

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: P231218

Luminaire Tested: **ARCH-M-AF48-40-D-U-T3-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231218
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-AF48-40-D-U-T3-7030-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 240mA 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: 4080 lumens
Efficiency: N/A
Efficacy: 107.4 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 - G1

Input Watts (W): 38
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

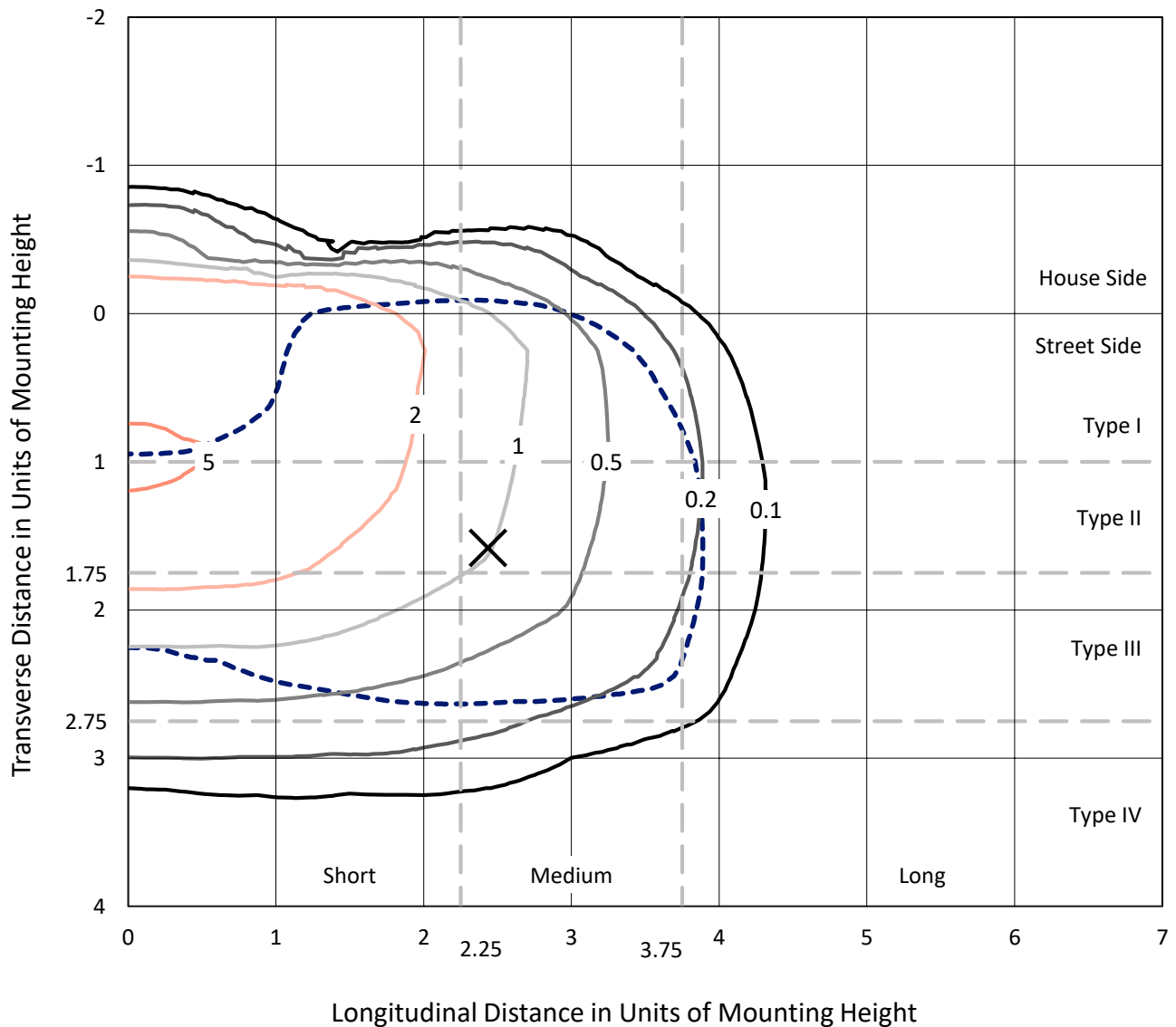


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

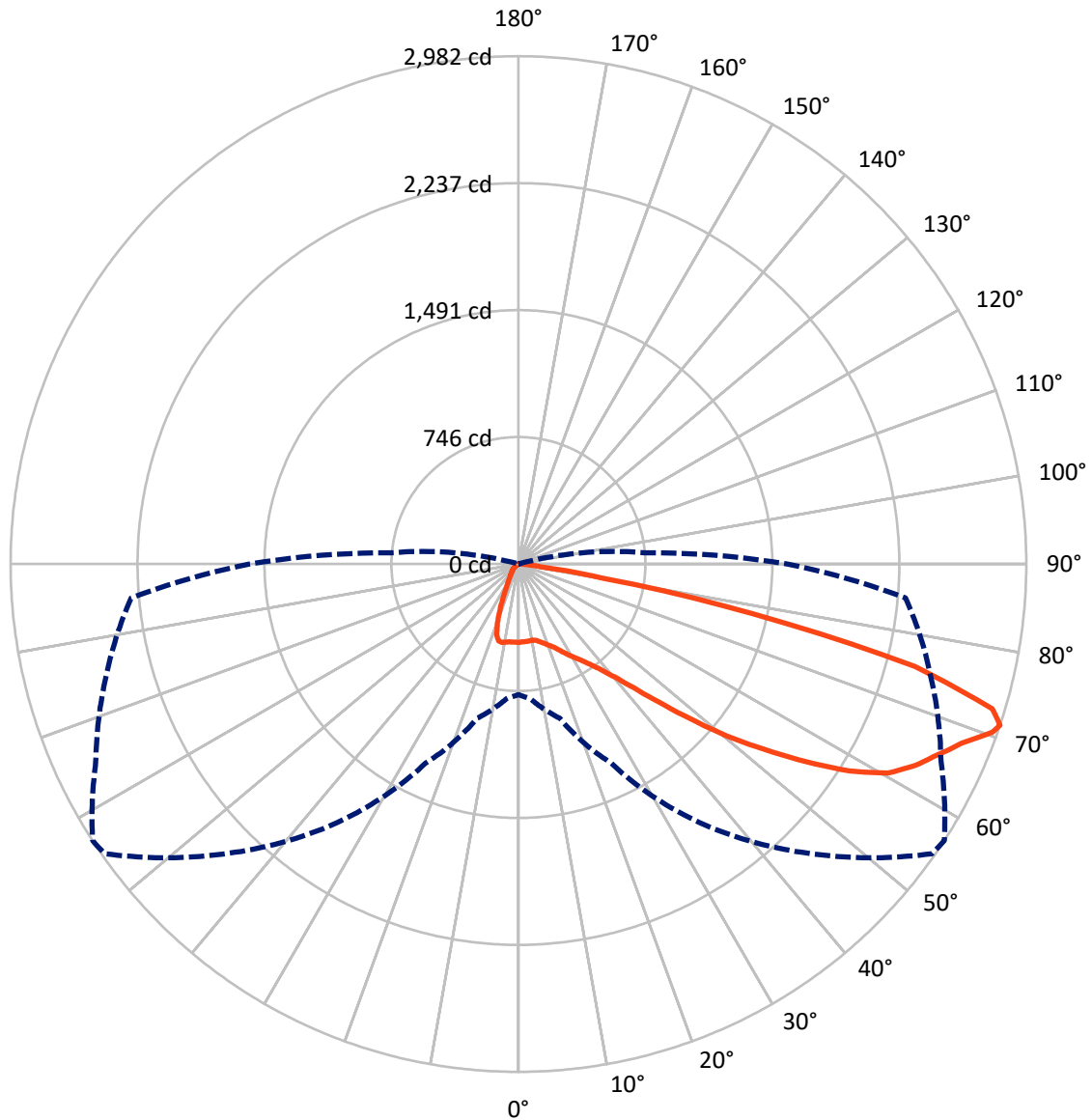


Based on 10 foot mounting height. Maximum calculated value = 5.7 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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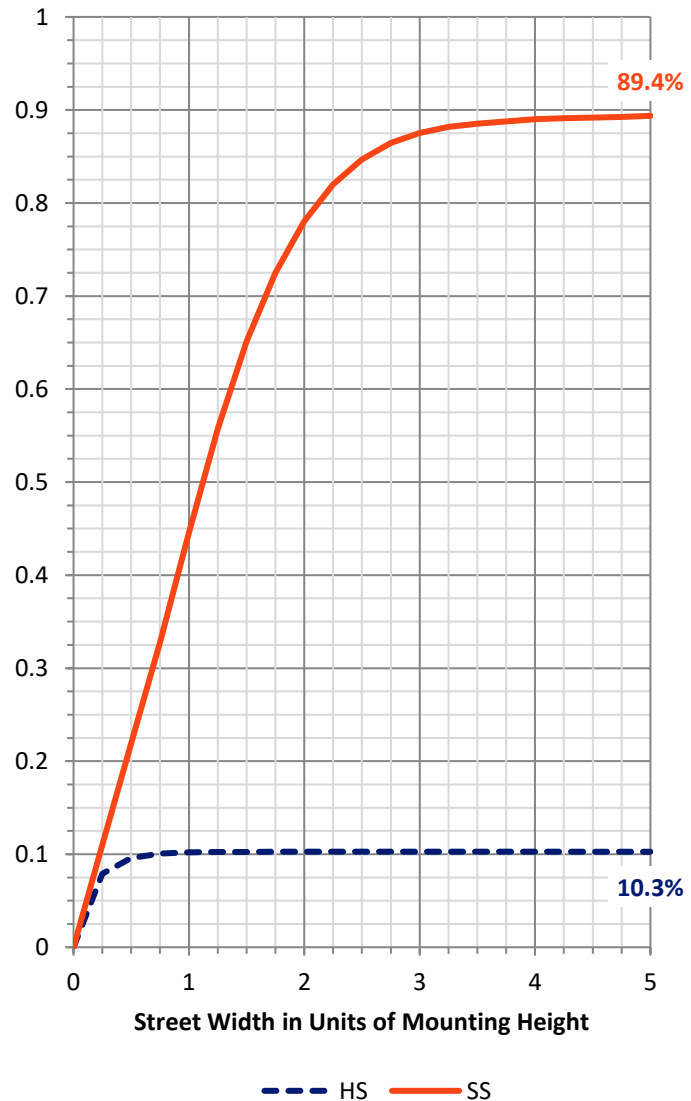
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	422.8	0.0	422.8
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	3657.2	0.0	3657.2
	% Fixture	89.6	0.0	89.6
Total	Lumens	4080.0	0.0	4080.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.3	1.1
10°-20°	115.8	2.8
20°-30°	180.6	4.4
30°-40°	305.3	7.5
40°-50°	592.9	14.5
50°-60°	995.7	24.4
60°-70°	1188.3	29.1
70°-80°	626.2	15.3
80°-90°	31.8	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°	4080.0	100.0
0°-180°	4080.0	100.0



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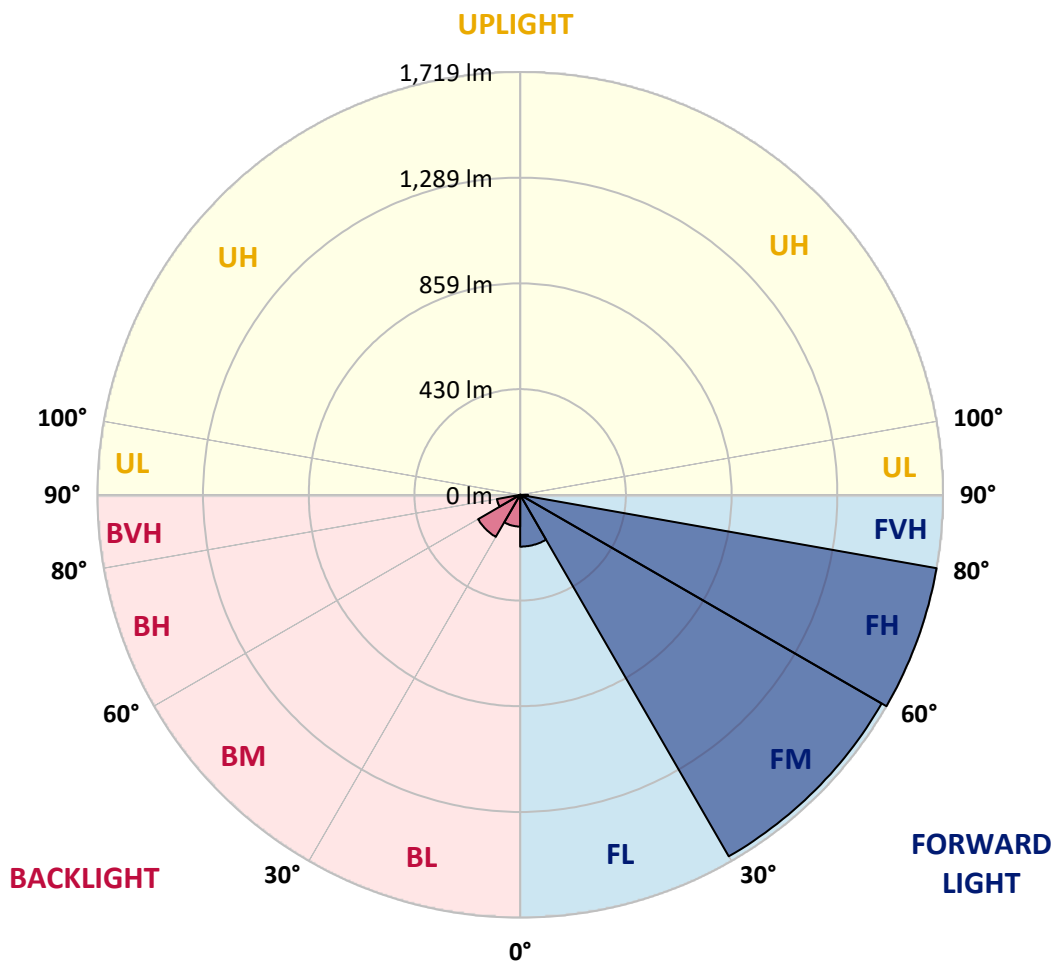
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	210.6	5.2			
FM	(30°-60°)	1696.5	41.6			
FH	(60°-80°)	1718.5	42.1			G1/1800
FVH	(80°-90°)	31.5	0.8			G1/100
BL	(0°-30°)	129.1	3.2	B1/500		
BM	(30°-60°)	197.4	4.8	B0/220		
BH	(60°-80°)	96.0	2.4	B0/110		G0/110
BVH	(80°-90°)	0.3	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-G1

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	461.1	461.1	461.1	461.1	461.1	461.1	461.1	461.1	461.1	461.1	461.1
2.5°	454.4	454.4	454.4	455.4	456.3	456.3	458.2	457.3	457.3	457.3	459.2
5°	442.1	443.0	444.0	445.9	449.7	452.5	457.3	457.3	458.2	460.2	461.1
7.5°	425.0	425.9	428.8	432.6	440.2	446.8	454.4	456.3	459.2	464.0	465.9
10°	414.5	416.4	420.2	425.0	433.5	442.1	451.6	454.4	463.0	471.6	476.3
12.5°	411.7	412.6	416.4	424.0	434.5	444.9	457.3	460.2	472.5	485.8	493.4
15°	416.4	417.4	419.3	427.8	440.2	453.5	469.7	473.5	488.7	503.9	513.4
17.5°	425.0	425.0	426.9	434.5	447.8	463.0	483.9	489.6	506.7	523.8	534.3
20°	430.7	430.7	433.5	441.1	456.3	476.3	501.0	508.6	527.7	546.7	556.2
22.5°	436.4	437.3	440.2	448.7	465.9	493.4	521.9	529.6	551.4	571.4	580.9
25°	452.5	451.6	452.5	460.2	480.1	514.3	550.5	560.0	582.8	604.7	609.4
27.5°	497.2	495.3	483.0	478.2	493.4	536.2	586.6	596.1	622.7	644.6	644.6
30°	599.9	596.1	565.7	526.7	514.3	556.2	620.8	634.1	668.4	687.4	681.7
32.5°	730.2	721.6	682.6	616.1	566.6	582.8	657.0	672.2	715.9	732.1	719.7
35°	872.8	871.8	823.3	737.8	667.4	637.9	703.5	721.6	776.7	791.0	771.0
37.5°	1023.9	1027.7	995.4	877.5	794.8	728.3	765.3	786.2	853.8	870.9	851.9
40°	1192.2	1191.3	1178.9	1039.1	947.9	856.6	854.7	873.7	955.5	982.1	955.5
42.5°	1405.2	1403.3	1358.6	1233.1	1133.3	1023.9	985.0	991.6	1082.9	1126.6	1087.6
45°	1621.9	1608.6	1557.3	1448.9	1360.5	1231.2	1157.0	1157.0	1235.0	1294.9	1234.0
47.5°	1742.7	1729.4	1708.5	1648.6	1621.9	1477.4	1368.1	1354.8	1415.6	1476.5	1390.9
50°	1901.5	1901.5	1849.2	1826.3	1872.0	1770.3	1601.0	1587.7	1617.2	1665.7	1553.5
52.5°	2026.9	2004.1	1967.1	1987.0	2117.3	2070.7	1833.9	1808.3	1831.1	1843.5	1695.1
55°	2079.2	2057.4	2054.5	2127.7	2329.3	2264.6	2072.6	2049.8	2047.9	1987.0	1818.7
57.5°	2089.7	2070.7	2106.8	2235.2	2535.6	2423.4	2310.3	2293.1	2239.9	2087.8	1945.2
60°	2001.3	2010.8	2098.3	2294.1	2657.3	2561.3	2510.9	2492.8	2370.2	2173.4	2085.9
62.5°	1819.7	1842.5	2006.0	2299.8	2612.6	2617.3	2622.1	2609.7	2470.9	2251.3	2227.5
65°	1604.8	1611.5	1808.3	2220.9	2534.6	2600.2	2703.9	2702.9	2547.9	2338.8	2387.3
67.5°	1322.5	1333.9	1504.0	1954.7	2378.7	2592.6	2811.3	2808.4	2635.4	2438.6	2482.3
70°	984.0	998.3	1136.1	1520.2	2030.7	2497.6	2952.0	2953.9	2727.6	2514.7	2416.7
71°	767.2	792.9	937.4	1291.1	1853.0	2401.5	2965.3	2982.4	2738.1	2504.2	2281.7
72.5°	376.5	406.9	588.5	908.9	1525.0	2186.7	2877.8	2911.1	2672.5	2374.0	1950.9
75°	97.9	103.6	175.9	371.7	817.6	1448.9	2320.7	2405.3	2184.8	1807.3	1192.2
77.5°	61.8	63.7	82.7	144.5	306.1	550.5	1363.3	1405.2	1248.3	915.5	420.2
80°	43.7	44.7	52.3	93.2	178.7	160.7	490.6	508.6	451.6	242.4	75.1
82.5°	26.6	26.6	38.0	59.9	110.3	87.5	129.3	137.9	121.7	67.5	24.7
85°	15.2	16.2	23.8	40.9	52.3	42.8	48.5	51.3	52.3	44.7	10.5
87.5°	12.4	13.3	20.9	34.2	28.5	20.9	20.9	21.9	22.8	26.6	4.8
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°	461.1	461.1	461.1	461.1	461.1	461.1	461.1	461.1	461.1	461.1	461.1
2.5°	459.2	459.2	460.2	459.2	459.2	459.2	460.2	460.2	460.2	462.1	463.0
5°	461.1	461.1	461.1	460.2	459.2	459.2	461.1	462.1	462.1	464.9	464.9
7.5°	465.9	465.9	464.0	462.1	460.2	457.3	458.2	459.2	458.2	459.2	459.2
10°	476.3	476.3	473.5	469.7	464.0	455.4	444.0	429.7	416.4	411.7	409.8
12.5°	493.4	492.5	486.8	480.1	467.8	438.3	395.5	345.1	303.3	291.9	288.1
15°	512.4	510.5	503.9	492.5	459.2	381.2	291.9	227.2	187.3	177.8	175.9
17.5°	532.4	529.6	520.0	497.2	420.2	283.3	188.2	142.6	120.7	118.8	119.8
20°	553.3	549.5	536.2	487.7	339.4	189.2	121.7	110.3	108.4	108.4	109.3
22.5°	577.1	572.3	554.3	453.5	247.2	125.5	104.6	103.6	102.7	101.7	101.7
25°	604.7	599.0	571.4	391.7	170.2	102.7	99.8	97.0	95.1	93.2	92.2
27.5°	637.9	630.3	584.7	315.6	116.9	96.0	94.1	89.4	85.6	81.8	81.8
30°	671.2	661.7	580.9	237.7	95.1	89.4	85.6	79.9	74.2	70.4	69.4
32.5°	706.4	696.9	556.2	159.7	86.5	81.8	77.0	68.5	61.8	57.0	56.1
35°	758.7	751.1	507.7	105.5	78.0	72.3	65.6	57.0	48.5	43.7	42.8
37.5°	836.6	827.1	447.8	80.8	68.5	59.9	54.2	44.7	36.1	31.4	30.4
40°	941.2	912.7	376.5	71.3	59.9	49.4	41.8	32.3	25.7	22.8	22.8
42.5°	1062.9	995.4	299.5	64.6	53.2	40.9	30.4	21.9	18.1	17.1	17.1
45°	1192.2	1072.4	222.5	59.9	46.6	32.3	21.9	15.2	13.3	12.4	12.4
47.5°	1325.3	1135.2	155.0	54.2	39.0	24.7	15.2	11.4	9.5	8.6	8.6
50°	1449.9	1176.0	109.3	48.5	33.3	18.1	11.4	8.6	6.7	6.7	6.7
52.5°	1536.4	1172.2	78.9	41.8	25.7	12.4	7.6	5.7	5.7	5.7	5.7
55°	1612.4	1158.0	61.8	36.1	20.0	8.6	5.7	4.8	4.8	3.8	3.8
57.5°	1677.1	1135.2	52.3	29.5	14.3	6.7	3.8	3.8	2.9	2.9	2.9
60°	1732.2	1106.6	43.7	24.7	9.5	4.8	2.9	1.9	1.9	1.0	1.9
62.5°	1807.3	1088.6	38.0	19.0	6.7	2.9	1.9	1.0	1.0	0.0	0.0
65°	1862.5	1054.4	32.3	13.3	3.8	1.9	1.0	1.0	0.0	0.0	0.0
67.5°	1864.4	992.6	23.8	7.6	2.9	1.9	1.0	0.0	0.0	0.0	0.0
70°	1714.2	846.1	15.2	3.8	1.9	1.0	1.0	0.0	0.0	0.0	0.0
71°	1576.3	749.2	12.4	2.9	1.9	1.0	0.0	0.0	0.0	0.0	0.0
72.5°	1298.7	550.5	9.5	2.9	1.0	1.0	0.0	0.0	0.0	0.0	0.0
75°	715.9	199.7	4.8	1.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	229.1	60.8	2.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	39.0	9.5	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	13.3	3.8	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	3.8	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.9	1.0	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)