

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: P234746

Luminaire Tested: **ARCH-AF24-50-D-U-T4W-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234746
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29615)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-AF24-50-D-U-T4W-8027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 670mA LIGHT ENGINE WITH 24 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5113 lumens
Efficiency: N/A
Efficacy: 94.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 54
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

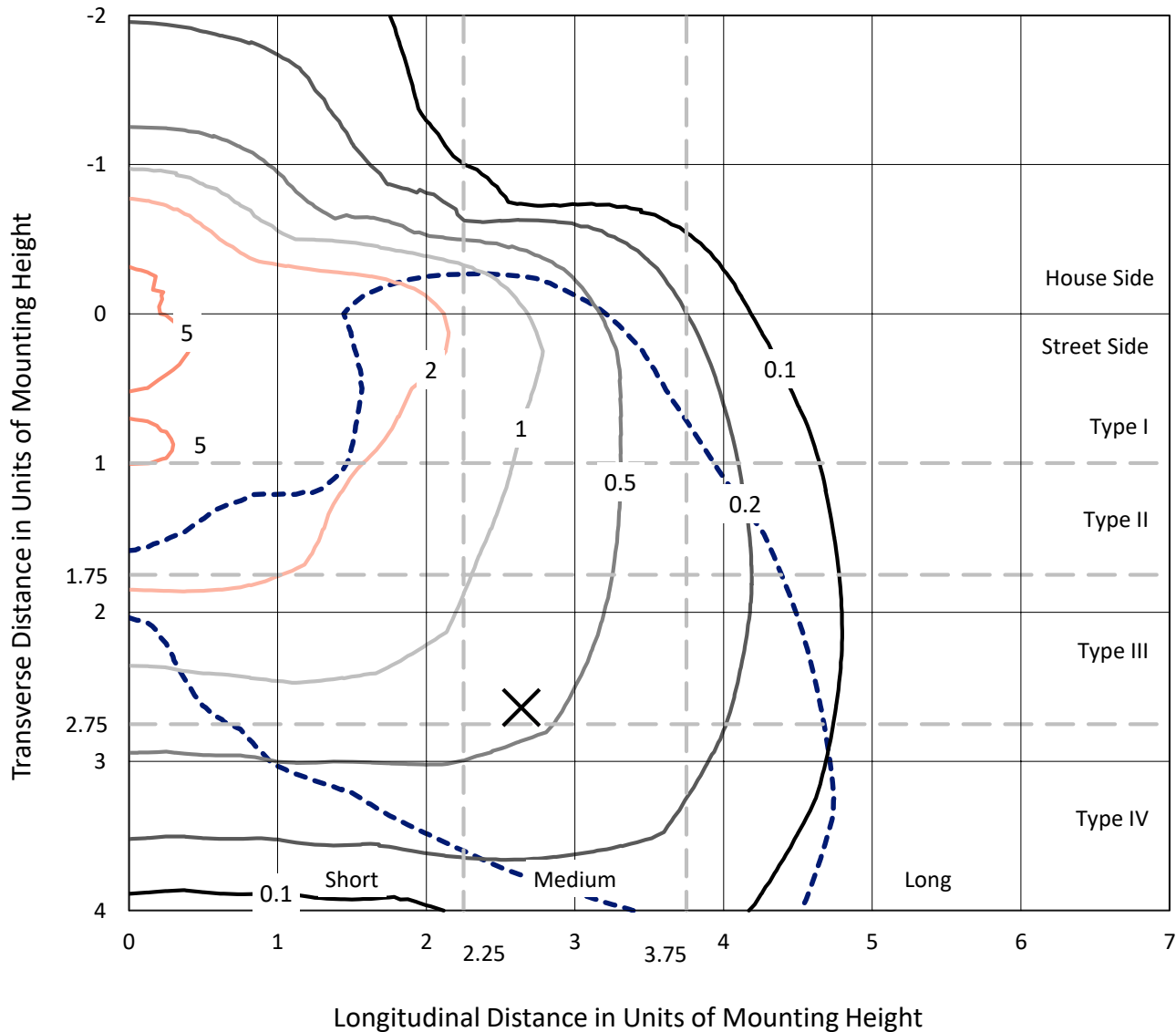


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

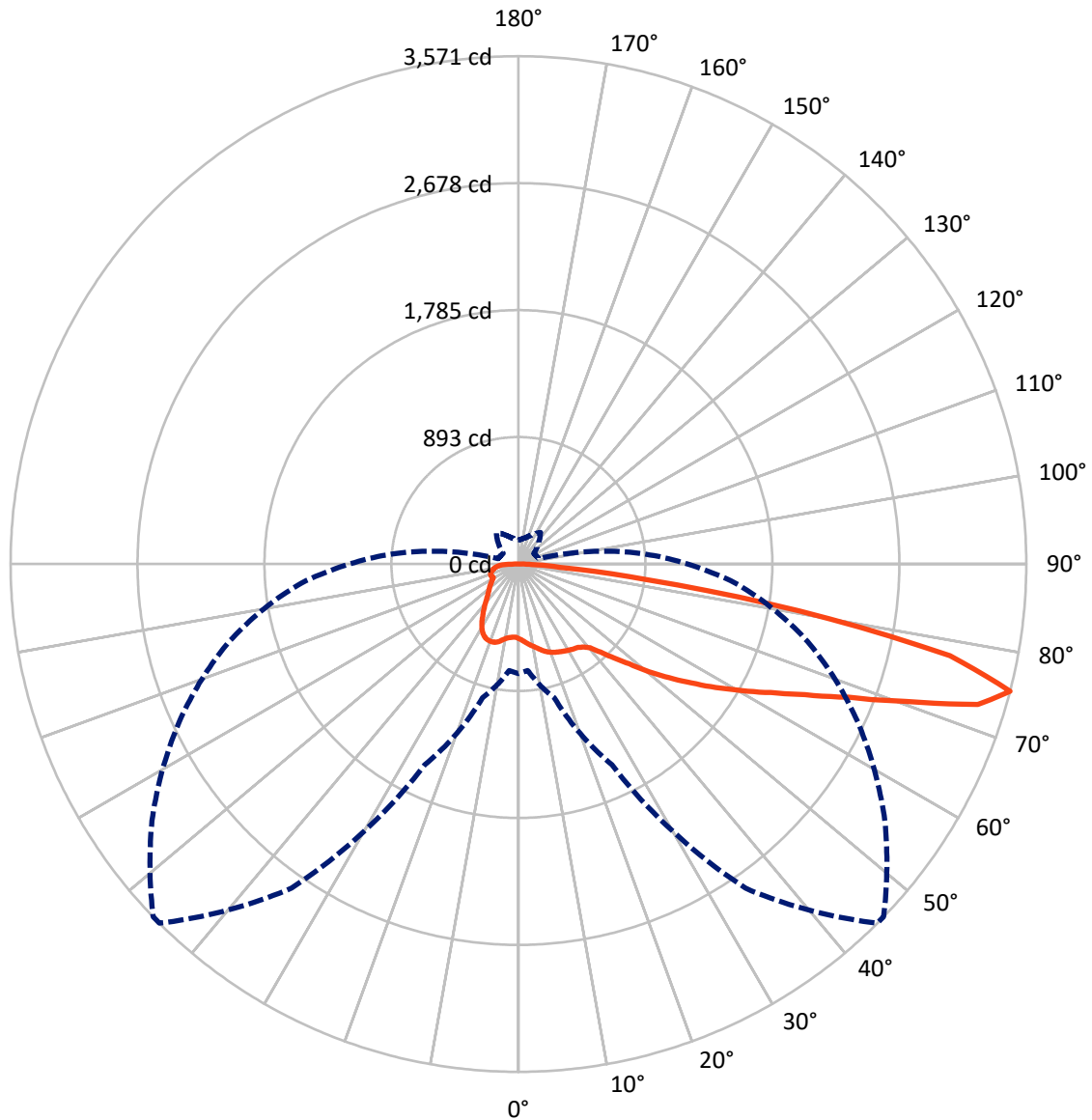


Based on 10 foot mounting height. Maximum calculated value = 6.1 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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



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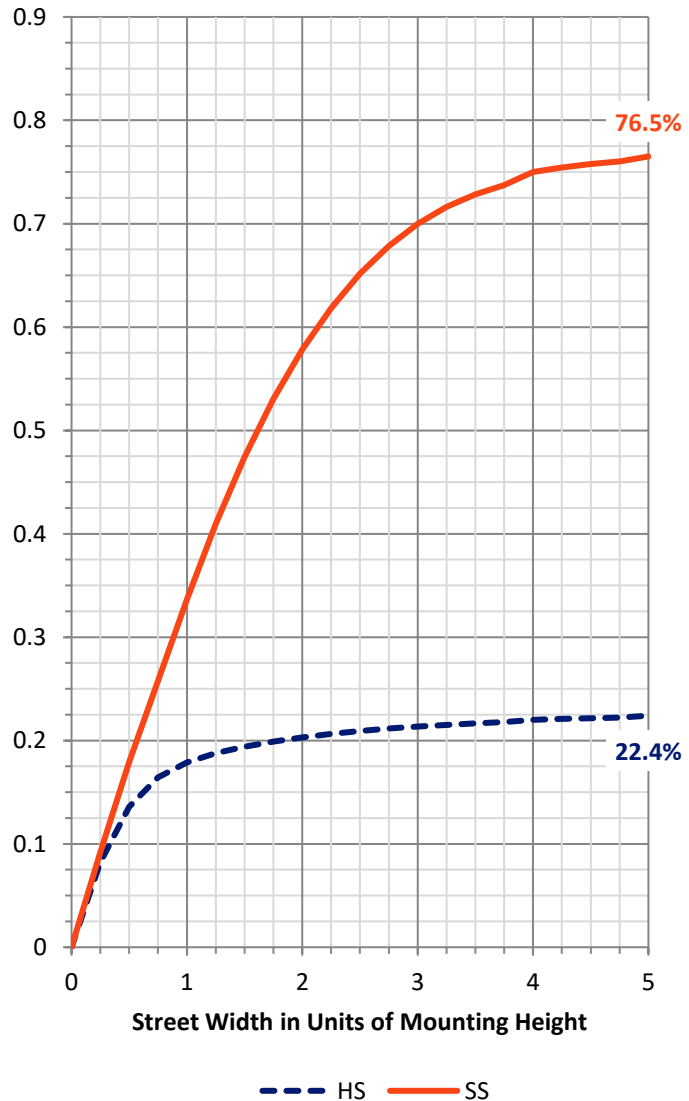
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1184.5	0.0	1184.5
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	3928.5	0.0	3928.5
	% Fixture	76.8	0.0	76.8
Total	Lumens	5113.0	0.0	5113.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.9	1.0
10°-20°	168.3	3.3
20°-30°	288.9	5.6
30°-40°	404.0	7.9
40°-50°	592.6	11.6
50°-60°	923.1	18.1
60°-70°	1328.3	26.0
70°-80°	1157.1	22.6
80°-90°	198.7	3.9
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°	5113.0	100.0
0°-180°	5113.0	100.0

Coefficient of Utilization



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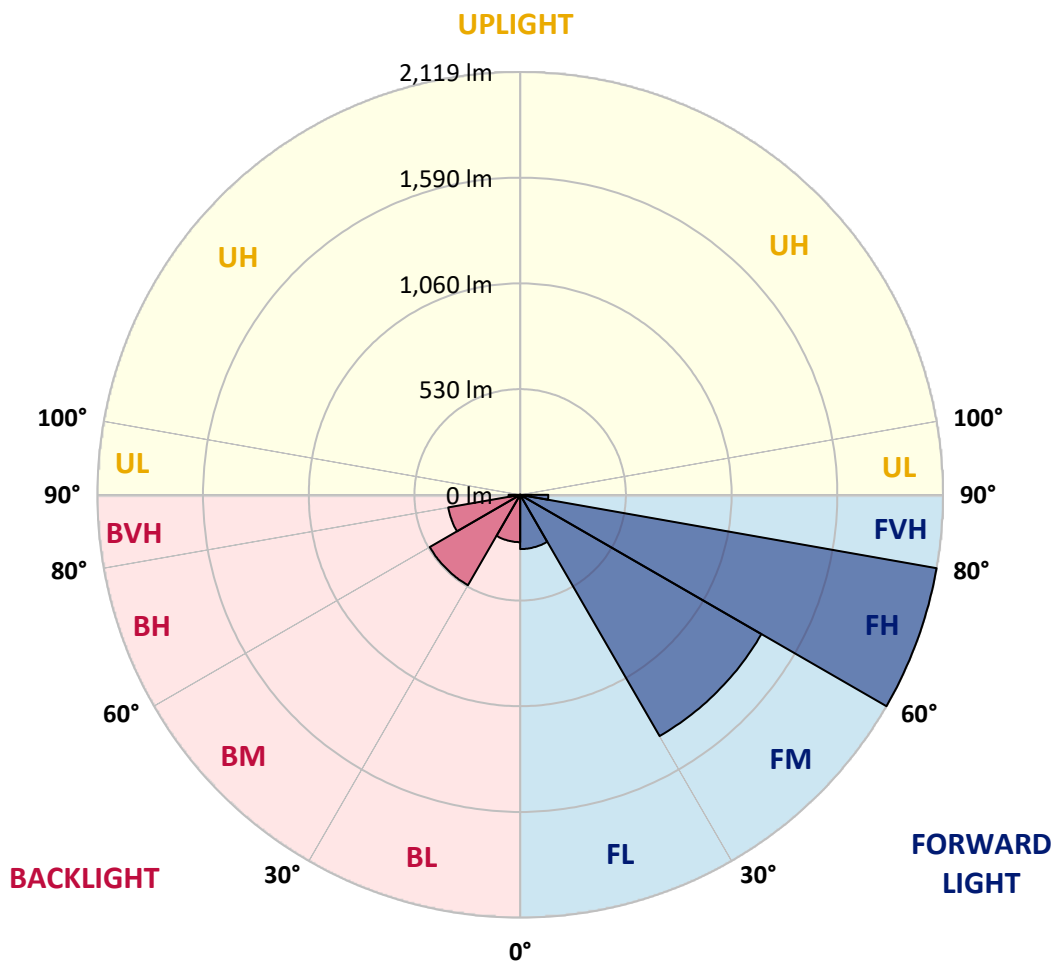
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	271.9	5.3			
FM	(30°-60°)	1396.3	27.3			
FH	(60°-80°)	2119.4	41.5			G2/5000
FVH	(80°-90°)	141.0	2.8			G2/225
BL	(0°-30°)	237.2	4.6	B1/500		
BM	(30°-60°)	523.5	10.2	B1/1000		
BH	(60°-80°)	366.0	7.2	B1/500		G1/500
BVH	(80°-90°)	57.7	1.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	524.2	524.2	524.2	524.2	524.2	524.2	524.2	524.2	524.2	524.2	524.2
2.5°	550.0	546.0	546.0	543.1	543.1	538.1	536.1	535.1	530.1	527.1	524.2
5°	581.8	576.9	575.9	568.9	565.9	555.0	554.0	547.0	538.1	529.1	522.2
7.5°	610.7	607.7	602.7	595.8	586.8	572.9	571.9	561.0	546.0	534.1	524.2
10°	631.6	629.6	622.6	613.7	603.7	589.8	588.8	576.9	559.0	545.0	531.1
12.5°	656.4	653.5	644.5	632.6	621.6	608.7	607.7	597.8	577.9	560.0	542.1
15°	680.3	676.3	665.4	653.5	641.5	630.6	630.6	619.6	598.8	577.9	557.0
17.5°	692.2	690.3	679.3	666.4	656.4	648.5	647.5	637.5	616.7	594.8	571.9
20°	696.2	697.2	687.3	673.3	666.4	662.4	661.4	654.4	631.6	610.7	588.8
22.5°	695.2	698.2	690.3	675.3	673.3	673.3	673.3	665.4	647.5	626.6	604.7
25°	699.2	703.2	697.2	679.3	679.3	683.3	683.3	679.3	663.4	645.5	623.6
27.5°	713.1	716.1	711.1	686.3	687.3	693.2	692.2	693.2	683.3	666.4	644.5
30°	730.0	734.0	728.0	697.2	696.2	702.2	702.2	707.2	700.2	682.3	664.4
32.5°	775.8	774.8	755.9	709.2	706.2	712.1	712.1	717.1	713.1	699.2	682.3
35°	912.0	897.1	855.4	747.9	718.1	721.1	721.1	730.0	732.0	721.1	706.2
37.5°	1051.3	1046.3	1014.5	851.4	761.9	740.0	739.0	751.9	760.9	751.9	742.0
40°	1191.5	1187.6	1180.6	989.6	853.4	773.8	770.8	781.8	797.7	791.7	785.7
42.5°	1321.8	1319.8	1326.8	1125.9	969.7	846.4	837.5	824.5	847.4	845.4	845.4
45°	1424.3	1429.2	1433.2	1253.2	1096.1	939.9	929.0	885.2	916.0	924.0	930.0
47.5°	1482.0	1485.9	1499.9	1377.5	1222.4	1048.3	1040.4	968.7	1009.5	1033.4	1050.3
50°	1564.5	1553.6	1565.5	1498.9	1374.5	1189.5	1167.7	1081.1	1132.9	1174.6	1214.4
52.5°	1644.1	1626.2	1636.1	1639.1	1547.6	1327.8	1304.9	1213.4	1278.1	1343.7	1414.3
55°	1715.7	1714.7	1724.6	1775.4	1714.7	1476.0	1450.1	1359.6	1453.1	1523.7	1643.1
57.5°	1773.4	1783.3	1827.1	1933.5	1907.6	1637.1	1608.3	1529.7	1640.1	1710.7	1908.6
60°	1841.0	1856.9	1929.5	2067.8	2083.7	1806.2	1776.4	1719.7	1832.1	1903.7	2216.0
62.5°	1863.9	1886.8	2035.9	2209.0	2267.7	1991.2	1964.3	1926.5	2034.0	2098.6	2522.3
65°	1711.7	1755.5	2094.6	2281.6	2465.6	2214.0	2191.1	2158.3	2234.9	2277.6	2730.2
67.5°	1669.9	1689.8	1980.3	2386.0	2651.6	2500.4	2477.6	2420.9	2422.8	2404.9	2797.8
70°	1611.3	1633.1	1862.9	2464.6	2918.2	2892.3	2864.5	2697.4	2594.9	2486.5	2664.5
72.5°	1372.6	1365.6	1605.3	2252.8	3046.5	3377.7	3344.8	2994.7	2722.2	2415.9	2248.8
75°	770.8	750.9	973.7	1558.5	2781.9	3570.6	3569.6	3144.9	2632.7	2104.6	1530.7
77.5°	223.8	217.8	321.3	653.5	1872.8	3102.2	3140.0	2836.6	2197.1	1511.8	840.4
80°	105.4	107.4	138.2	215.8	799.7	2002.1	2110.5	1867.9	1312.9	697.2	347.1
82.5°	66.6	67.6	94.5	139.2	338.2	909.1	998.6	840.4	520.2	301.4	153.2
85°	41.8	41.8	62.7	91.5	201.9	290.4	315.3	286.4	222.8	164.1	83.5
87.5°	22.9	22.9	37.8	52.7	110.4	93.5	96.5	114.4	139.2	100.5	41.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	524.2	524.2	524.2	524.2	524.2	524.2	524.2	524.2	524.2	524.2	524.2
2.5°	523.2	521.2	518.2	517.2	516.2	515.2	516.2	518.2	516.2	516.2	517.2
5°	520.2	518.2	514.2	514.2	515.2	516.2	521.2	524.2	525.1	525.1	525.1
7.5°	520.2	517.2	514.2	515.2	517.2	521.2	529.1	534.1	538.1	539.1	539.1
10°	525.1	521.2	519.2	521.2	527.1	530.1	538.1	546.0	551.0	553.0	553.0
12.5°	534.1	530.1	530.1	534.1	542.1	546.0	553.0	559.0	564.9	567.9	567.9
15°	549.0	544.0	545.0	552.0	561.0	564.9	569.9	571.9	576.9	580.8	580.8
17.5°	562.9	558.0	560.0	567.9	573.9	575.9	578.9	577.9	579.9	582.8	583.8
20°	578.9	573.9	574.9	579.9	580.8	578.9	578.9	575.9	574.9	579.9	581.8
22.5°	594.8	589.8	588.8	585.8	580.8	575.9	572.9	569.9	567.9	572.9	574.9
25°	613.7	606.7	601.7	588.8	575.9	566.9	562.9	561.0	560.0	564.9	566.9
27.5°	634.6	627.6	612.7	584.8	563.9	549.0	546.0	546.0	548.0	551.0	553.0
30°	654.4	647.5	620.6	575.9	543.1	521.2	518.2	521.2	526.1	529.1	532.1
32.5°	674.3	667.4	625.6	561.9	512.2	484.4	482.4	487.4	495.3	497.3	499.3
35°	701.2	694.2	631.6	542.1	473.4	443.6	441.6	444.6	451.5	454.5	457.5
37.5°	739.0	735.0	640.5	520.2	437.6	404.8	398.8	396.8	400.8	399.8	403.8
40°	788.7	791.7	656.4	491.3	402.8	369.0	356.1	350.1	346.1	338.2	342.1
42.5°	861.3	863.3	674.3	458.5	373.0	335.2	318.3	307.3	299.4	286.4	288.4
45°	967.7	950.8	695.2	423.7	346.1	308.3	288.4	275.5	264.6	253.6	254.6
47.5°	1109.0	1057.3	718.1	394.9	319.3	286.4	268.5	253.6	240.7	231.7	232.7
50°	1283.0	1189.5	741.0	368.0	292.4	269.5	253.6	237.7	224.8	215.8	214.8
52.5°	1512.8	1348.7	755.9	338.2	265.6	254.6	240.7	225.8	209.9	198.9	197.9
55°	1751.5	1533.7	768.8	302.4	239.7	237.7	230.7	213.8	194.9	181.0	179.0
57.5°	2014.1	1731.6	778.8	267.5	219.8	223.8	221.8	201.9	181.0	168.1	167.1
60°	2252.8	1936.5	746.9	236.7	201.9	209.9	211.9	194.9	184.0	187.0	188.0
62.5°	2493.5	2094.6	625.6	213.8	190.0	200.9	217.8	216.8	211.9	216.8	217.8
65°	2580.0	2127.5	443.6	194.9	178.0	204.9	236.7	234.7	211.9	202.9	200.9
67.5°	2531.3	2030.0	298.4	180.0	169.1	209.9	256.6	234.7	203.9	192.0	188.0
70°	2299.5	1790.3	218.8	165.1	161.1	208.9	267.5	233.7	199.9	187.0	182.0
72.5°	1834.0	1381.5	176.0	151.2	149.2	203.9	273.5	231.7	195.9	182.0	176.0
75°	1187.6	859.3	148.2	137.3	131.3	195.9	270.5	225.8	191.0	173.1	169.1
77.5°	551.0	370.0	126.3	121.3	114.4	184.0	261.6	213.8	180.0	163.1	158.1
80°	256.6	175.0	106.4	105.4	102.4	174.1	249.6	199.9	167.1	153.2	145.2
82.5°	137.3	105.4	86.5	86.5	89.5	162.1	234.7	183.0	150.2	143.2	122.3
85°	72.6	60.7	62.7	67.6	76.6	143.2	214.8	165.1	131.3	109.4	106.4
87.5°	36.8	38.8	38.8	45.8	58.7	116.4	177.0	136.3	111.4	89.5	87.5
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)