

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: P231345

Luminaire Tested: **ARCH-M-AF48-140-D-U-T4W-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231345
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29625)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-140-D-U-T4W-7030-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 905mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11169 lumens
Efficiency: N/A
Efficacy: 79.2 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G3

Input Watts (W): 141
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

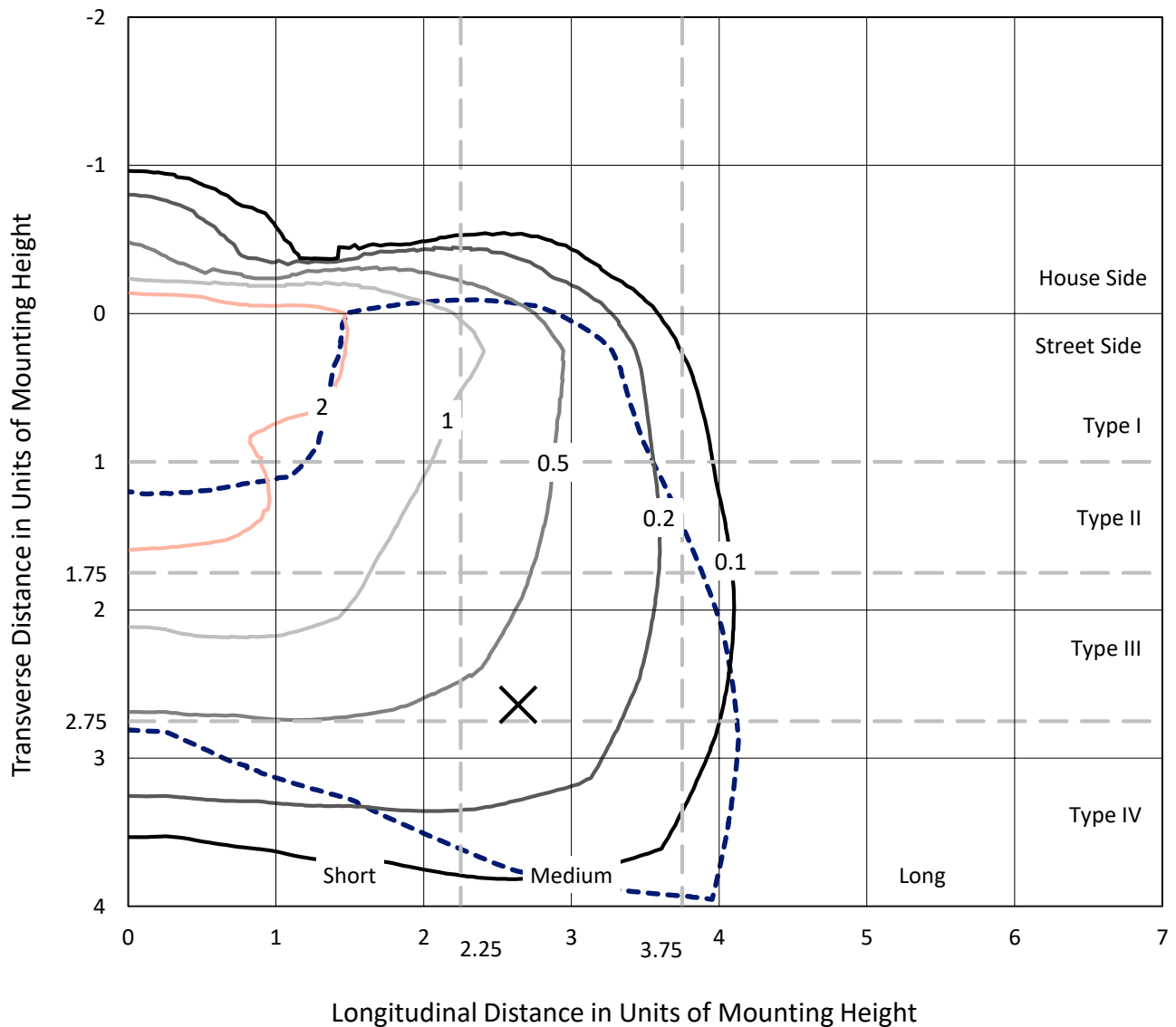


REPORT NUMBER: P231345

CATALOG NUMBER: ARCH-M-AF48-140-D-U-T4W-7030-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

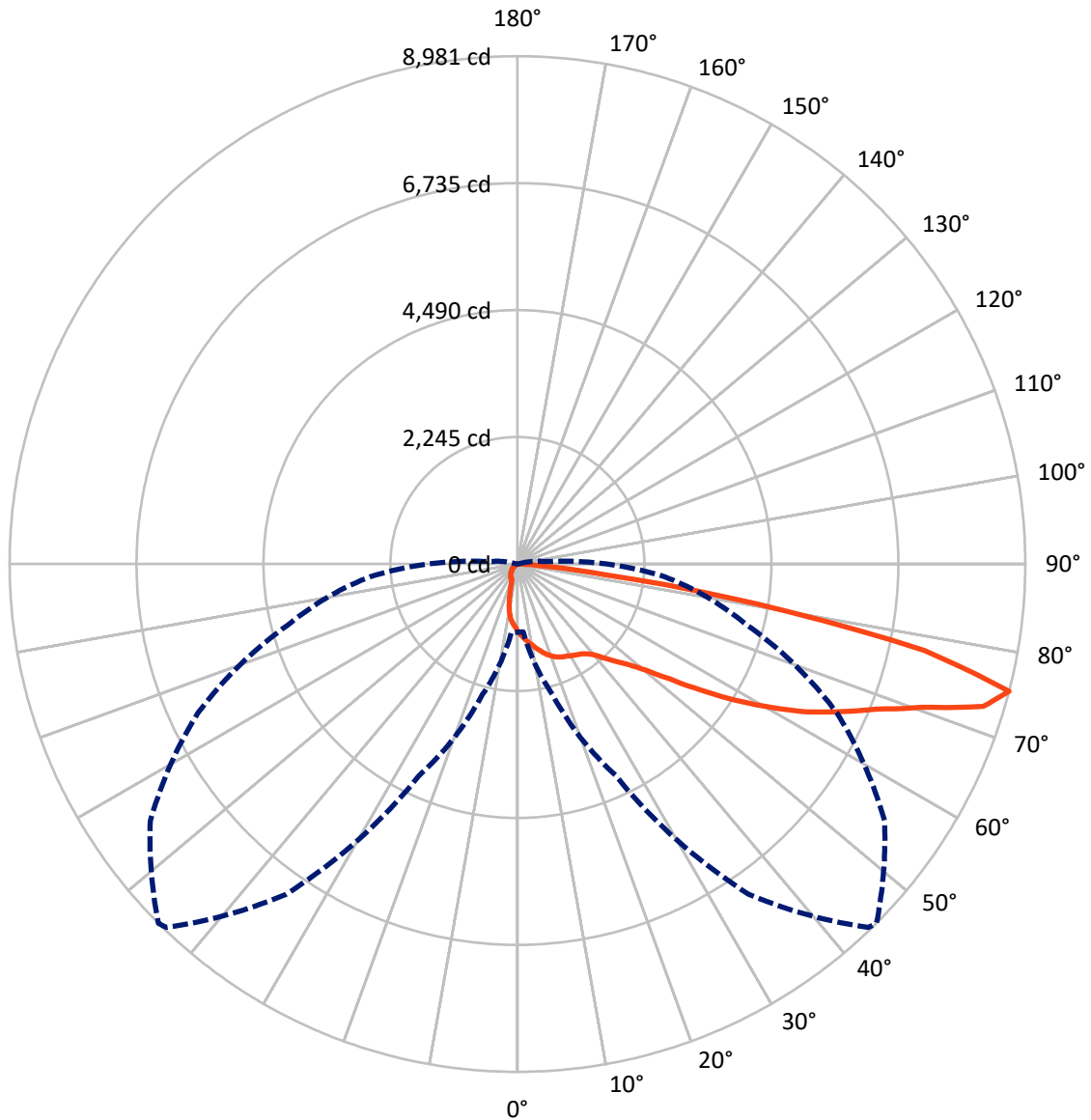


Based on 20 foot mounting height. Maximum calculated value = 4 fc
 Type IV - Medium - Non-Cutoff

REPORT NUMBER: P231345

CATALOG NUMBER: ARCH-M-AF48-140-D-U-T4W-7030-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

REPORT NUMBER: P231345

CATALOG NUMBER: ARCH-M-AF48-140-D-U-T4W-7030-HSS

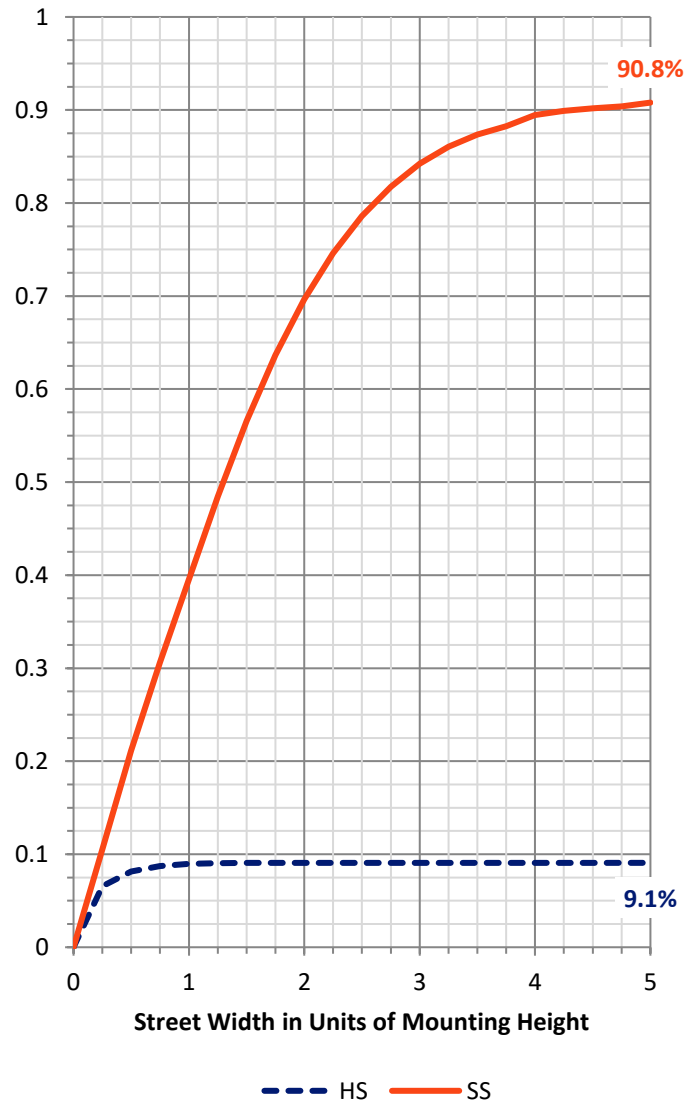
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1021.6	0.0	1021.6
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	10147.4	0.0	10147.4
	% Fixture	90.9	0.0	90.9
Total	Lumens	11169.0	0.0	11169.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	112.7	1.0
10°-20°	319.4	2.9
20°-30°	529.0	4.7
30°-40°	765.6	6.9
40°-50°	1253.6	11.2
50°-60°	2233.6	20.0
60°-70°	3283.6	29.4
70°-80°	2477.2	22.2
80°-90°	194.4	1.7
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°	11169.0	100.0
0°-180°	11169.0	100.0



REPORT NUMBER: P231345

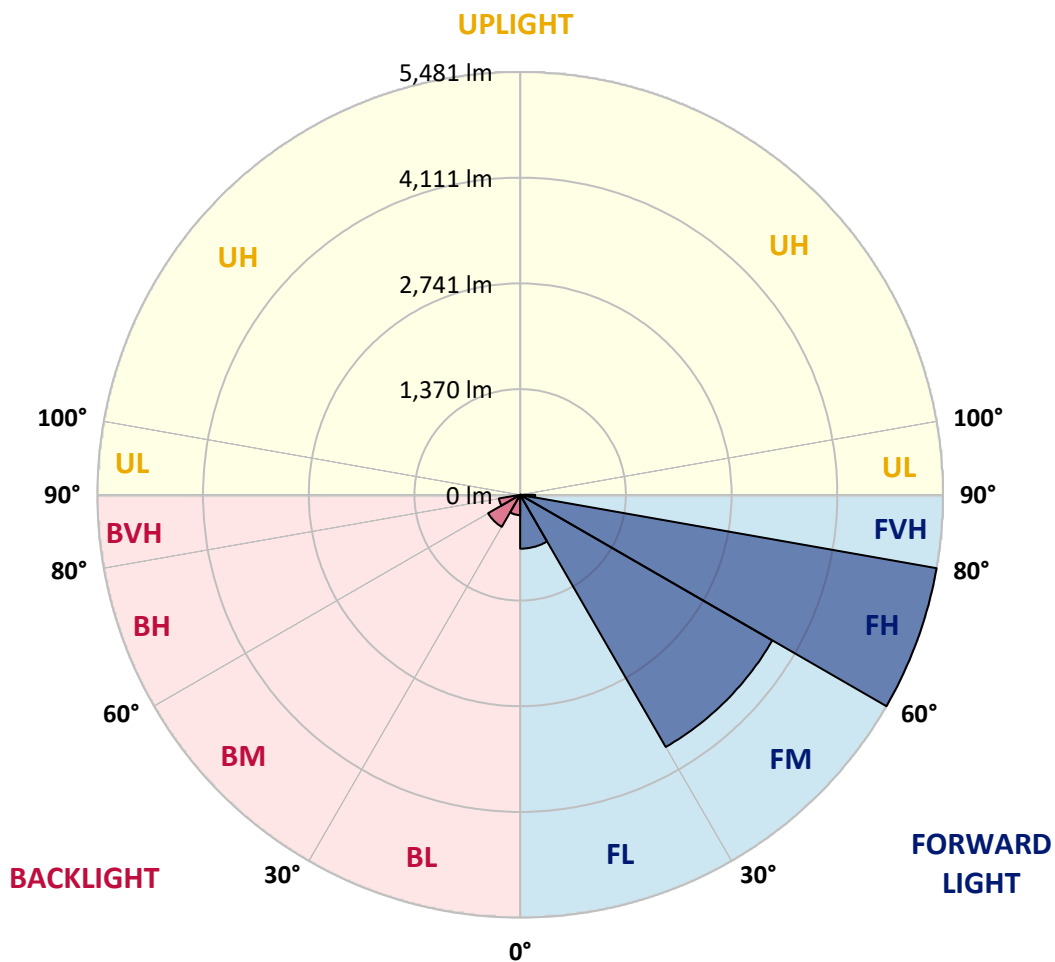
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	698.6	6.3			
FM	(30°-60°)	3773.9	33.8			
FH	(60°-80°)	5481.0	49.1			G3/7500
FVH	(80°-90°)	193.8	1.7			G2/225
BL	(0°-30°)	262.5	2.4	B1/500		
BM	(30°-60°)	478.7	4.3	B1/1000		
BH	(60°-80°)	279.8	2.5	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-G3

Type IV Medium





REPORT NUMBER: P231345

CATALOG NUMBER: ARCH-M-AF48-140-D-U-T4W-7030-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	1194.6	1194.6	1194.6	1194.6	1194.6	1194.6	1194.6	1194.6	1194.6	1194.6	1194.6
2.5°	1297.7	1297.7	1295.0	1292.4	1279.2	1265.9	1263.3	1255.4	1231.6	1215.7	1199.9
5°	1406.0	1408.7	1403.4	1390.2	1361.1	1332.0	1329.4	1308.2	1263.3	1231.6	1197.2
7.5°	1509.1	1514.4	1501.2	1477.4	1443.0	1400.7	1398.1	1358.4	1300.3	1255.4	1205.2
10°	1596.3	1596.3	1577.8	1548.7	1511.7	1466.8	1461.5	1416.6	1350.5	1295.0	1228.9
12.5°	1691.4	1688.8	1662.4	1622.7	1580.4	1538.2	1535.5	1480.0	1416.6	1345.2	1263.3
15°	1778.7	1773.4	1739.0	1702.0	1657.1	1612.2	1609.5	1554.0	1487.9	1403.4	1313.5
17.5°	1826.2	1823.6	1791.9	1754.9	1717.9	1683.5	1680.9	1622.7	1551.4	1464.2	1363.7
20°	1834.2	1836.8	1810.4	1778.7	1757.5	1739.0	1739.0	1686.2	1609.5	1517.0	1416.6
22.5°	1836.8	1844.7	1826.2	1783.9	1778.7	1781.3	1786.6	1744.3	1665.0	1577.8	1472.1
25°	1855.3	1865.9	1852.7	1802.4	1797.2	1815.7	1820.9	1802.4	1731.1	1643.9	1535.5
27.5°	1892.3	1902.9	1892.3	1828.9	1820.9	1839.4	1844.7	1855.3	1802.4	1707.3	1601.6
30°	1966.3	1969.0	1945.2	1865.9	1850.0	1873.8	1881.7	1910.8	1868.5	1768.1	1665.0
32.5°	2095.8	2069.4	1998.0	1892.3	1879.1	1905.5	1913.5	1945.2	1929.3	1826.2	1731.1
35°	2360.1	2222.7	2058.8	1929.3	1916.1	1942.5	1953.1	1998.0	2006.0	1908.2	1813.0
37.5°	2357.5	2233.2	2201.5	2000.7	1982.2	2000.7	2013.9	2069.4	2101.1	2016.5	1932.0
40°	2524.0	2471.1	2471.1	2135.5	2074.7	2101.1	2114.3	2169.8	2225.3	2159.2	2072.0
42.5°	3047.2	3012.9	2975.9	2394.5	2204.2	2278.2	2286.1	2320.5	2386.5	2365.4	2262.3
45°	3631.3	3599.6	3456.9	2833.2	2426.2	2439.4	2457.9	2513.4	2608.5	2648.2	2526.6
47.5°	4088.5	4056.8	3935.3	3361.8	2772.4	2656.1	2656.1	2764.5	2912.5	3012.9	2896.6
50°	4455.9	4418.9	4344.9	3924.7	3340.6	2968.0	2952.1	3079.0	3298.3	3454.3	3375.0
52.5°	4812.7	4704.3	4659.4	4506.1	3982.8	3419.9	3377.6	3467.5	3771.4	3964.3	3898.3
55°	5050.6	5034.7	4987.1	5040.0	4656.8	3969.6	3932.6	3951.1	4331.7	4461.2	4379.3
57.5°	5272.6	5269.9	5375.6	5621.4	5391.5	4598.6	4540.5	4511.4	4873.5	4841.8	4913.1
60°	5547.4	5499.8	5745.6	6097.1	6065.4	5211.8	5145.7	5087.6	5288.4	5198.6	5552.7
62.5°	5560.6	5547.4	6046.9	6551.7	6734.1	5835.5	5758.9	5550.1	5650.5	5547.4	6163.2
65°	5055.8	5121.9	6173.8	6792.2	7294.4	6382.6	6290.1	5965.0	5972.9	5904.2	6882.1
67.5°	4942.2	4976.6	5824.9	7051.2	7698.7	6934.9	6847.7	6443.4	6348.2	6353.5	7307.6
70°	4659.4	4712.3	5391.5	7032.7	8018.5	7672.3	7585.1	7146.4	6916.4	6660.1	6979.9
72.5°	3560.0	3649.8	4543.1	6165.9	7931.3	8637.0	8613.2	8037.0	7143.7	6115.6	5280.5
75°	1205.2	1202.5	2386.5	4141.4	7125.2	8933.0	8980.5	7926.0	6231.9	4218.0	2621.7
77.5°	259.0	261.6	491.6	1678.2	4733.4	7172.8	7355.2	5978.2	4019.8	1879.1	599.9
80°	126.9	129.5	203.5	444.0	1892.3	4022.5	4307.9	3073.7	1485.3	375.3	100.4
82.5°	63.4	66.1	105.7	235.2	700.4	1429.8	1527.6	1131.2	425.5	211.4	50.2
85°	23.8	23.8	52.9	140.1	319.8	335.6	412.3	327.7	256.4	171.8	13.2
87.5°	5.3	5.3	29.1	68.7	142.7	105.7	105.7	100.4	155.9	116.3	5.3
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: P231345

CATALOG NUMBER: ARCH-M-AF48-140-D-U-T4W-7030-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1194.6	1194.6	1194.6	1194.6	1194.6	1194.6	1194.6	1194.6	1194.6	1194.6	1194.6
2.5°	1191.9	1181.4	1162.9	1144.4	1131.2	1115.3	1107.4	1099.4	1096.8	1094.2	1099.4
5°	1178.7	1162.9	1128.5	1099.4	1073.0	1051.9	1036.0	1020.2	1012.2	1006.9	1009.6
7.5°	1178.7	1154.9	1104.7	1059.8	1017.5	972.6	927.7	893.3	866.9	851.0	853.7
10°	1191.9	1160.2	1094.2	1033.4	954.1	858.9	761.2	687.2	636.9	607.9	607.9
12.5°	1221.0	1178.7	1096.8	1001.7	866.9	700.4	552.4	462.5	425.5	404.4	407.0
15°	1260.7	1210.4	1110.0	959.4	745.3	520.6	385.9	327.7	327.7	333.0	335.6
17.5°	1305.6	1250.1	1120.6	895.9	589.4	372.6	303.9	298.6	306.6	319.8	319.8
20°	1350.5	1289.7	1125.9	795.5	441.4	296.0	288.1	288.1	293.4	306.6	309.2
22.5°	1406.0	1339.9	1120.6	671.3	330.4	280.1	277.5	277.5	277.5	293.4	293.4
25°	1464.2	1398.1	1099.4	539.1	280.1	269.6	266.9	264.3	264.3	277.5	280.1
27.5°	1530.2	1458.9	1049.2	412.3	264.3	259.0	256.4	251.1	251.1	261.6	261.6
30°	1596.3	1527.6	972.6	311.9	251.1	248.4	243.1	237.9	232.6	243.1	243.1
32.5°	1667.7	1598.9	872.2	248.4	232.6	232.6	229.9	222.0	216.7	222.0	224.6
35°	1762.8	1680.9	758.5	216.7	208.8	208.8	208.8	206.1	195.6	200.9	200.9
37.5°	1889.7	1794.5	626.4	200.9	190.3	185.0	185.0	185.0	177.1	179.7	179.7
40°	2050.9	1926.7	499.5	187.6	177.1	163.9	158.6	161.2	155.9	155.9	153.3
42.5°	2270.2	2069.4	375.3	177.1	166.5	148.0	137.4	134.8	129.5	126.9	126.9
45°	2584.7	2243.8	269.6	166.5	158.6	129.5	118.9	111.0	97.8	89.9	89.9
47.5°	2991.7	2442.0	200.9	155.9	150.6	113.6	100.4	84.6	66.1	60.8	60.8
50°	3488.6	2664.0	169.1	140.1	137.4	100.4	79.3	55.5	37.0	31.7	34.4
52.5°	3972.3	2872.8	150.6	124.2	121.6	87.2	58.1	29.1	15.9	15.9	15.9
55°	4379.3	3020.8	137.4	111.0	105.7	68.7	31.7	13.2	7.9	7.9	7.9
57.5°	4746.6	3105.4	124.2	97.8	84.6	47.6	13.2	5.3	5.3	2.6	2.6
60°	5082.3	3155.6	108.4	84.6	66.1	26.4	5.3	2.6	2.6	0.0	0.0
62.5°	5412.6	3192.6	92.5	68.7	50.2	10.6	2.6	2.6	0.0	0.0	0.0
65°	5663.7	3179.4	74.0	55.5	31.7	5.3	2.6	0.0	0.0	0.0	0.0
67.5°	5655.8	2999.7	55.5	42.3	15.9	2.6	0.0	0.0	0.0	0.0	0.0
70°	5058.5	2526.6	37.0	26.4	5.3	2.6	0.0	0.0	0.0	0.0	0.0
72.5°	3589.0	1620.1	23.8	15.9	2.6	0.0	0.0	0.0	0.0	0.0	0.0
75°	1580.4	491.6	13.2	7.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	309.2	113.6	7.9	5.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	74.0	13.2	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	31.7	5.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	7.9	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	5.3	2.6	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)