

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: P257857

Luminaire Tested: **ARCH-M-AF48-150-D-U-T2U-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P257857
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-AF48-150-D-U-T2U-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 970mA 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: 12698.9 lumens
Efficiency: N/A
Efficacy: 84.1 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 - G2

Input Watts (W): 151
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

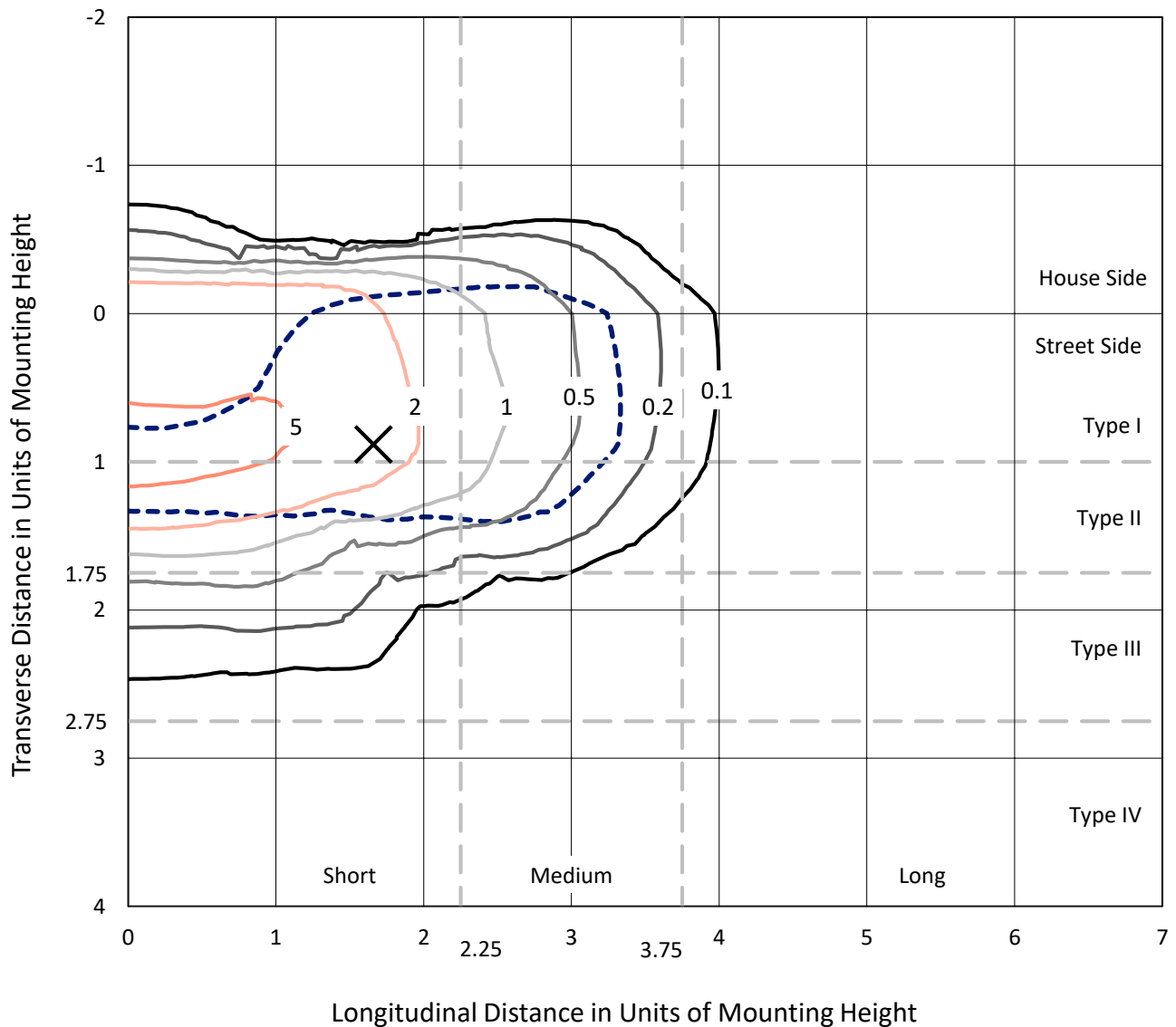


REPORT NUMBER: P257857

CATALOG NUMBER: ARCH-M-AF48-150-D-U-T2U-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

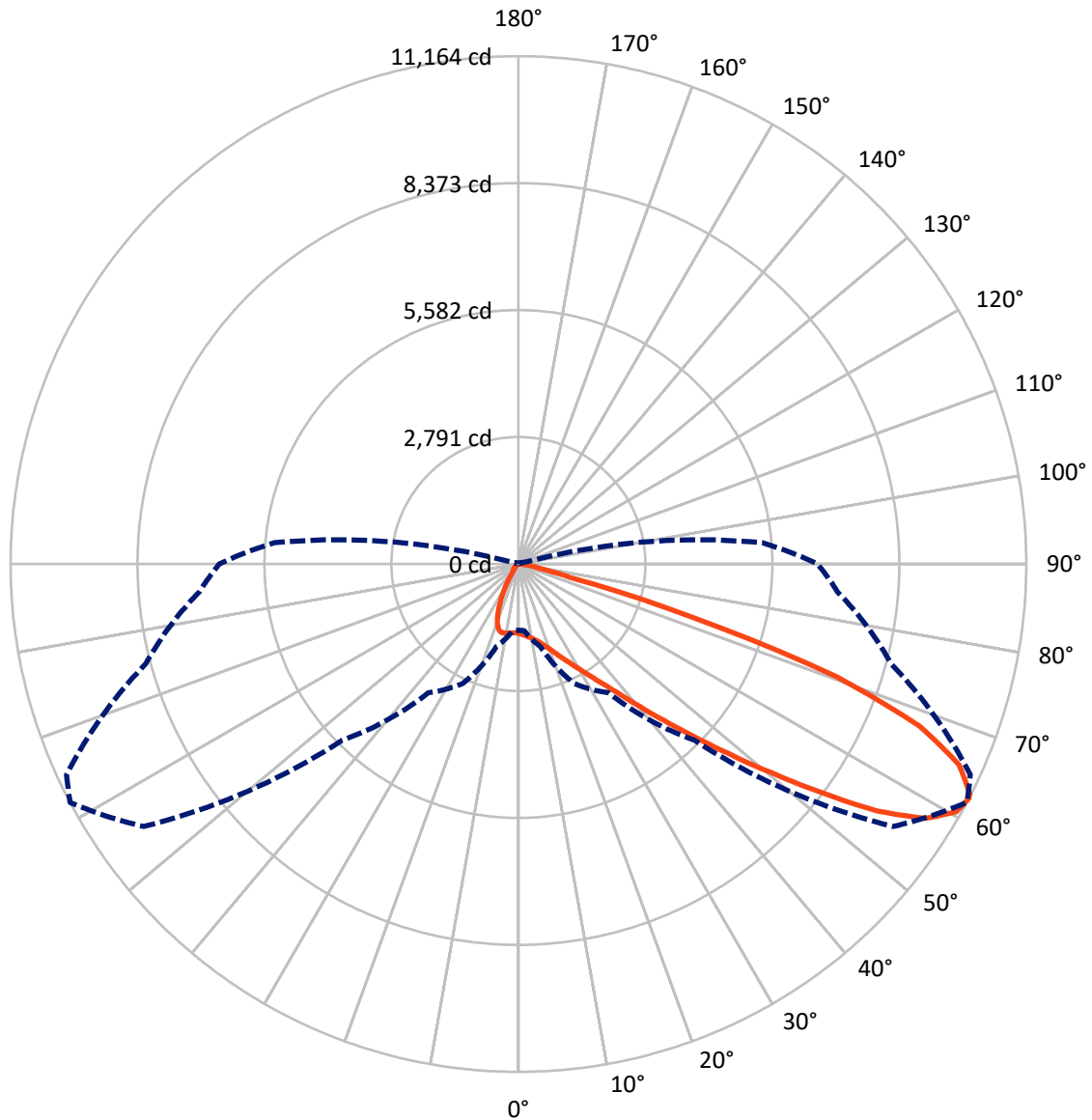


Based on 20 foot mounting height. Maximum calculated value = 7.3 fc
 Type II - Short - Full Cutoff

REPORT NUMBER: P257857

CATALOG NUMBER: ARCH-M-AF48-150-D-U-T2U-HSS

Luminous Intensity Polar Plot



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



REPORT NUMBER: P257857

CATALOG NUMBER: ARCH-M-AF48-150-D-U-T2U-HSS

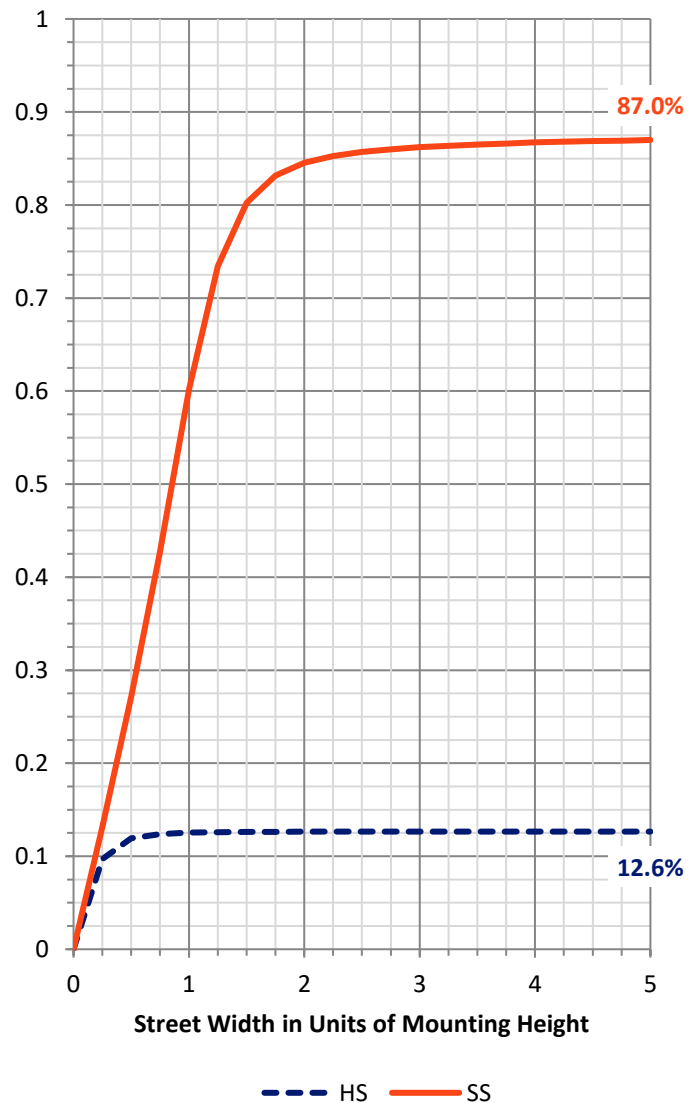
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1623.7	0.0	1623.7
	% Fixture	12.8	0.0	12.8
Street Side	Lumens	11075.2	0.0	11075.2
	% Fixture	87.2	0.0	87.2
Total	Lumens	12698.9	0.0	12698.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.2	1.2
10°-20°	411.1	3.2
20°-30°	690.4	5.4
30°-40°	1323.5	10.4
40°-50°	2703.3	21.3
50°-60°	3577.4	28.2
60°-70°	2779.0	21.9
70°-80°	1003.1	7.9
80°-90°	63.9	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°	12698.9	100.0
0°-180°	12698.9	100.0

Coefficient of Utilization



REPORT NUMBER: P257857

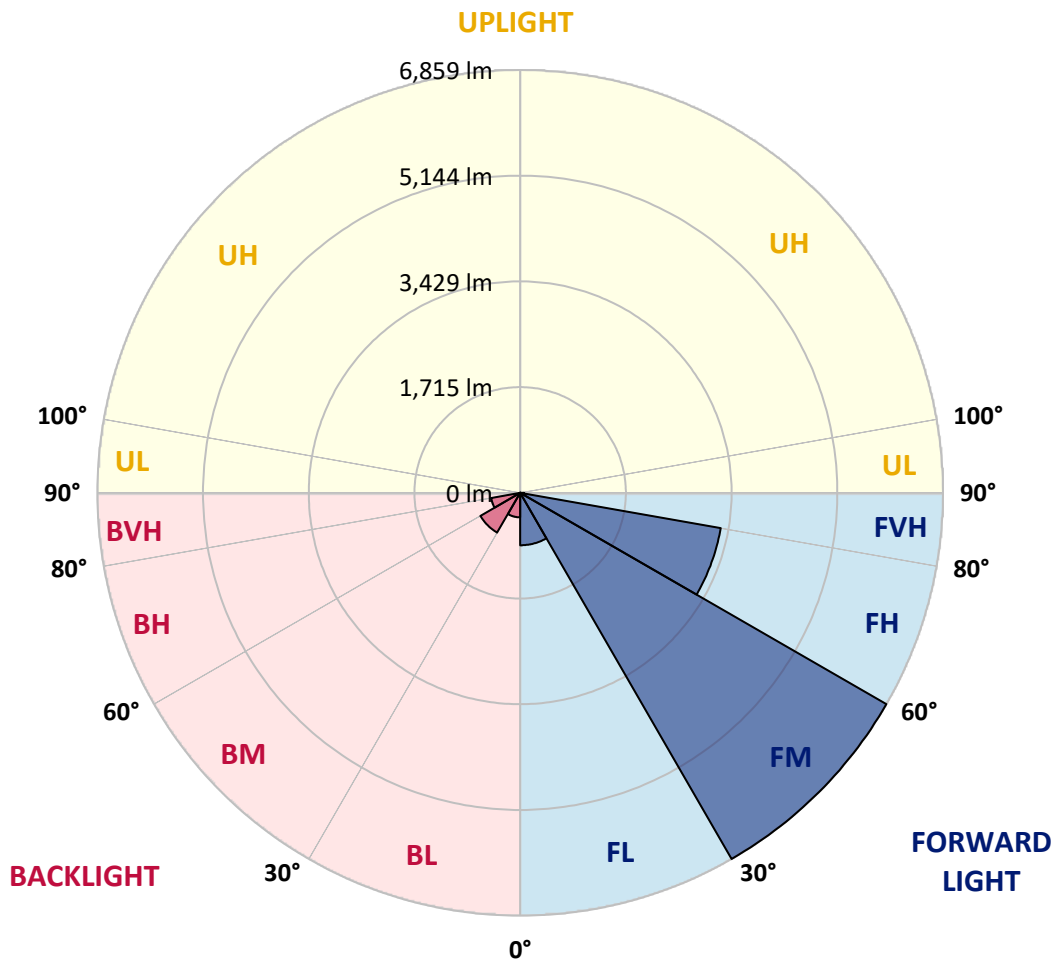
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	851.4	6.7			
FM	(30°-60°)	6858.7	54.0			
FH	(60°-80°)	3304.0	26.0			G2/5000
FVH	(80°-90°)	61.1	0.5			G1/100
BL	(0°-30°)	397.4	3.1	B1/500		
BM	(30°-60°)	745.4	5.9	B1/1000		
BH	(60°-80°)	478.1	3.8	B1/500		G1/500
BVH	(80°-90°)	2.8	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 II Short





REPORT NUMBER: P257857

CATALOG NUMBER: ARCH-M-AF48-150-D-U-T2U-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	62°	65°	75°	85°
0°	1529.7	1529.7	1529.7	1529.7	1529.7	1529.7	1529.7	1529.7	1529.7	1529.7	1529.7
2.5°	1570.3	1567.3	1564.1	1560.9	1560.9	1557.9	1554.7	1548.4	1542.2	1536.0	1532.9
5°	1598.5	1595.3	1592.2	1595.3	1592.2	1592.2	1589.1	1582.8	1576.6	1567.3	1557.9
7.5°	1620.3	1617.2	1614.0	1617.2	1620.3	1623.4	1626.5	1620.3	1617.2	1604.7	1595.3
10°	1648.4	1645.2	1642.1	1648.4	1648.4	1664.0	1667.1	1664.0	1660.9	1651.6	1635.9
12.5°	1689.0	1692.1	1692.1	1698.3	1704.5	1723.3	1729.5	1720.2	1720.2	1707.7	1689.0
15°	1763.9	1763.9	1763.9	1770.1	1773.3	1798.2	1804.5	1795.1	1801.3	1779.5	1760.8
17.5°	1835.7	1838.9	1845.1	1857.6	1857.6	1879.4	1891.8	1891.8	1904.4	1876.3	1851.3
20°	1907.5	1910.7	1920.0	1948.1	1948.1	1976.1	1998.0	2007.4	2019.9	1991.8	1948.1
22.5°	1985.5	1985.5	2001.2	2044.9	2035.5	2091.7	2132.2	2147.9	2160.4	2122.9	2054.2
25°	2104.2	2091.7	2104.2	2144.8	2138.5	2216.5	2291.5	2307.1	2322.7	2279.0	2176.0
27.5°	2329.0	2310.2	2266.6	2269.6	2269.6	2360.2	2466.3	2488.2	2497.5	2460.1	2332.1
30°	2778.5	2778.5	2616.2	2506.9	2435.1	2516.3	2666.1	2703.6	2716.0	2659.9	2491.3
32.5°	3562.1	3562.1	3262.4	2984.6	2713.0	2713.0	2884.7	2953.4	2965.8	2900.3	2703.6
35°	4561.1	4554.9	4105.3	3724.5	3193.8	2994.0	3140.7	3256.2	3293.6	3206.2	2978.3
37.5°	5622.6	5582.0	5098.1	4661.1	3933.7	3443.5	3487.2	3640.2	3674.5	3602.7	3334.2
40°	6484.3	6437.4	6047.2	5681.9	4889.0	4161.6	3986.7	4127.2	4167.8	4067.9	3758.8
42.5°	7264.8	7149.2	6880.8	6618.5	5987.8	5404.0	4651.7	4707.9	4751.6	4645.4	4236.4
45°	7829.9	7651.9	7514.5	7433.4	7099.3	6768.4	5513.3	5401.0	5416.5	5285.5	4757.8
47.5°	7845.4	7720.5	7733.0	7945.4	8082.7	8070.2	6634.1	6234.5	6175.1	5956.6	5313.5
50°	7096.2	7167.9	7395.8	8001.5	8744.6	9194.1	7967.2	7221.0	7043.1	6649.7	5866.1
52.5°	5847.4	5959.8	6387.5	7408.3	8841.4	9934.0	9350.2	8348.1	8029.7	7336.6	6290.7
55°	4579.9	4586.1	5035.7	6075.3	8195.1	10068.3	10455.4	9587.5	9100.5	7857.9	6571.6
57.5°	3150.1	3321.7	3893.0	4592.3	6737.2	9400.2	10870.6	10549.1	9921.5	8179.5	6768.4
60°	2063.6	2073.0	2737.9	3546.6	4586.1	7648.7	10617.7	11057.9	10586.5	8369.9	6902.6
62°	1454.8	1470.4	1882.5	2897.2	3455.9	5482.1	10058.9	11164.1	10961.1	8482.3	7043.1
62.5°	1348.7	1361.1	1707.7	2734.9	3246.8	4917.0	9859.1	11139.1	11017.3	8519.7	7093.0
65°	989.7	989.7	1117.7	1879.4	2378.9	2656.8	8354.3	10642.7	10942.4	8819.5	7280.3
67.5°	764.9	771.1	814.8	1158.3	1795.1	1610.9	5332.2	9525.0	10161.9	9262.8	7386.5
70°	658.7	655.6	686.8	768.0	1295.6	1070.8	2347.7	7433.4	8510.4	9150.4	7289.8
72.5°	487.0	490.1	561.9	674.3	902.2	696.2	1061.4	3946.1	5519.5	7161.7	6247.0
75°	312.2	315.3	396.5	530.7	649.4	455.8	611.9	1177.0	2260.3	3971.1	3821.2
77.5°	209.2	215.4	259.1	371.5	568.1	284.1	384.0	493.3	680.6	1489.2	1370.5
80°	140.5	140.5	165.5	249.8	359.1	237.2	206.0	327.8	352.8	462.1	231.0
82.5°	93.7	93.7	109.3	165.5	234.2	212.3	124.9	178.0	206.0	231.0	81.1
85°	56.2	56.2	74.9	103.0	152.9	118.7	81.1	99.9	106.2	146.7	43.7
87.5°	34.4	31.2	49.9	71.8	81.1	71.8	53.1	53.1	56.2	81.1	21.9
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: P257857

CATALOG NUMBER: ARCH-M-AF48-150-D-U-T2U-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1529.7	1529.7	1529.7	1529.7	1529.7	1529.7	1529.7	1529.7	1529.7	1529.7	1529.7
2.5°	1526.7	1523.5	1520.4	1514.2	1504.8	1498.5	1492.3	1486.0	1479.8	1479.8	1489.2
5°	1554.7	1545.4	1532.9	1520.4	1501.7	1489.2	1479.8	1467.3	1461.1	1461.1	1464.1
7.5°	1589.1	1579.7	1557.9	1536.0	1507.9	1486.0	1464.1	1436.1	1414.2	1404.9	1414.2
10°	1626.5	1614.0	1582.8	1548.4	1517.2	1461.1	1389.3	1301.8	1226.9	1192.6	1208.2
12.5°	1673.3	1657.8	1620.3	1573.5	1501.7	1364.3	1186.3	983.4	855.4	796.1	808.5
15°	1742.1	1720.2	1667.1	1595.3	1436.1	1139.5	849.2	615.0	496.4	446.4	452.7
17.5°	1823.2	1795.1	1723.3	1589.1	1267.5	821.0	505.7	359.1	309.0	296.6	296.6
20°	1910.7	1873.1	1779.5	1542.2	1011.5	515.2	315.3	274.8	256.0	246.6	246.6
22.5°	2001.2	1951.2	1826.4	1432.9	721.2	321.5	259.1	231.0	209.2	199.8	199.8
25°	2110.4	2044.9	1873.1	1242.6	458.9	259.1	221.7	193.5	171.8	159.2	162.3
27.5°	2238.4	2154.1	1913.7	1005.3	296.6	224.7	184.2	156.1	137.4	131.1	131.1
30°	2372.6	2272.8	1923.1	752.4	240.4	193.5	152.9	128.0	115.5	109.3	109.3
32.5°	2556.9	2425.7	1895.0	499.5	203.0	162.3	128.0	106.2	96.8	93.7	93.7
35°	2800.3	2625.5	1829.4	309.0	171.8	134.2	106.2	93.7	84.3	81.1	81.1
37.5°	3109.5	2903.4	1714.0	212.3	146.7	109.3	90.5	81.1	74.9	71.8	71.8
40°	3521.5	3240.6	1564.1	184.2	124.9	93.7	78.1	71.8	65.6	65.6	65.6
42.5°	3958.6	3649.6	1370.5	162.3	106.2	81.1	68.6	62.4	59.3	56.2	56.2
45°	4436.2	4067.9	1130.2	143.6	90.5	71.8	62.4	53.1	49.9	49.9	49.9
47.5°	4910.8	4498.7	867.9	124.9	78.1	62.4	53.1	46.9	43.7	40.6	40.6
50°	5397.8	4889.0	636.9	109.3	68.6	56.2	46.9	40.6	34.4	31.2	31.2
52.5°	5750.6	5123.1	465.1	93.7	59.3	46.9	37.4	31.2	25.0	21.9	21.9
55°	6009.7	5266.7	340.3	78.1	53.1	40.6	31.2	25.0	18.7	18.7	15.7
57.5°	6212.7	5335.4	256.0	68.6	46.9	34.4	25.0	18.7	15.7	12.5	12.5
60°	6368.8	5338.5	190.5	56.2	40.6	28.1	18.7	12.5	9.4	9.4	9.4
62°	6574.8	5379.1	156.1	46.9	37.4	25.0	15.7	9.4	6.2	3.2	3.2
62.5°	6634.1	5394.7	149.9	46.9	34.4	21.9	12.5	9.4	6.2	3.2	3.2
65°	6908.8	5422.8	115.5	37.4	28.1	18.7	9.4	6.2	0.0	0.0	0.0
67.5°	7158.6	5379.1	84.3	28.1	21.9	12.5	9.4	3.2	0.0	0.0	0.0
70°	7133.6	5079.4	59.3	18.7	15.7	9.4	6.2	0.0	0.0	0.0	0.0
72.5°	5878.6	3802.5	40.6	15.7	9.4	6.2	3.2	0.0	0.0	0.0	0.0
75°	3549.6	1664.0	28.1	9.4	9.4	6.2	3.2	0.0	0.0	0.0	0.0
77.5°	1164.5	602.5	18.7	6.2	6.2	3.2	3.2	0.0	0.0	0.0	0.0
80°	190.5	99.9	9.4	6.2	6.2	3.2	3.2	0.0	0.0	0.0	0.0
82.5°	59.3	25.0	6.2	6.2	3.2	3.2	0.0	0.0	0.0	0.0	0.0
85°	21.9	9.4	6.2	6.2	3.2	3.2	0.0	0.0	0.0	0.0	0.0
87.5°	9.4	6.2	6.2	6.2	3.2	3.2	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)