

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: P265793

Luminaire Tested: **ARCH-M-AF48-80-D-U-T3-7027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265793  
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-AF48-80-D-U-T3-7027-HSS  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 2700K, 535mA 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: 7262.9 lumens  
Efficiency: N/A  
Efficacy: 87.5 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): 83  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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

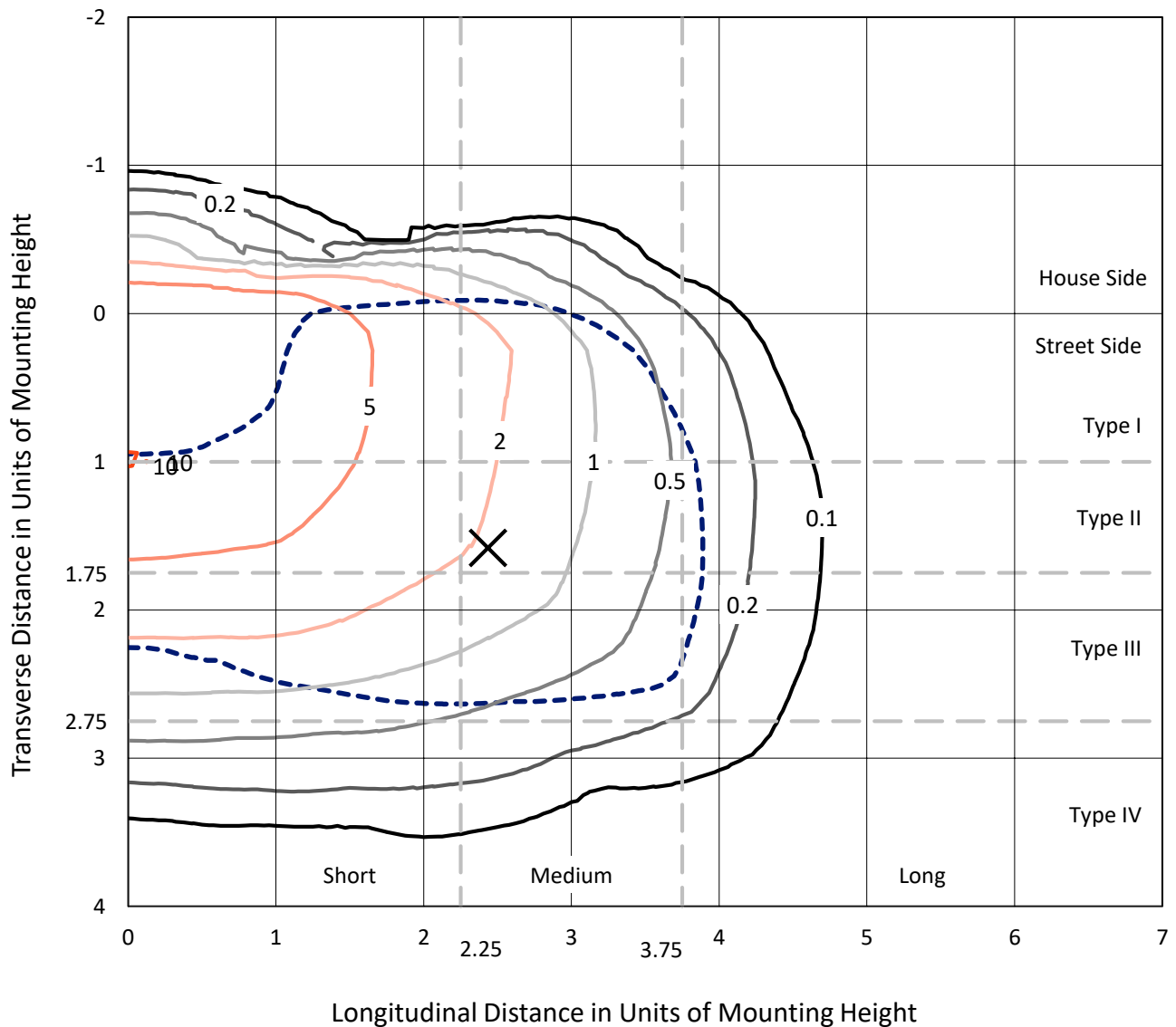


REPORT NUMBER: P265793

CATALOG NUMBER: ARCH-M-AF48-80-D-U-T3-7027-HSS

### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

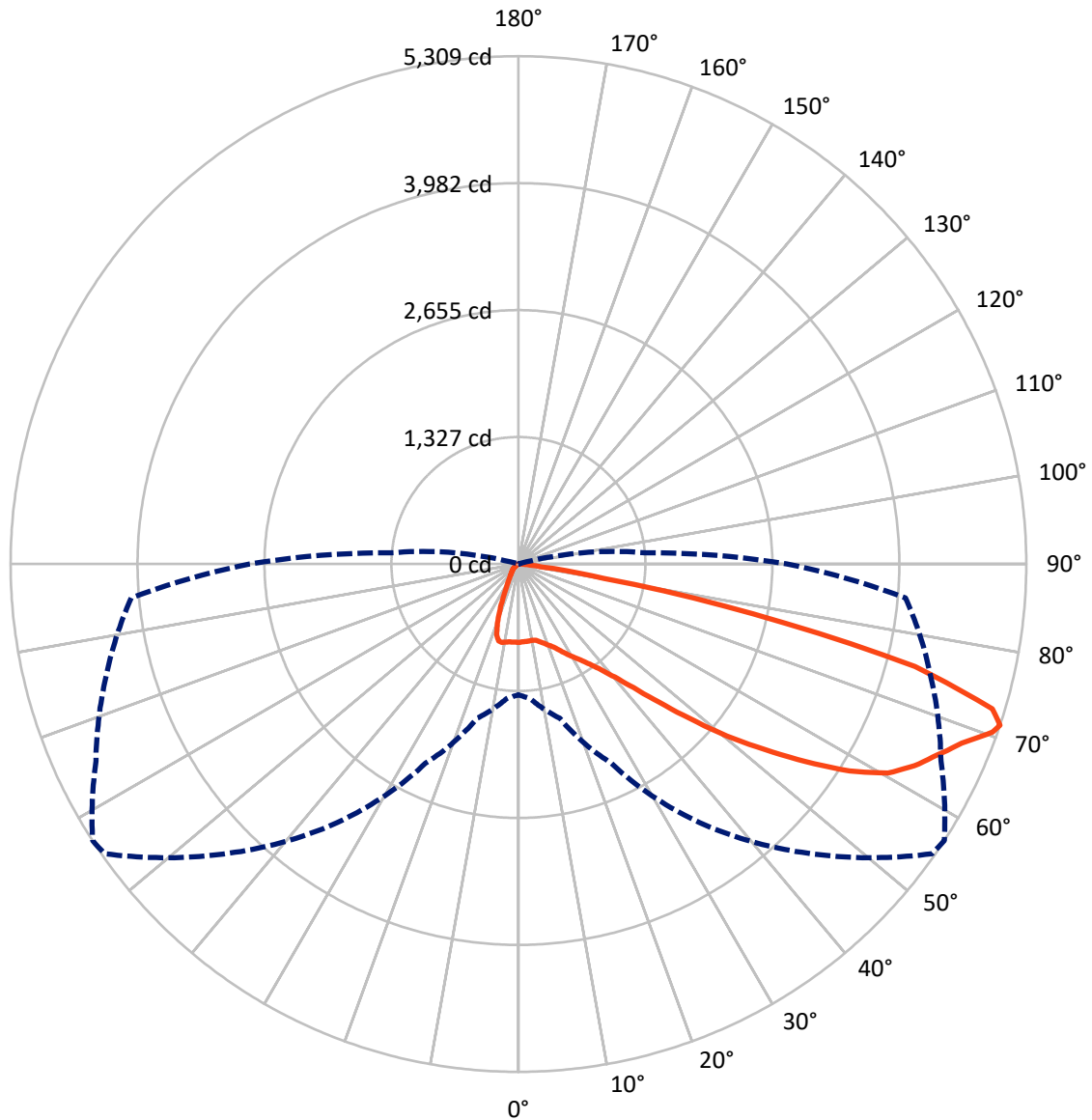


Based on 10 foot mounting height. Maximum calculated value = 10.2 fc  
 Type III - Medium - Semi-Cutoff

REPORT NUMBER: P265793

CATALOG NUMBER: ARCH-M-AF48-80-D-U-T3-7027-HSS

### Luminous Intensity Polar Plot



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



REPORT NUMBER: P265793

CATALOG NUMBER: ARCH-M-AF48-80-D-U-T3-7027-HSS

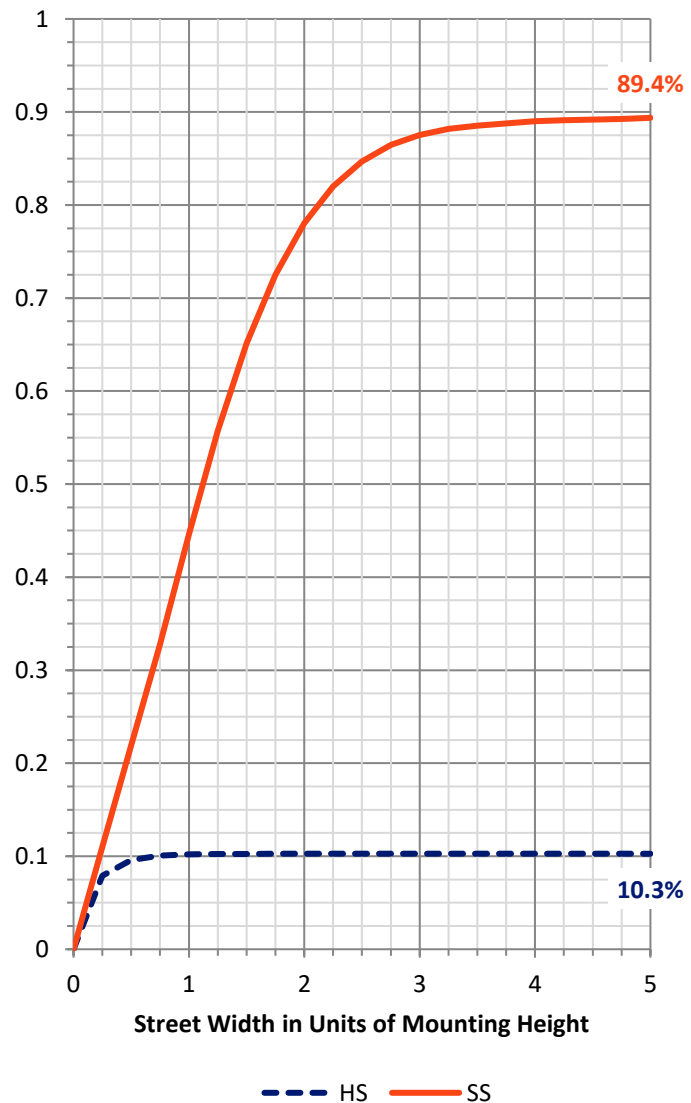
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	752.7	0.0	752.7
	% Fixture	10.4	0.0	10.4
<b>Street Side</b>	Lumens	6510.3	0.0	6510.3
	% Fixture	89.6	0.0	89.6
<b>Total</b>	Lumens	7262.9	0.0	7262.9
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.1	1.1
10°-20°	206.1	2.8
20°-30°	321.5	4.4
30°-40°	543.4	7.5
40°-50°	1055.5	14.5
50°-60°	1772.5	24.4
60°-70°	2115.3	29.1
70°-80°	1114.8	15.3
80°-90°	56.6	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°	7262.9	100.0
0°-180°	7262.9	100.0

**Coefficient of Utilization**



REPORT NUMBER: P265793

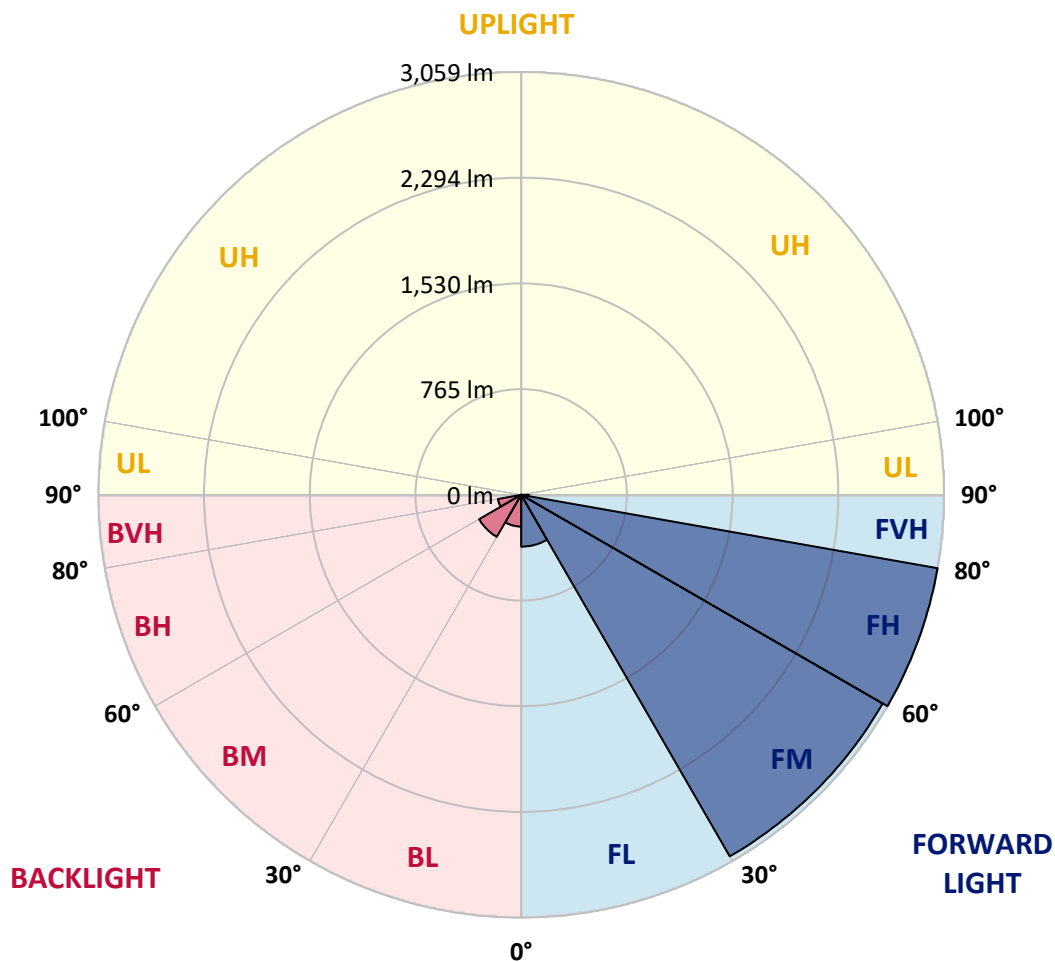
CATALOG NUMBER: ARCH-M-AF48-80-D-U-T3-7027-HSS

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	375.0	5.2			
FM	(30°-60°)	3020.0	41.6			
FH	(60°-80°)	3059.2	42.1			G2/5000
FVH	(80°-90°)	56.1	0.8			G1/100
BL	(0°-30°)	229.8	3.2	B1/500		
BM	(30°-60°)	351.5	4.8	B1/1000		
BH	(60°-80°)	170.9	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: P265793

CATALOG NUMBER: ARCH-M-AF48-80-D-U-T3-7027-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	820.8	820.8	820.8	820.8	820.8	820.8	820.8	820.8	820.8	820.8	820.8
2.5°	809.0	809.0	809.0	810.7	812.3	812.3	815.8	814.0	814.0	814.0	817.5
5°	786.9	788.6	790.4	793.7	800.5	805.6	814.0	814.0	815.8	819.2	820.8
7.5°	756.6	758.2	763.3	770.0	783.6	795.4	809.0	812.3	817.5	825.9	829.2
10°	737.9	741.3	748.1	756.6	771.7	786.9	804.0	809.0	824.3	839.5	847.9
12.5°	732.7	734.5	741.3	754.8	773.4	792.0	814.0	819.2	841.2	864.8	878.4
15°	741.3	743.0	746.3	761.7	783.6	807.2	836.1	842.8	869.9	897.0	913.9
17.5°	756.6	756.6	759.8	773.4	797.2	824.3	861.5	871.5	902.1	932.5	951.1
20°	766.7	766.7	771.7	785.3	812.3	847.9	891.8	905.4	939.3	973.1	990.0
22.5°	776.9	778.6	783.6	798.9	829.2	878.4	929.1	942.7	981.6	1017.2	1034.0
25°	805.6	804.0	805.6	819.2	854.6	915.6	980.0	996.8	1037.5	1076.3	1084.9
27.5°	885.1	881.7	859.8	851.4	878.4	954.4	1044.2	1061.2	1108.6	1147.5	1147.5
30°	1067.9	1061.2	1007.0	937.7	915.6	990.0	1105.2	1128.8	1189.7	1223.6	1213.5
32.5°	1299.8	1284.5	1215.1	1096.7	1008.6	1037.5	1169.5	1196.5	1274.3	1303.3	1281.2
35°	1553.7	1551.9	1465.7	1313.3	1188.1	1135.5	1252.3	1284.5	1382.8	1408.2	1372.6
37.5°	1822.8	1829.5	1771.9	1562.2	1414.9	1296.4	1362.4	1399.6	1519.8	1550.2	1516.3
40°	2122.2	2120.5	2098.6	1849.8	1687.3	1524.9	1521.5	1555.3	1700.9	1748.3	1700.9
42.5°	2501.4	2497.9	2418.4	2195.1	2017.4	1822.8	1753.3	1765.2	1927.7	2005.6	1936.1
45°	2887.2	2863.5	2772.2	2579.3	2421.9	2191.7	2059.6	2059.6	2198.4	2305.1	2196.7
47.5°	3102.1	3078.5	3041.3	2934.7	2887.2	2630.0	2435.3	2411.7	2520.0	2628.4	2476.0
50°	3384.9	3384.9	3291.7	3251.1	3332.4	3151.3	2850.1	2826.3	2878.8	2965.1	2765.4
52.5°	3608.2	3567.6	3501.7	3537.2	3769.0	3686.0	3264.7	3218.9	3259.6	3281.6	3017.5
55°	3701.3	3662.4	3657.3	3787.7	4146.4	4031.4	3689.5	3648.8	3645.5	3537.2	3237.6
57.5°	3719.9	3686.0	3750.5	3979.0	4513.8	4314.0	4112.6	4082.1	3987.3	3716.6	3462.6
60°	3562.6	3579.4	3735.2	4083.9	4730.4	4559.3	4469.6	4437.5	4219.2	3868.9	3713.1
62.5°	3239.3	3279.9	3571.0	4093.9	4650.7	4659.1	4667.8	4645.8	4398.6	4007.7	3965.4
65°	2856.8	2868.6	3218.9	3953.5	4511.9	4628.7	4813.3	4811.5	4535.7	4163.4	4249.7
67.5°	2354.2	2374.5	2677.4	3479.7	4234.4	4615.2	5004.5	4999.3	4691.4	4341.1	4418.9
70°	1751.7	1777.0	2022.4	2706.1	3615.0	4446.0	5254.9	5258.4	4855.6	4476.4	4302.2
71°	1365.9	1411.4	1668.7	2298.4	3298.5	4275.0	5278.7	5309.2	4874.2	4457.8	4061.9
72.5°	670.1	724.4	1047.7	1617.9	2714.7	3892.5	5122.9	5182.2	4757.5	4225.9	3472.8
75°	174.4	184.5	313.1	661.7	1455.4	2579.3	4131.2	4281.9	3889.2	3217.3	2122.2
77.5°	110.0	113.4	147.2	257.3	544.9	980.0	2427.0	2501.4	2222.1	1629.9	748.1
80°	77.9	79.5	93.1	165.8	318.2	286.0	873.3	905.4	804.0	431.5	133.7
82.5°	47.4	47.4	67.7	106.5	196.3	155.6	230.1	245.3	216.6	120.2	43.9
85°	27.0	28.7	42.3	72.8	93.1	76.1	86.2	91.4	93.1	79.5	18.7
87.5°	22.0	23.6	37.2	60.9	50.8	37.2	37.2	38.9	40.7	47.4	8.4
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: P265793

CATALOG NUMBER: ARCH-M-AF48-80-D-U-T3-7027-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	820.8	820.8	820.8	820.8	820.8	820.8	820.8	820.8	820.8	820.8	820.8
2.5°	817.5	817.5	819.2	817.5	817.5	817.5	819.2	819.2	819.2	822.5	824.3
5°	820.8	820.8	820.8	819.2	817.5	817.5	820.8	822.5	822.5	827.6	827.6
7.5°	829.2	829.2	825.9	822.5	819.2	814.0	815.8	817.5	815.8	817.5	817.5
10°	847.9	847.9	842.8	836.1	825.9	810.7	790.4	764.9	741.3	732.7	729.5
12.5°	878.4	876.7	866.5	854.6	832.6	780.2	704.0	614.4	539.9	519.6	512.8
15°	912.1	908.8	897.0	876.7	817.5	678.7	519.6	404.4	333.5	316.6	313.1
17.5°	947.7	942.7	925.8	885.1	748.1	504.4	335.1	254.0	215.0	211.6	213.3
20°	985.0	978.3	954.4	868.2	604.2	336.8	216.6	196.3	193.0	193.0	194.7
22.5°	1027.3	1018.9	986.7	807.2	440.0	223.4	186.2	184.5	182.7	181.1	181.1
25°	1076.3	1066.2	1017.2	697.3	303.0	182.7	177.8	172.7	169.2	165.8	164.2
27.5°	1135.5	1122.1	1040.9	561.9	208.1	170.9	167.5	159.1	152.4	145.5	145.5
30°	1194.8	1177.9	1034.0	423.1	169.2	159.1	152.4	142.1	132.1	125.3	123.5
32.5°	1257.4	1240.6	990.0	284.4	154.0	145.5	137.1	121.9	110.0	101.6	99.8
35°	1350.5	1336.9	903.8	187.8	138.8	128.6	116.8	101.6	86.2	77.9	76.1
37.5°	1489.3	1472.4	797.2	143.9	121.9	106.5	96.5	79.5	64.3	55.9	54.2
40°	1675.5	1624.8	670.1	126.9	106.5	88.0	74.5	57.5	45.8	40.7	40.7
42.5°	1892.1	1771.9	533.1	115.2	94.9	72.8	54.2	38.9	32.2	30.5	30.5
45°	2122.2	1909.1	396.1	106.5	83.0	57.5	38.9	27.0	23.6	22.0	22.0
47.5°	2359.3	2020.7	275.9	96.5	69.3	43.9	27.0	20.3	16.9	15.2	15.2
50°	2580.9	2093.5	194.7	86.2	59.3	32.2	20.3	15.2	11.9	11.9	11.9
52.5°	2735.0	2086.8	140.4	74.5	45.8	22.0	13.6	10.2	10.2	10.2	10.2
55°	2870.4	2061.4	110.0	64.3	35.6	15.2	10.2	8.4	8.4	6.7	6.7
57.5°	2985.4	2020.7	93.1	52.6	25.4	11.9	6.7	6.7	5.1	5.1	5.1
60°	3083.6	1970.0	77.9	43.9	16.9	8.4	5.1	3.4	3.4	1.6	3.4
62.5°	3217.3	1937.9	67.7	33.9	11.9	5.1	3.4	1.6	1.6	0.0	0.0
65°	3315.5	1876.9	57.5	23.6	6.7	3.4	1.6	1.6	0.0	0.0	0.0
67.5°	3318.9	1766.8	42.3	13.6	5.1	3.4	1.6	0.0	0.0	0.0	0.0
70°	3051.5	1506.3	27.0	6.7	3.4	1.6	1.6	0.0	0.0	0.0	0.0
71°	2806.0	1333.7	22.0	5.1	3.4	1.6	0.0	0.0	0.0	0.0	0.0
72.5°	2311.9	980.0	16.9	5.1	1.6	1.6	0.0	0.0	0.0	0.0	0.0
75°	1274.3	355.4	8.4	3.4	1.6	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	407.9	108.3	5.1	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	69.3	16.9	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	23.6	6.7	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	6.7	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.4	1.6	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)