

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: P234819

Luminaire Tested: **ARCH-M-AF48-50-D-U-T3-8027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P234819  
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-AF48-50-D-U-T3-8027-HSS  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 80 CRI, 2700K, 305mA 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: 3938 lumens  
Efficiency: N/A  
Efficacy: 82.0 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): 48  
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

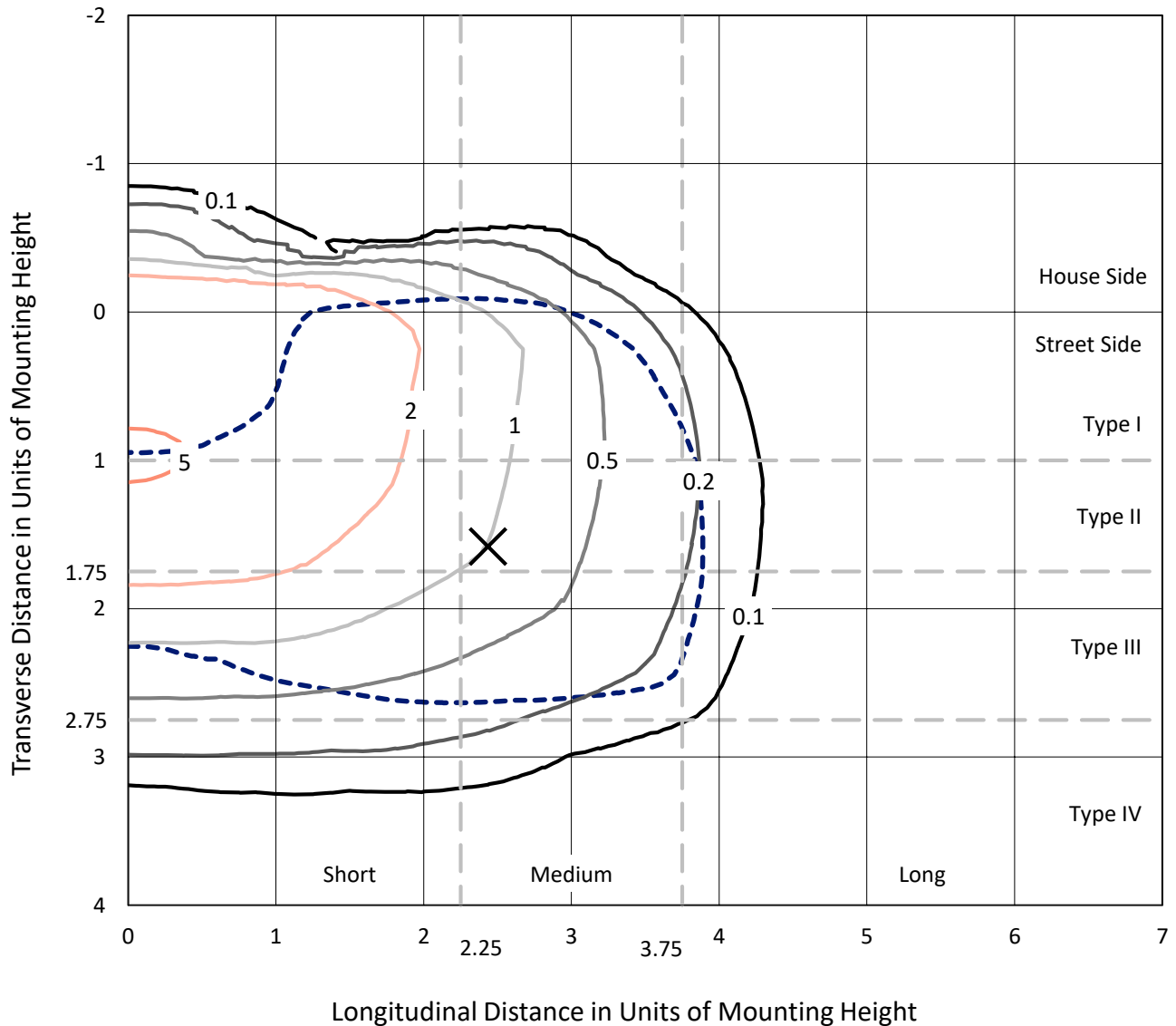


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

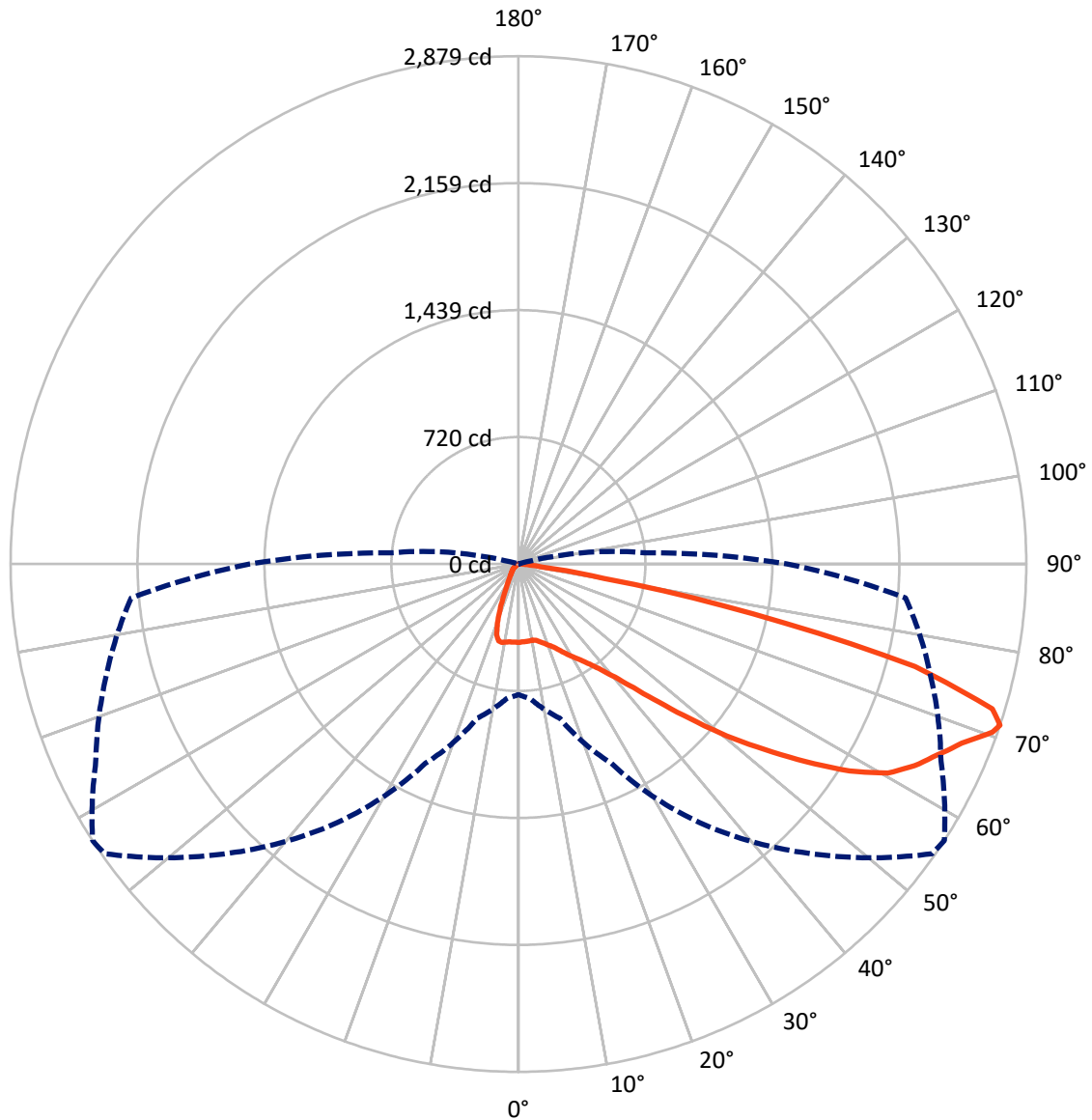


Based on 10 foot mounting height. Maximum calculated value = 5.5 fc  
 Type III - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



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



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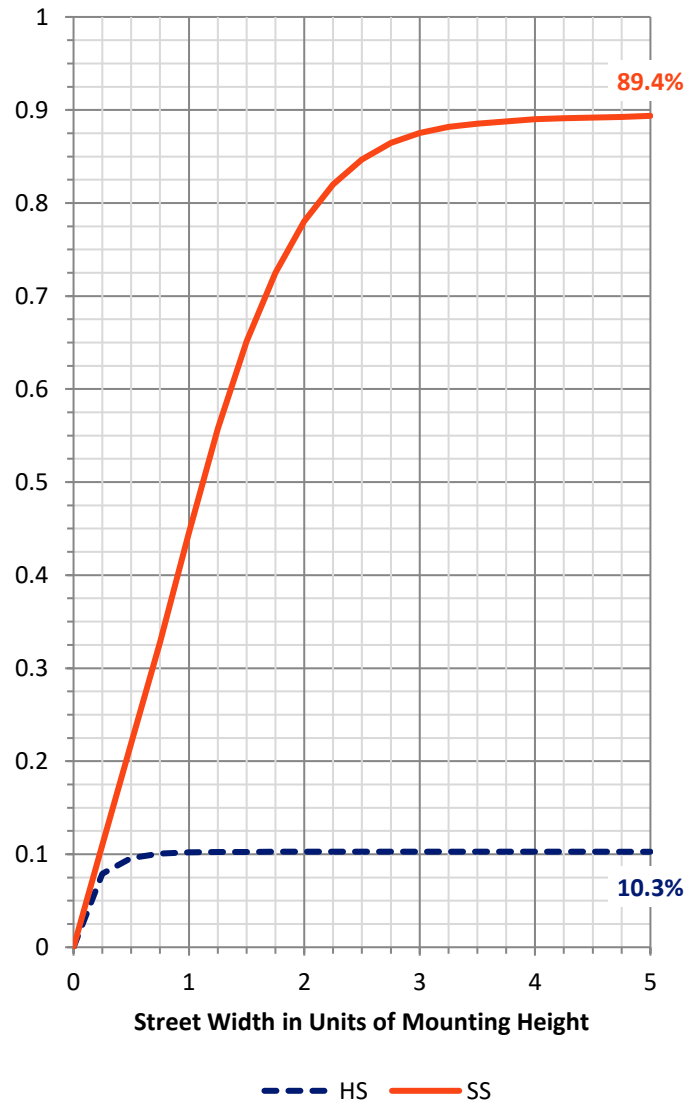
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	408.1	0.0	408.1
	% Fixture	10.4	0.0	10.4
<b>Street Side</b>	Lumens	3529.9	0.0	3529.9
	% Fixture	89.6	0.0	89.6
<b>Total</b>	Lumens	3938.0	0.0	3938.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	41.8	1.1
10°-20°	111.8	2.8
20°-30°	174.3	4.4
30°-40°	294.7	7.5
40°-50°	572.3	14.5
50°-60°	961.1	24.4
60°-70°	1146.9	29.1
70°-80°	604.5	15.3
80°-90°	30.7	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°	3938.0	100.0
0°-180°	3938.0	100.0

**Coefficient of Utilization**



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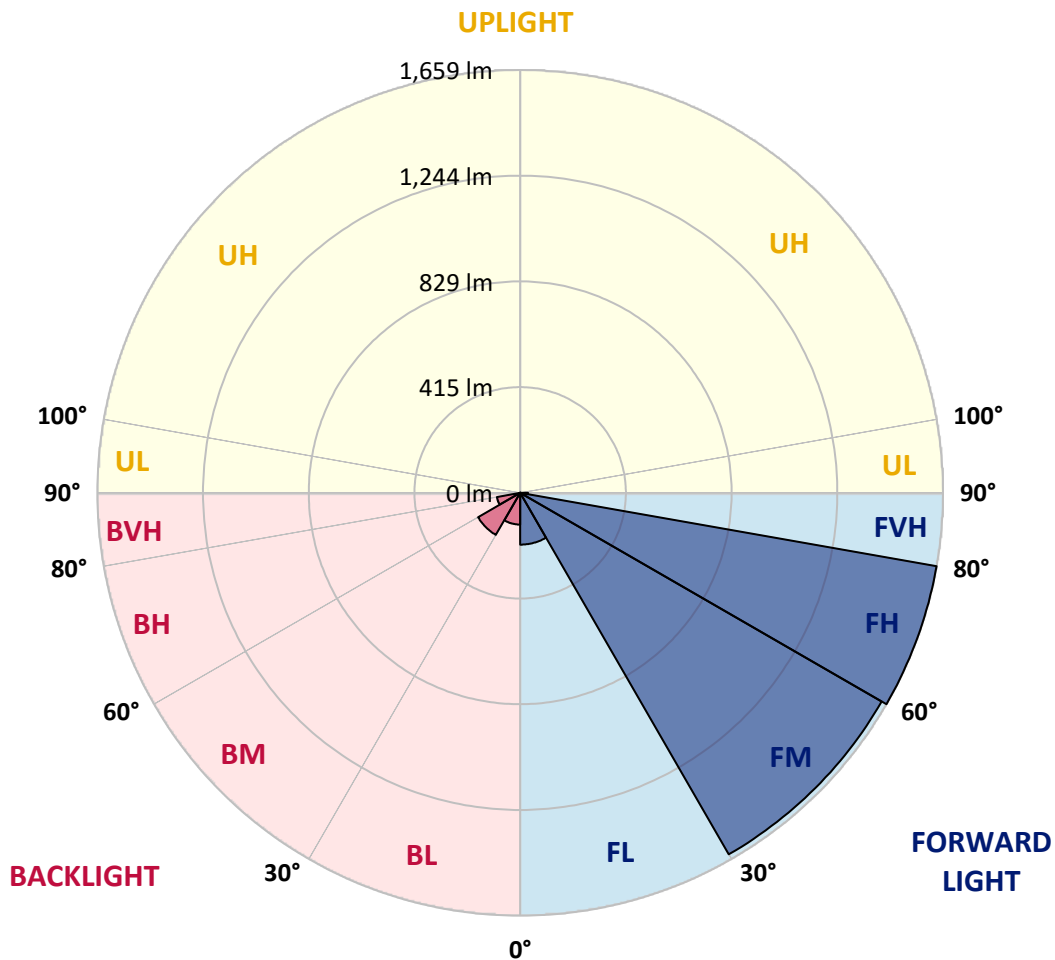
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	203.3	5.2			
FM	(30°-60°)	1637.5	41.6			
FH	(60°-80°)	1658.7	42.1			G1/1800
FVH	(80°-90°)	30.4	0.8			G1/100
BL	(0°-30°)	124.6	3.2	B1/500		
BM	(30°-60°)	190.6	4.8	B0/220		
BH	(60°-80°)	92.7	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°	445.1	445.1	445.1	445.1	445.1	445.1	445.1	445.1	445.1	445.1	445.1
2.5°	438.6	438.6	438.6	439.5	440.5	440.5	442.3	441.4	441.4	441.4	443.2
5°	426.7	427.6	428.5	430.4	434.0	436.8	441.4	441.4	442.3	444.1	445.1
7.5°	410.2	411.1	413.9	417.5	424.9	431.3	438.6	440.5	443.2	447.8	449.6
10°	400.1	401.9	405.6	410.2	418.4	426.7	435.9	438.6	446.9	455.1	459.7
12.5°	397.3	398.3	401.9	409.3	419.4	429.5	441.4	444.1	456.1	468.9	476.3
15°	401.9	402.8	404.7	412.9	424.9	437.7	453.3	457.0	471.7	486.3	495.5
17.5°	410.2	410.2	412.0	419.4	432.2	446.9	467.1	472.6	489.1	505.6	515.7
20°	415.7	415.7	418.4	425.8	440.5	459.7	483.6	490.9	509.3	527.6	536.8
22.5°	421.2	422.1	424.9	433.1	449.6	476.3	503.8	511.1	532.2	551.5	560.7
25°	436.8	435.9	436.8	444.1	463.4	496.4	531.3	540.5	562.5	583.6	588.2
27.5°	479.9	478.1	466.2	461.6	476.3	517.5	566.2	575.4	601.1	622.2	622.2
30°	579.0	575.4	546.0	508.4	496.4	536.8	599.2	612.1	645.1	663.5	657.9
32.5°	704.7	696.5	658.9	594.6	546.9	562.5	634.1	648.8	691.0	706.6	694.7
35°	842.4	841.5	794.7	712.1	644.2	615.7	679.1	696.5	749.7	763.5	744.2
37.5°	988.3	992.0	960.8	847.0	767.1	702.9	738.7	758.9	824.0	840.6	822.2
40°	1150.7	1149.8	1137.9	1003.0	914.9	826.8	825.0	843.3	922.2	947.9	922.2
42.5°	1356.3	1354.4	1311.3	1190.2	1093.8	988.3	950.7	957.1	1045.2	1087.4	1049.8
45°	1565.5	1552.6	1503.1	1398.5	1313.1	1188.3	1116.8	1116.8	1192.0	1249.8	1191.1
47.5°	1682.0	1669.2	1649.0	1591.2	1565.5	1426.0	1320.5	1307.6	1366.4	1425.1	1342.5
50°	1835.3	1835.3	1784.8	1762.8	1806.8	1708.6	1545.3	1532.5	1560.9	1607.7	1499.4
52.5°	1956.4	1934.4	1898.6	1917.9	2043.6	1998.6	1770.1	1745.3	1767.4	1779.3	1636.1
55°	2006.9	1985.8	1983.0	2053.7	2248.2	2185.8	2000.4	1978.4	1976.6	1917.9	1755.4
57.5°	2017.0	1998.6	2033.5	2157.4	2447.3	2339.1	2229.9	2213.3	2162.0	2015.1	1877.5
60°	1931.6	1940.8	2025.2	2214.3	2564.8	2472.1	2423.5	2406.0	2287.7	2097.7	2013.3
62.5°	1756.4	1778.4	1936.2	2219.8	2521.7	2526.3	2530.8	2518.9	2384.9	2173.0	2150.0
65°	1549.0	1555.4	1745.3	2143.6	2446.4	2509.7	2609.8	2608.8	2459.3	2257.4	2304.2
67.5°	1276.4	1287.4	1451.7	1886.7	2295.9	2502.4	2713.5	2710.7	2543.7	2353.7	2395.9
70°	949.8	963.5	1096.6	1467.3	1960.1	2410.6	2849.3	2851.1	2632.7	2427.1	2332.6
71°	740.5	765.3	904.8	1246.2	1788.5	2317.9	2862.1	2878.6	2642.8	2417.1	2202.3
72.5°	363.4	392.7	568.0	877.3	1471.9	2110.6	2777.7	2809.8	2579.5	2291.3	1883.0
75°	94.5	100.0	169.8	358.8	789.2	1398.5	2240.0	2321.6	2108.7	1744.4	1150.7
77.5°	59.6	61.5	79.8	139.5	295.5	531.3	1315.9	1356.3	1204.9	883.7	405.6
80°	42.2	43.1	50.5	89.9	172.5	155.1	473.5	490.9	435.9	234.0	72.5
82.5°	25.7	25.7	36.7	57.8	106.4	84.4	124.8	133.1	117.5	65.2	23.9
85°	14.7	15.6	22.9	39.5	50.5	41.3	46.8	49.6	50.5	43.1	10.1
87.5°	11.9	12.8	20.2	33.0	27.5	20.2	20.2	21.1	22.0	25.7	4.6
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°	445.1	445.1	445.1	445.1	445.1	445.1	445.1	445.1	445.1	445.1	445.1
2.5°	443.2	443.2	444.1	443.2	443.2	443.2	444.1	444.1	444.1	446.0	446.9
5°	445.1	445.1	445.1	444.1	443.2	443.2	445.1	446.0	446.0	448.7	448.7
7.5°	449.6	449.6	447.8	446.0	444.1	441.4	442.3	443.2	442.3	443.2	443.2
10°	459.7	459.7	457.0	453.3	447.8	439.5	428.5	414.8	401.9	397.3	395.5
12.5°	476.3	475.3	469.8	463.4	451.5	423.0	381.7	333.1	292.7	281.7	278.0
15°	494.6	492.8	486.3	475.3	443.2	368.0	281.7	219.3	180.8	171.6	169.8
17.5°	513.9	511.1	501.9	479.9	405.6	273.5	181.7	137.6	116.5	114.7	115.6
20°	534.1	530.4	517.5	470.7	327.6	182.6	117.5	106.4	104.6	104.6	105.5
22.5°	557.0	552.4	535.0	437.7	238.6	121.1	100.9	100.0	99.1	98.2	98.2
25°	583.6	578.1	551.5	378.1	164.3	99.1	96.4	93.6	91.8	89.9	89.0
27.5°	615.7	608.4	564.3	304.7	112.9	92.7	90.8	86.3	82.6	78.9	78.9
30°	647.9	638.7	560.7	229.4	91.8	86.3	82.6	77.1	71.6	67.9	67.0
32.5°	681.8	672.6	536.8	154.2	83.5	78.9	74.3	66.1	59.6	55.1	54.1
35°	732.3	724.9	490.0	101.9	75.2	69.7	63.3	55.1	46.8	42.2	41.3
37.5°	807.5	798.3	432.2	78.0	66.1	57.8	52.3	43.1	34.9	30.3	29.4
40°	908.5	880.9	363.4	68.8	57.8	47.7	40.4	31.2	24.8	22.0	22.0
42.5°	1025.9	960.8	289.1	62.4	51.4	39.5	29.4	21.1	17.4	16.5	16.5
45°	1150.7	1035.1	214.7	57.8	45.0	31.2	21.1	14.7	12.8	11.9	11.9
47.5°	1279.2	1095.7	149.6	52.3	37.6	23.9	14.7	11.0	9.2	8.3	8.3
50°	1399.4	1135.1	105.5	46.8	32.1	17.4	11.0	8.3	6.4	6.4	6.4
52.5°	1482.9	1131.4	76.2	40.4	24.8	11.9	7.3	5.5	5.5	5.5	5.5
55°	1556.3	1117.7	59.6	34.9	19.3	8.3	5.5	4.6	4.6	3.7	3.7
57.5°	1618.7	1095.7	50.5	28.4	13.8	6.4	3.7	3.7	2.8	2.8	2.8
60°	1671.9	1068.1	42.2	23.9	9.2	4.6	2.8	1.8	1.8	0.9	1.8
62.5°	1744.4	1050.7	36.7	18.4	6.4	2.8	1.8	0.9	0.9	0.0	0.0
65°	1797.6	1017.7	31.2	12.8	3.7	1.8	0.9	0.9	0.0	0.0	0.0
67.5°	1799.5	958.0	22.9	7.3	2.8	1.8	0.9	0.0	0.0	0.0	0.0
70°	1654.5	816.7	14.7	3.7	1.8	0.9	0.9	0.0	0.0	0.0	0.0
71°	1521.4	723.1	11.9	2.8	1.8	0.9	0.0	0.0	0.0	0.0	0.0
72.5°	1253.5	531.3	9.2	2.8	0.9	0.9	0.0	0.0	0.0	0.0	0.0
75°	691.0	192.7	4.6	1.8	0.9	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	221.2	58.7	2.8	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	37.6	9.2	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	12.8	3.7	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	3.7	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.8	0.9	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)