

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: P234792

Luminaire Tested: **ARCH-M-AF48-40-D-U-T2R-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234792
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29623)
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-T2R-8027-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 240mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3438 lumens
Efficiency: N/A
Efficacy: 90.5 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B0 - U0 - G1

Input Watts (W): 38
Input Voltage (V): NR
Input Current (A_{in}): 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

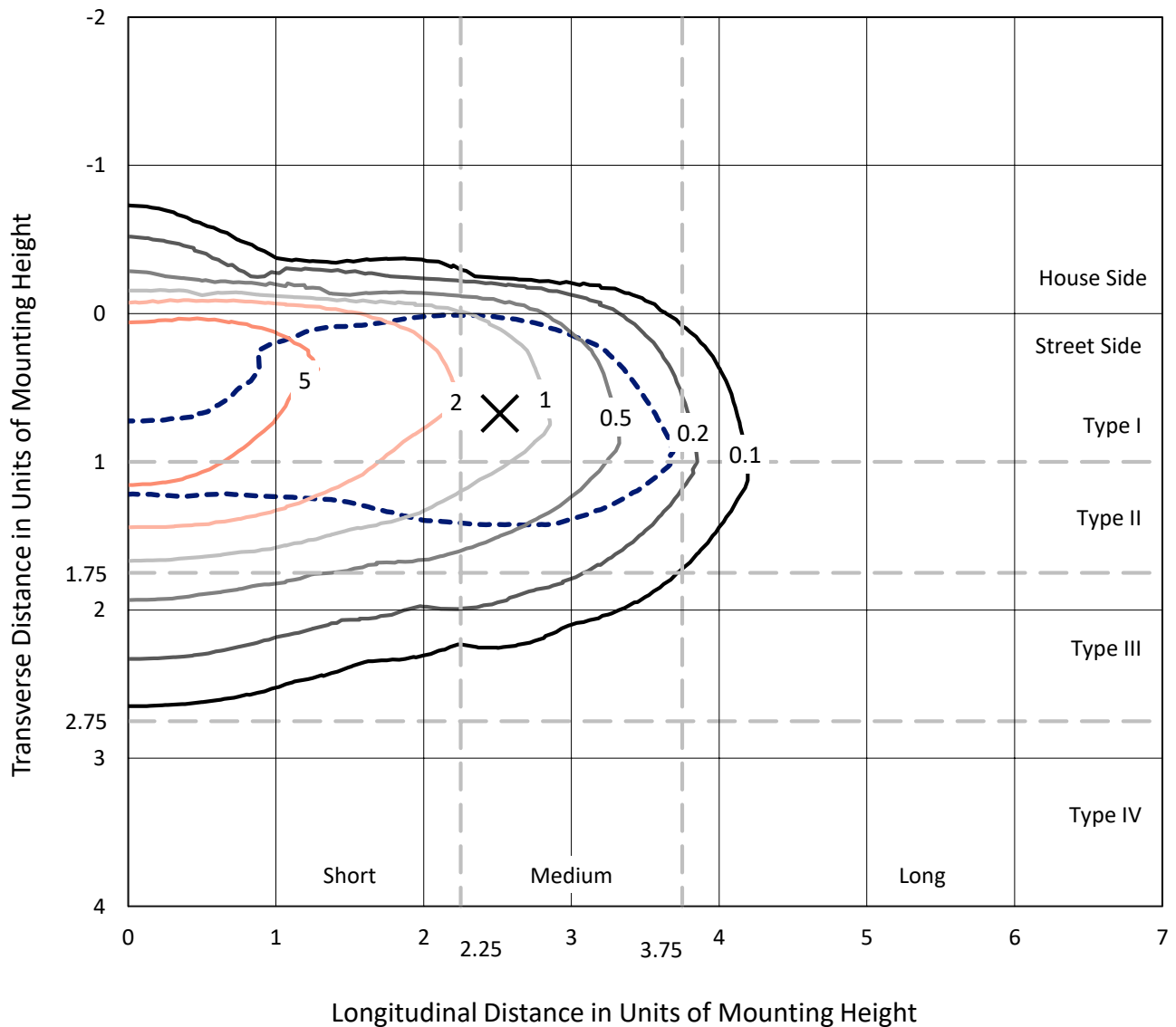


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

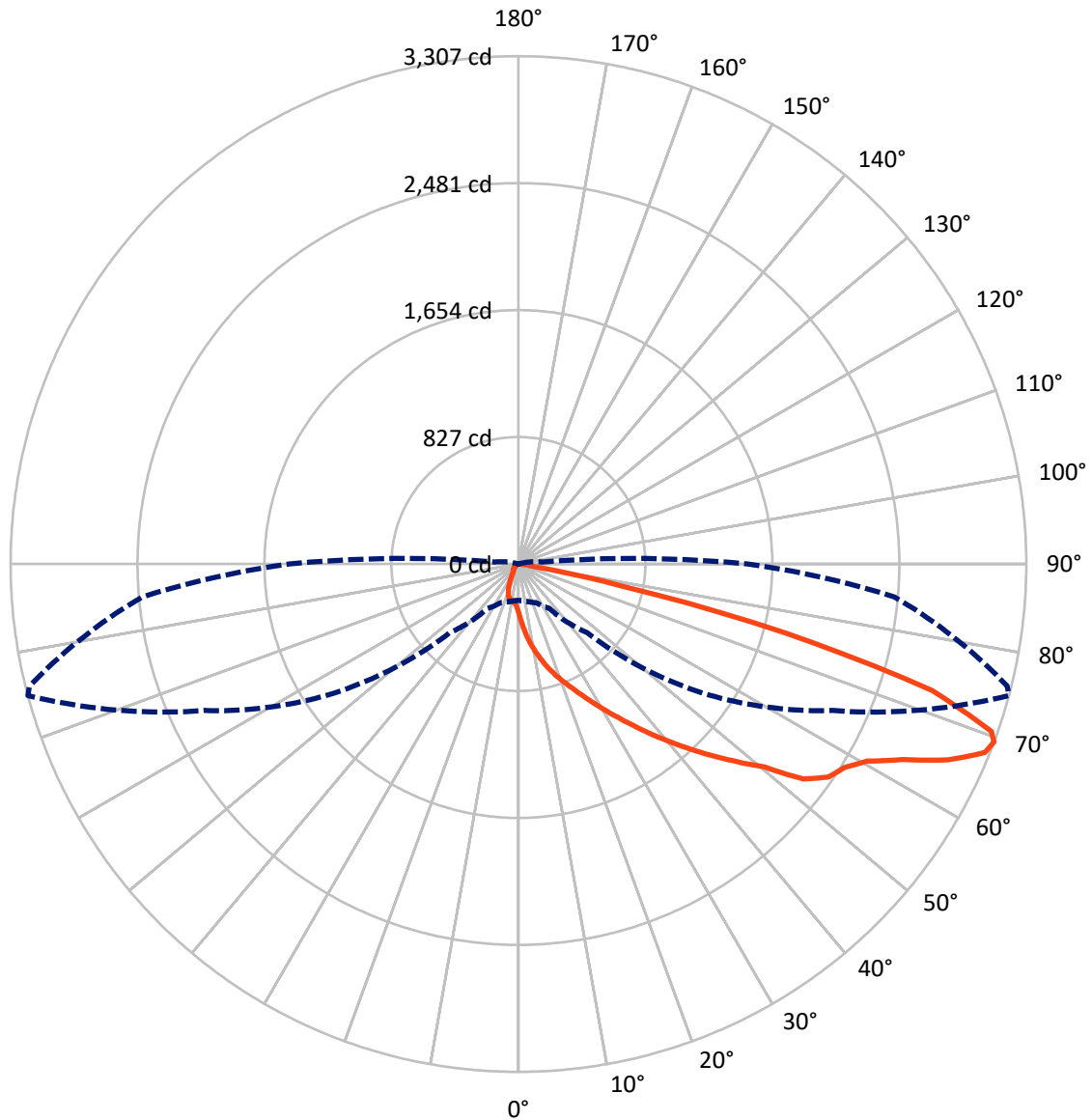


Based on 10 foot mounting height. Maximum calculated value = 8.8 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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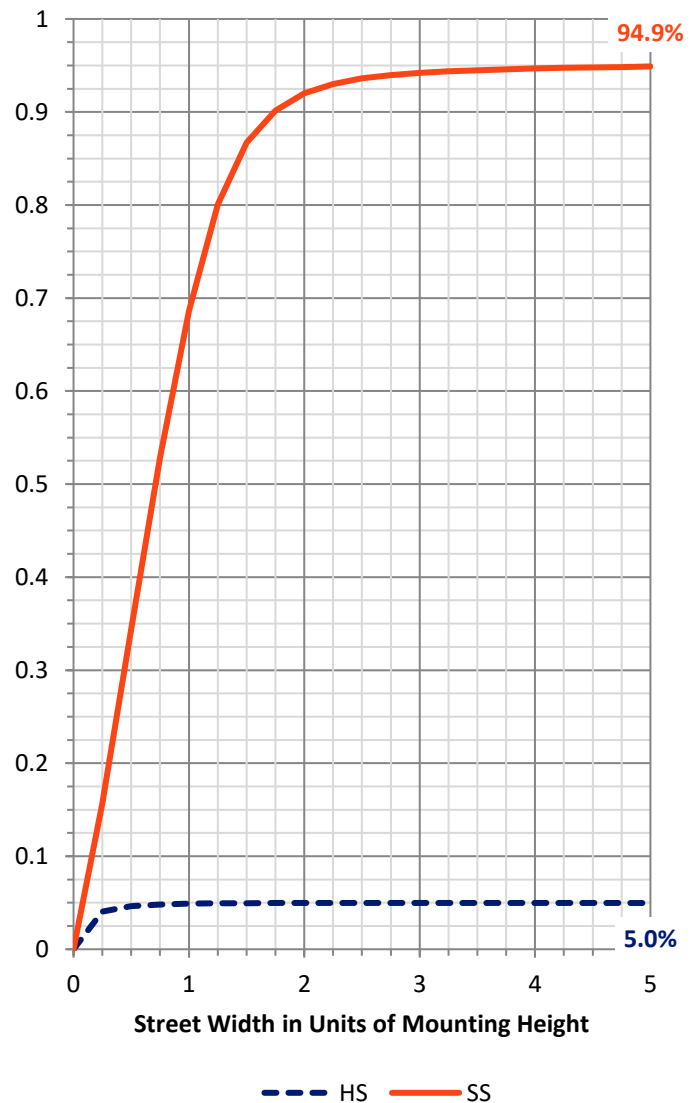
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	171.5	0.0	171.5
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	3266.5	0.0	3266.5
	% Fixture	95.0	0.0	95.0
Total	Lumens	3438.0	0.0	3438.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.3	1.1
10°-20°	133.4	3.9
20°-30°	254.6	7.4
30°-40°	456.7	13.3
40°-50°	699.7	20.4
50°-60°	813.2	23.7
60°-70°	720.1	20.9
70°-80°	310.6	9.0
80°-90°	12.4	0.4
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°	3438.0	100.0
0°-180°	3438.0	100.0

Coefficient of Utilization



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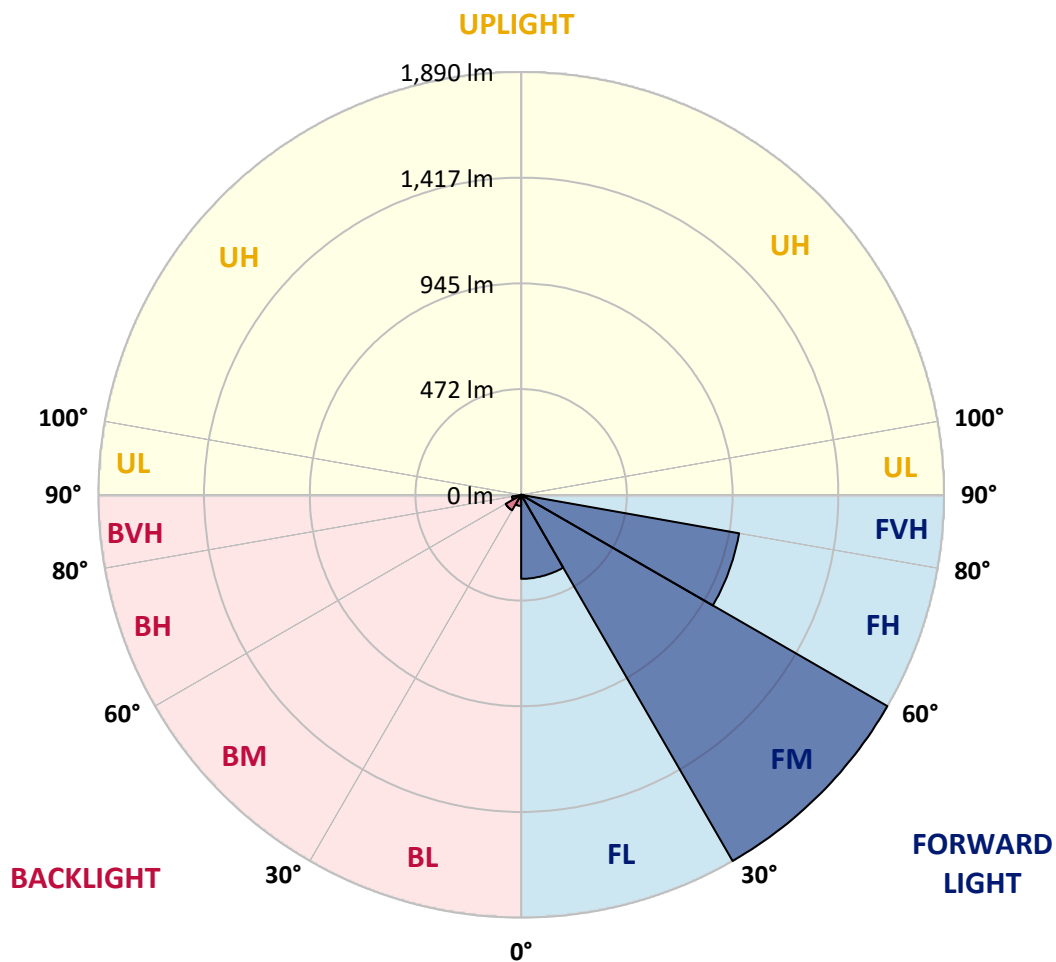
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	375.4	10.9			
FM	(30°-60°)	1889.6	55.0			
FH	(60°-80°)	989.2	28.8			G1/1800
FVH	(80°-90°)	12.3	0.4			G1/100
BL	(0°-30°)	49.8	1.4	B0/110		
BM	(30°-60°)	80.0	2.3	B0/220		
BH	(60°-80°)	41.6	1.2	B0/110		G0/110
BVH	(80°-90°)	0.2	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G1

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	319.9	319.9	319.9	319.9	319.9	319.9	319.9	319.9	319.9	319.9	319.9
2.5°	527.0	521.8	516.6	510.7	497.3	474.3	445.3	414.2	375.6	368.9	337.7
5°	639.8	637.6	632.4	624.2	609.4	584.1	551.5	505.5	440.9	429.8	363.7
7.5°	719.2	717.7	713.3	703.6	690.3	665.0	630.9	581.2	506.2	493.6	396.4
10°	790.5	789.7	786.0	777.1	763.8	736.3	699.9	648.0	568.6	554.5	434.2
12.5°	855.1	855.8	854.3	849.9	840.2	814.2	772.7	716.3	628.7	613.1	479.5
15°	892.9	895.1	901.1	910.0	913.0	892.2	849.1	786.8	690.3	676.9	531.4
17.5°	880.3	882.5	901.1	931.5	960.5	963.4	924.8	853.6	751.1	737.8	582.7
20°	849.9	852.8	872.1	913.7	970.1	1009.4	993.9	926.3	809.0	792.7	631.6
22.5°	884.0	884.0	889.9	915.2	966.4	1028.0	1048.8	999.1	868.4	848.4	680.6
25°	1001.3	999.1	986.4	976.0	992.4	1047.3	1090.3	1073.3	938.2	915.2	732.6
27.5°	1149.7	1160.1	1136.4	1098.5	1061.4	1085.2	1127.5	1146.8	1015.4	991.6	786.0
30°	1316.0	1320.4	1292.2	1241.8	1176.4	1153.4	1171.3	1209.8	1099.3	1073.3	841.7
32.5°	1465.9	1462.2	1438.5	1385.8	1304.9	1255.1	1227.7	1260.3	1190.5	1160.9	898.9
35°	1598.8	1601.7	1572.8	1511.9	1432.5	1379.8	1314.5	1317.5	1293.0	1258.8	964.9
37.5°	1718.3	1713.1	1685.6	1624.8	1552.8	1495.6	1426.6	1376.9	1405.1	1369.4	1039.1
40°	1815.5	1810.3	1781.4	1722.0	1654.4	1607.7	1553.5	1456.3	1523.1	1482.2	1118.6
42.5°	1892.7	1886.8	1862.3	1805.1	1739.8	1698.2	1672.3	1554.2	1649.3	1608.4	1207.6
45°	1930.6	1925.4	1910.5	1867.5	1810.3	1773.9	1786.6	1667.1	1784.3	1750.2	1305.6
47.5°	1886.0	1883.8	1900.9	1893.4	1860.8	1841.5	1885.3	1790.3	1926.1	1892.7	1418.4
50°	1750.9	1754.7	1804.4	1866.0	1881.6	1904.6	1966.2	1920.2	2078.3	2042.6	1548.3
52.5°	1417.7	1442.9	1592.8	1741.3	1856.3	1943.2	2061.2	2105.7	2326.2	2291.3	1750.9
55°	1058.4	1068.8	1232.1	1486.0	1754.7	1940.2	2131.7	2214.8	2448.6	2413.0	1804.4
57.5°	839.5	843.2	924.1	1183.1	1545.3	1873.4	2168.8	2254.2	2502.1	2472.4	1883.8
60°	659.1	663.6	722.2	900.3	1250.7	1693.0	2115.4	2288.3	2606.7	2583.0	2022.6
62.5°	512.9	517.3	553.0	657.6	938.2	1415.4	2007.8	2343.2	2805.7	2794.5	2249.7
65°	397.1	398.6	423.1	472.1	662.8	1114.8	1876.4	2394.5	3074.4	3064.7	2433.8
67.5°	293.2	295.4	312.5	342.9	447.6	800.9	1661.1	2355.1	3277.0	3248.8	2500.6
69°	236.8	239.0	253.8	278.3	353.3	630.9	1464.4	2257.9	3307.4	3280.7	2458.3
70°	202.6	204.1	219.0	239.7	301.3	535.9	1308.6	2174.0	3267.3	3241.4	2361.8
72.5°	129.9	137.3	152.2	165.5	199.7	354.8	883.3	1802.9	2819.0	2774.5	1849.7
75°	72.0	74.2	100.9	117.3	132.9	230.8	491.4	1124.5	1793.2	1762.1	989.4
77.5°	59.4	60.9	71.3	89.1	89.1	129.1	185.6	443.1	682.1	615.3	267.9
80°	41.6	43.0	54.2	58.6	63.8	72.7	60.1	97.2	105.4	93.5	40.1
82.5°	28.9	30.4	37.1	48.2	51.2	34.1	22.3	28.9	30.4	30.4	15.6
85°	5.2	7.4	27.5	40.1	30.4	10.4	12.6	10.4	9.6	10.4	3.7
87.5°	0.0	0.0	17.1	19.3	16.3	4.5	5.2	3.7	2.2	3.0	1.5
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°	319.9	319.9	319.9	319.9	319.9	319.9	319.9	319.9	319.9	319.9	319.9
2.5°	322.1	306.5	279.8	260.5	244.2	231.6	226.4	218.2	212.3	215.2	211.5
5°	331.0	303.6	260.5	233.1	213.8	197.4	184.1	173.7	165.5	164.0	162.6
7.5°	345.1	305.8	249.4	215.2	186.3	161.1	140.3	124.7	112.8	112.8	108.4
10°	364.4	311.7	242.7	197.4	154.4	120.2	99.5	84.6	78.7	77.9	76.5
12.5°	391.2	322.9	237.5	174.4	120.2	87.6	75.0	69.8	67.5	66.8	66.1
15°	427.5	339.2	231.6	146.2	91.3	72.0	66.8	62.3	60.1	59.4	58.6
17.5°	462.4	354.0	219.0	117.3	74.2	65.3	59.4	55.7	52.7	52.0	52.0
20°	495.1	366.7	197.4	91.3	66.8	58.6	52.7	48.2	45.3	44.5	44.5
22.5°	529.2	377.1	170.7	74.2	60.9	52.0	46.0	41.6	38.6	37.9	37.1
25°	565.6	384.5	140.3	66.1	54.9	46.0	39.3	35.6	33.4	32.7	31.9
27.5°	604.9	387.4	111.3	60.1	48.2	40.1	34.1	30.4	28.9	28.2	28.2
30°	640.6	384.5	86.1	53.4	42.3	34.9	29.7	26.7	25.2	24.5	24.5
32.5°	677.7	377.1	69.0	47.5	37.1	29.7	25.2	23.0	22.3	21.5	21.5
35°	717.0	367.4	59.4	42.3	31.9	26.0	22.3	20.8	20.0	19.3	19.3
37.5°	763.0	355.5	54.2	37.9	28.2	23.0	19.3	18.6	17.8	17.8	17.8
40°	815.0	340.7	50.5	34.1	25.2	20.0	17.1	16.3	15.6	15.6	15.6
42.5°	869.9	323.6	46.8	30.4	22.3	17.1	14.8	14.8	14.1	14.1	13.4
45°	931.5	306.5	43.0	26.7	19.3	14.8	12.6	11.9	11.9	11.1	11.1
47.5°	1004.2	291.0	39.3	23.8	17.1	12.6	11.1	10.4	9.6	8.9	8.9
50°	1106.7	289.5	34.9	20.8	15.6	10.4	8.9	8.2	7.4	6.7	6.7
52.5°	1208.4	276.1	29.7	17.1	12.6	8.9	6.7	5.9	5.2	5.2	4.5
55°	1231.4	253.8	26.0	14.8	9.6	6.7	5.2	3.7	3.7	3.0	3.0
57.5°	1281.8	243.5	22.3	11.9	7.4	5.2	3.0	2.2	2.2	2.2	2.2
60°	1381.3	240.5	19.3	10.4	5.2	3.7	2.2	1.5	1.5	0.7	0.7
62.5°	1518.6	237.5	16.3	8.9	3.7	2.2	1.5	0.7	0.0	0.0	0.0
65°	1594.3	217.5	13.4	6.7	3.0	2.2	0.7	0.0	0.0	0.0	0.0
67.5°	1574.3	179.6	11.9	4.5	2.2	1.5	0.7	0.0	0.0	0.0	0.0
69°	1490.4	151.4	9.6	3.7	2.2	1.5	0.7	0.0	0.0	0.0	0.0
70°	1389.5	130.6	8.9	3.0	1.5	0.7	0.7	0.0	0.0	0.0	0.0
72.5°	986.4	68.3	5.9	2.2	1.5	0.7	0.0	0.0	0.0	0.0	0.0
75°	460.9	30.4	3.7	1.5	0.7	0.7	0.0	0.0	0.0	0.0	0.0
77.5°	101.7	14.1	2.2	1.5	0.7	0.0	0.0	0.0	0.0	0.0	0.0
80°	19.3	5.2	1.5	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	6.7	2.2	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	2.2	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.7	0.0	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)