.1	2123.2	2394.2	3111.4	3786.4	4127.0	4474.9	4470.4	4194.9	3881.8	3951.4
70°	1566.4	1589.0	1808.5	2419.9	3232.6	3975.5	4698.9	4702.0	4341.8	4002.8	3846.9
71°	1221.2	1262.1	1492.2	2055.1	2949.6	3822.6	4720.1	4747.4	4358.4	3986.1	3632.0
72.5°	599.3	647.7	936.8	1446.8	2427.4	3480.8	4580.8	4633.8	4254.1	3778.8	3105.4
75°	155.9	165.0	280.0	591.8	1301.5	2306.4	3694.1	3828.8	3477.7	2876.9	1897.7
77.5°	98.4	101.4	131.6	230.1	487.3	876.2	2170.1	2236.7	1987.1	1457.3	668.9
80°	69.6	71.1	83.3	148.3	284.6	255.7	780.8	809.6	718.9	385.9	119.6
82.5°	42.4	42.4	60.5	95.3	175.6	139.2	205.8	219.5	193.8	107.4	39.3
85°	24.3	25.7	37.8	65.0	83.3	68.1	77.2	81.7	83.3	71.1	16.7
87.5°	19.7	21.2	33.2	54.4	45.5	33.2	33.2	34.9	36.3	42.4	7.5
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: P265784

CATALOG NUMBER: ARCH-M-AF48-70-D-U-T3-7027-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	733.9	733.9	733.9	733.9	733.9	733.9	733.9	733.9	733.9	733.9	733.9
2.5°	731.0	731.0	732.5	731.0	731.0	731.0	732.5	732.5	732.5	735.5	737.0
5°	733.9	733.9	733.9	732.5	731.0	731.0	733.9	735.5	735.5	740.1	740.1
7.5°	741.6	741.6	738.4	735.5	732.5	727.9	729.5	731.0	729.5	731.0	731.0
10°	758.2	758.2	753.7	747.6	738.4	724.9	706.7	684.0	662.9	655.3	652.3
12.5°	785.4	784.0	774.9	764.3	744.5	697.7	629.5	549.4	482.7	464.7	458.6
15°	815.8	812.6	802.0	784.0	731.0	606.9	464.7	361.7	298.1	283.0	280.0
17.5°	847.6	842.9	827.8	791.4	668.9	450.9	299.7	227.0	192.1	189.2	190.7
20°	880.8	874.7	853.5	776.3	540.3	301.1	193.8	175.6	172.6	172.6	174.0
22.5°	918.5	911.1	882.2	721.9	393.5	199.8	166.5	165.0	163.4	162.0	162.0
25°	962.4	953.5	909.5	623.6	270.8	163.4	158.9	154.4	151.4	148.3	146.9
27.5°	1015.4	1003.3	930.7	502.4	186.2	152.8	149.7	142.2	136.3	130.2	130.2
30°	1068.4	1053.4	924.6	378.4	151.4	142.2	136.3	127.1	118.0	112.0	110.5
32.5°	1124.4	1109.2	885.3	254.2	137.7	130.2	122.6	109.0	98.4	90.8	89.3
35°	1207.6	1195.6	808.1	168.1	124.1	115.1	104.5	90.8	77.2	69.6	68.1
37.5°	1331.7	1316.6	712.7	128.6	109.0	95.3	86.2	71.1	57.5	49.9	48.4
40°	1498.3	1452.7	599.3	113.5	95.3	78.7	66.6	51.5	40.9	36.3	36.3
42.5°	1691.9	1584.5	476.7	102.9	84.7	65.0	48.4	34.9	28.7	27.3	27.3
45°	1897.7	1707.0	354.1	95.3	74.2	51.5	34.9	24.3	21.2	19.7	19.7
47.5°	2109.6	1806.9	246.7	86.2	62.1	39.3	24.3	18.1	15.1	13.7	13.7
50°	2307.8	1872.0	174.0	77.2	53.0	28.7	18.1	13.7	10.6	10.6	10.6
52.5°	2445.5	1866.0	125.7	66.6	40.9	19.7	12.0	9.2	9.2	9.2	9.2
55°	2566.6	1843.2	98.4	57.5	31.8	13.7	9.2	7.5	7.5	6.1	6.1
57.5°	2669.6	1806.9	83.3	46.9	22.6	10.6	6.1	6.1	4.5	4.5	4.5
60°	2757.3	1761.5	69.6	39.3	15.1	7.5	4.5	3.1	3.1	1.4	3.1
62.5°	2876.9	1732.8	60.5	30.3	10.6	4.5	3.1	1.4	1.4	0.0	0.0
65°	2964.6	1678.4	51.5	21.2	6.1	3.1	1.4	1.4	0.0	0.0	0.0
67.5°	2967.7	1579.8	37.8	12.0	4.5	3.1	1.4	0.0	0.0	0.0	0.0
70°	2728.5	1346.9	24.3	6.1	3.1	1.4	1.4	0.0	0.0	0.0	0.0
71°	2509.1	1192.5	19.7	4.5	3.1	1.4	0.0	0.0	0.0	0.0	0.0
72.5°	2067.2	876.2	15.1	4.5	1.4	1.4	0.0	0.0	0.0	0.0	0.0
75°	1139.6	317.8	7.5	3.1	1.4	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	364.7	96.8	4.5	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	62.1	15.1	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	21.2	6.1	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	6.1	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.1	1.4	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)