

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: P231362

Luminaire Tested: **ARCH-M-AF48-50-D-U-T4W-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231362
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-AF48-50-D-U-T4W-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 305mA 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: 5121.9 lumens
Efficiency: N/A
Efficacy: 106.7 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 - G2

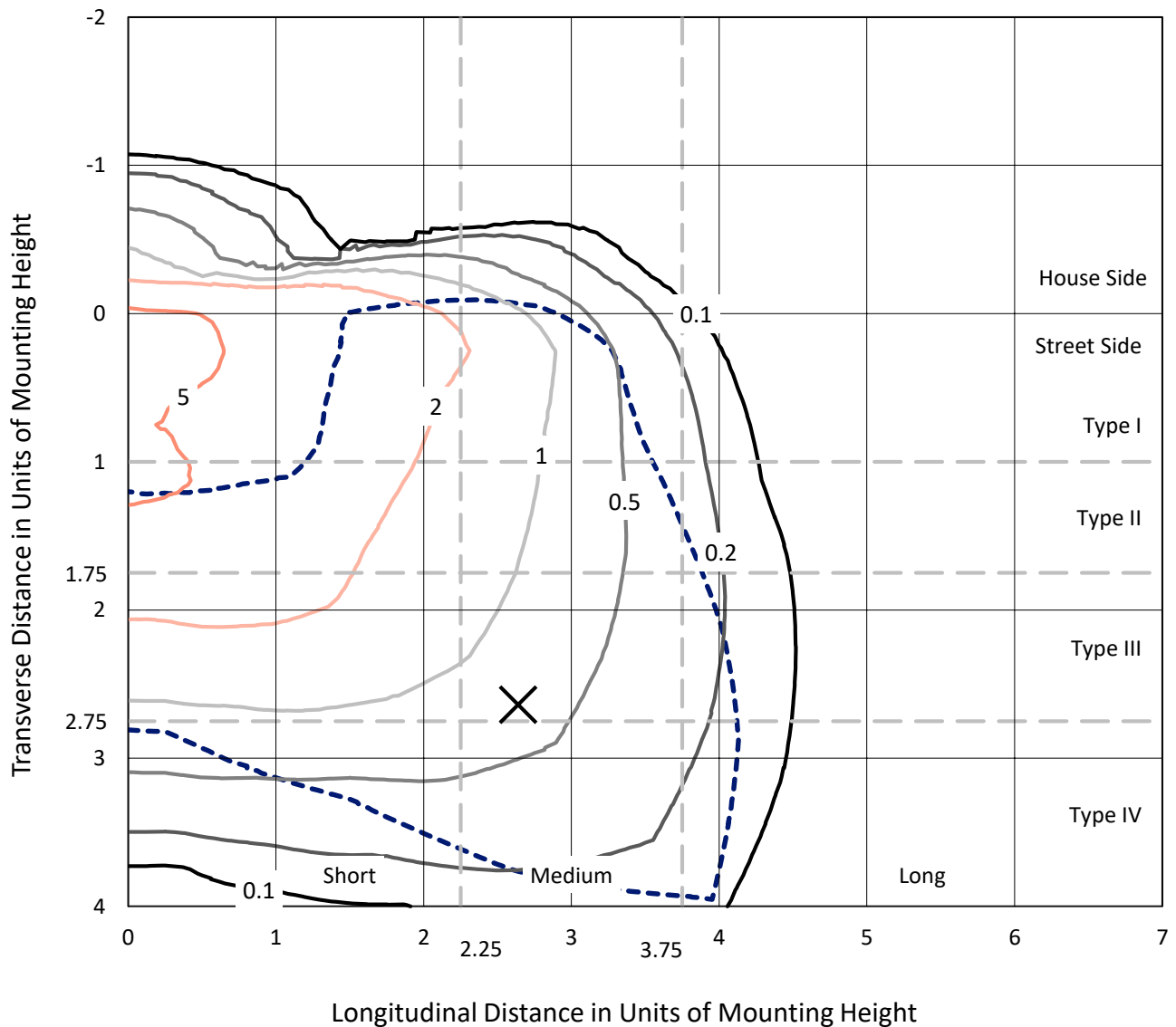
Input Watts (W): 48
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

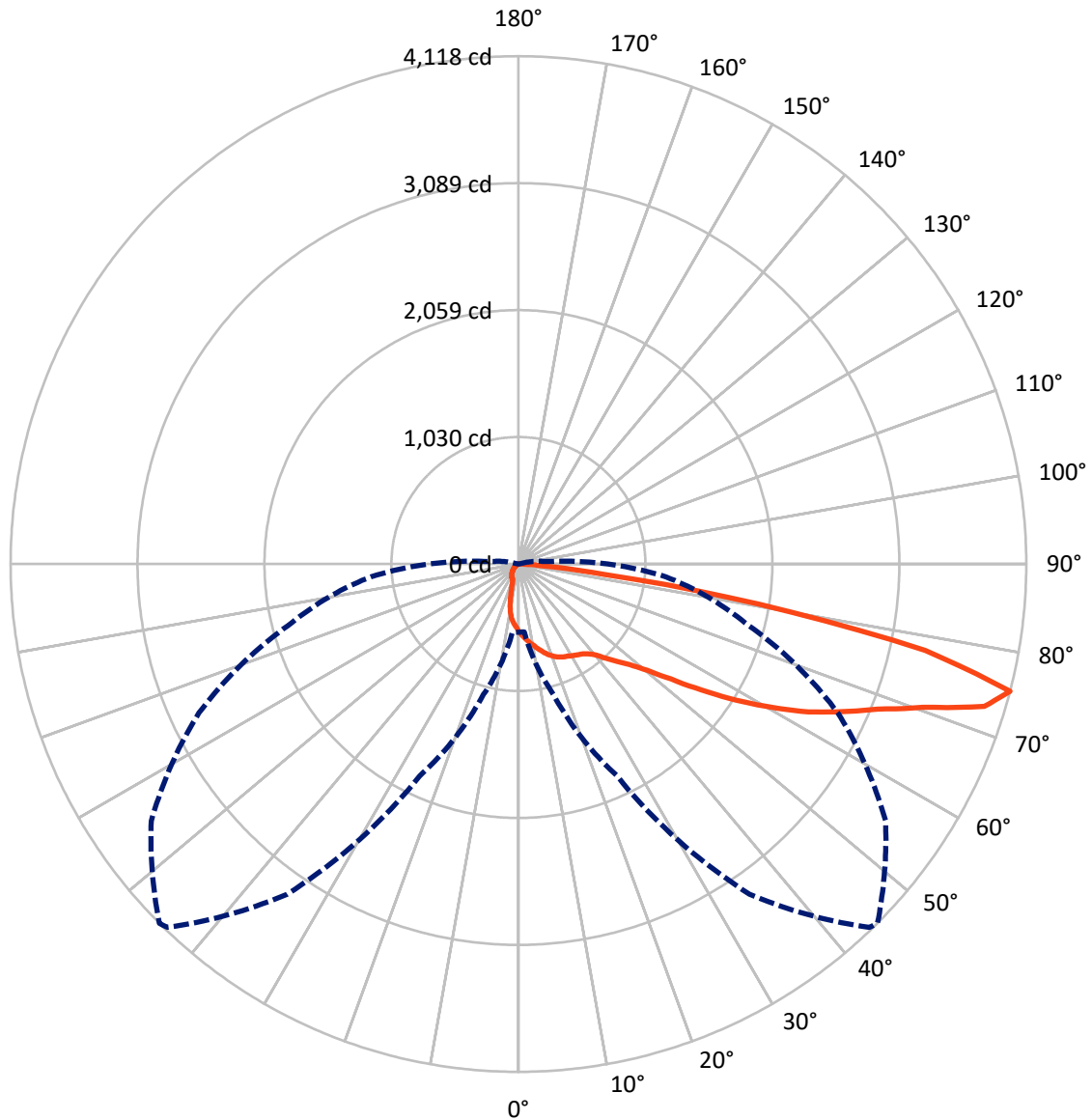


Based on 10 foot mounting height. Maximum calculated value = 7.3 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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

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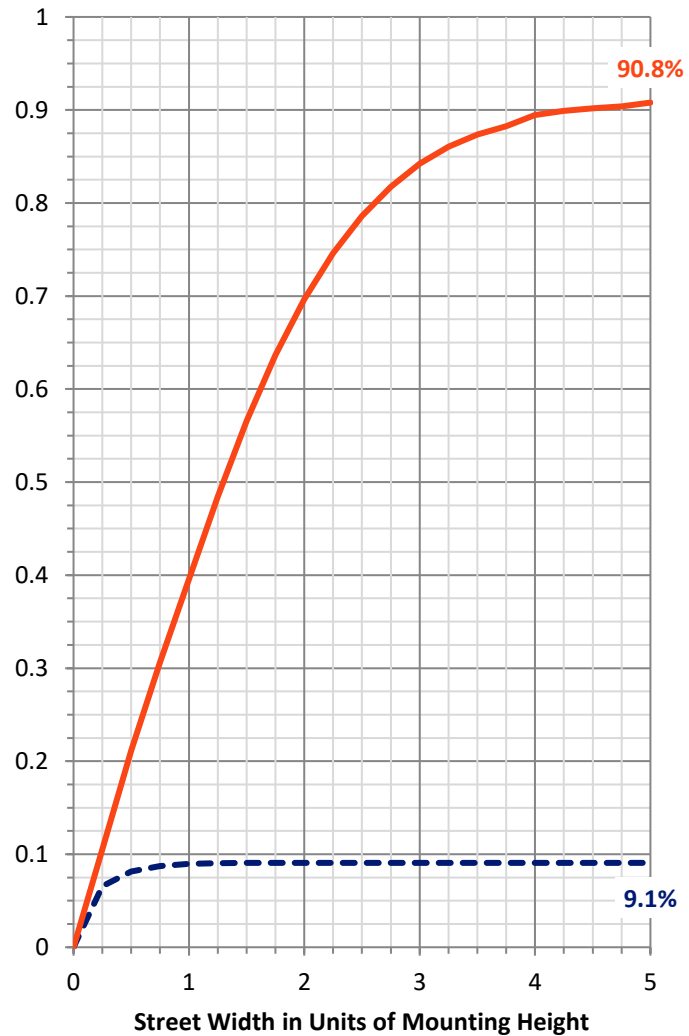
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	468.5	0.0	468.5
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	4653.4	0.0	4653.4
	% Fixture	90.9	0.0	90.9
Total	Lumens	5121.9	0.0	5121.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.7	1.0
10°-20°	146.5	2.9
20°-30°	242.6	4.7
30°-40°	351.1	6.9
40°-50°	574.9	11.2
50°-60°	1024.3	20.0
60°-70°	1505.8	29.4
70°-80°	1136.0	22.2
80°-90°	89.1	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°	5121.9	100.0
0°-180°	5121.9	100.0



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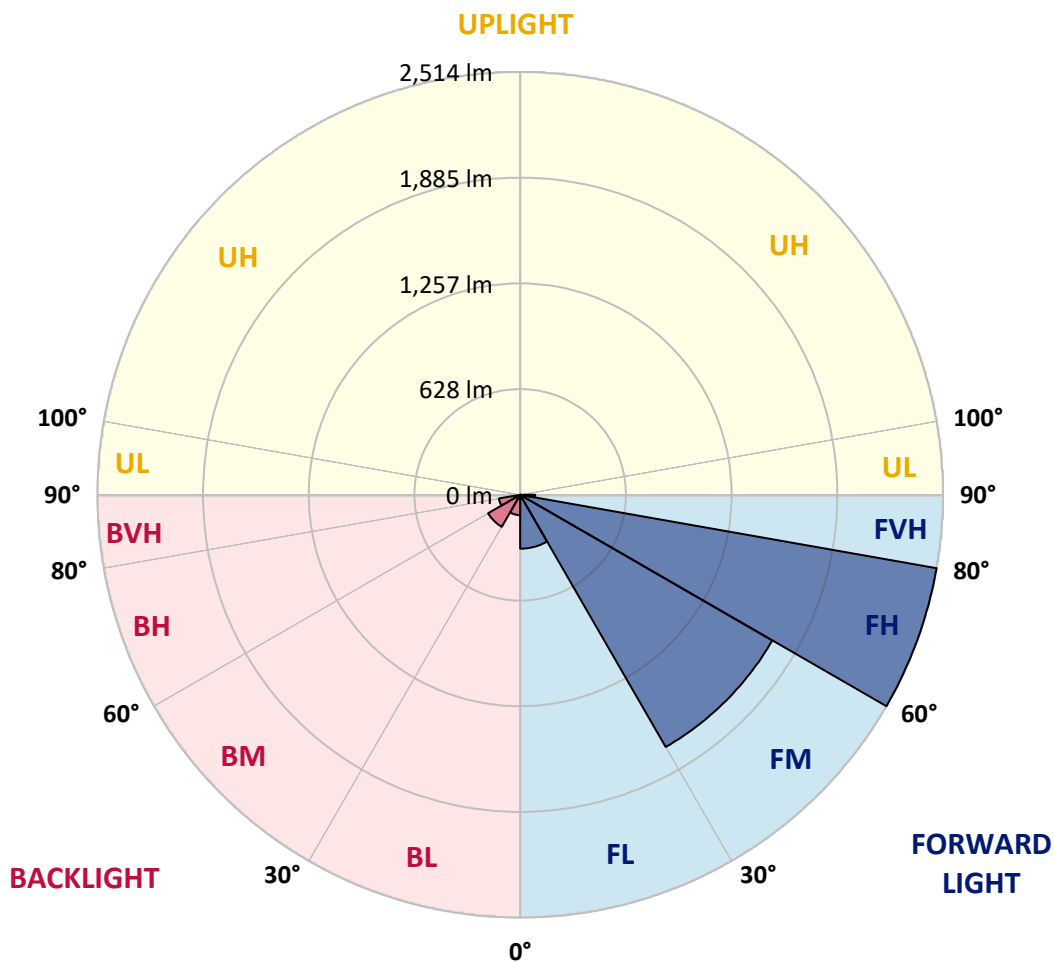
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	320.4	6.3			
FM	(30°-60°)	1730.7	33.8			
FH	(60°-80°)	2513.5	49.1			G2/5000
FVH	(80°-90°)	88.9	1.7			G1/100
BL	(0°-30°)	120.4	2.4	B1/500		
BM	(30°-60°)	219.5	4.3	B0/220		
BH	(60°-80°)	128.3	2.5	B1/500		G1/500
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: B1-U0-G2

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	547.8	547.8	547.8	547.8	547.8	547.8	547.8	547.8	547.8	547.8	547.8
2.5°	595.1	595.1	593.8	592.7	586.6	580.5	579.3	575.7	564.8	557.5	550.2
5°	644.8	646.0	643.5	637.5	624.2	610.8	609.7	600.0	579.3	564.8	549.0
7.5°	692.0	694.5	688.4	677.5	661.7	642.3	641.2	623.0	596.3	575.7	552.7
10°	732.0	732.0	723.5	710.2	693.3	672.7	670.2	649.6	619.3	593.8	563.5
12.5°	775.7	774.5	762.3	744.2	724.8	705.3	704.2	678.7	649.6	616.9	579.3
15°	815.7	813.2	797.5	780.5	760.0	739.3	738.1	712.7	682.3	643.5	602.3
17.5°	837.5	836.3	821.7	804.8	787.8	772.0	770.8	744.2	711.5	671.5	625.4
20°	841.1	842.3	830.2	815.7	806.0	797.5	797.5	773.2	738.1	695.7	649.6
22.5°	842.3	846.0	837.5	818.1	815.7	816.8	819.3	799.9	763.5	723.5	675.0
25°	850.8	855.7	849.6	826.5	824.2	832.7	835.0	826.5	793.8	753.8	704.2
27.5°	867.8	872.6	867.8	838.7	835.0	843.5	846.0	850.8	826.5	783.0	734.5
30°	901.7	903.0	892.0	855.7	848.4	859.3	863.0	876.3	856.8	810.8	763.5
32.5°	961.1	949.0	916.3	867.8	861.7	873.8	877.5	892.0	884.8	837.5	793.8
35°	1082.3	1019.3	944.2	884.8	878.7	890.8	895.7	916.3	919.9	875.0	831.5
37.5°	1081.1	1024.1	1009.6	917.5	909.0	917.5	923.5	949.0	963.5	924.7	886.0
40°	1157.5	1133.2	1133.2	979.3	951.4	963.5	969.6	995.0	1020.5	990.2	950.2
42.5°	1397.5	1381.7	1364.7	1098.0	1010.8	1044.7	1048.3	1064.1	1094.5	1084.7	1037.5
45°	1665.3	1650.7	1585.3	1299.2	1112.6	1118.7	1127.2	1152.6	1196.2	1214.4	1158.7
47.5°	1875.0	1860.4	1804.7	1541.7	1271.3	1218.0	1218.0	1267.7	1335.6	1381.7	1328.3
50°	2043.4	2026.5	1992.5	1799.8	1532.0	1361.0	1353.8	1412.0	1512.5	1584.0	1547.7
52.5°	2207.0	2157.3	2136.7	2066.5	1826.5	1568.3	1549.0	1590.1	1729.5	1818.0	1787.7
55°	2316.1	2308.8	2287.0	2311.3	2135.5	1820.4	1803.5	1812.0	1986.5	2045.8	2008.3
57.5°	2417.9	2416.7	2465.2	2577.9	2472.5	2108.8	2082.2	2068.8	2234.9	2220.3	2253.0
60°	2544.0	2522.2	2634.8	2796.0	2781.5	2390.0	2359.7	2333.0	2425.2	2384.0	2546.3
62.5°	2550.0	2544.0	2773.0	3004.5	3088.1	2676.0	2641.0	2545.2	2591.2	2544.0	2826.3
65°	2318.5	2348.8	2831.2	3114.8	3345.0	2927.0	2884.5	2735.5	2739.1	2707.5	3156.0
67.5°	2266.4	2282.2	2671.2	3233.5	3530.5	3180.3	3140.3	2954.8	2911.2	2913.6	3351.1
70°	2136.7	2161.0	2472.5	3225.1	3677.2	3518.3	3478.4	3277.2	3171.8	3054.2	3200.8
72.5°	1632.5	1673.8	2083.4	2827.5	3637.2	3960.8	3949.8	3685.7	3276.0	2804.5	2421.5
75°	552.7	551.5	1094.5	1899.2	3267.5	4096.5	4118.3	3634.7	2857.8	1934.3	1202.3
77.5°	118.8	120.0	225.5	769.6	2170.7	3289.3	3373.0	2741.5	1843.5	861.7	275.1
80°	58.2	59.4	93.3	203.6	867.8	1844.7	1975.5	1409.5	681.2	172.1	46.0
82.5°	29.1	30.3	48.5	107.8	321.2	655.7	700.5	518.7	195.2	97.0	23.0
85°	10.9	10.9	24.2	64.2	146.7	154.0	189.0	150.3	117.5	78.8	6.0
87.5°	2.5	2.5	13.3	31.5	65.5	48.5	48.5	46.0	71.5	53.3	2.5
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°	547.8	547.8	547.8	547.8	547.8	547.8	547.8	547.8	547.8	547.8	547.8
2.5°	546.6	541.8	533.3	524.8	518.7	511.5	507.8	504.2	503.0	501.8	504.2
5°	540.5	533.3	517.5	504.2	492.0	482.3	475.1	467.8	464.2	461.8	463.0
7.5°	540.5	529.7	506.6	486.0	466.6	446.0	425.4	409.7	397.5	390.3	391.5
10°	546.6	532.0	501.8	473.9	437.5	393.9	349.0	315.1	292.1	278.8	278.8
12.5°	560.0	540.5	503.0	459.3	397.5	321.2	253.3	212.1	195.2	185.5	186.7
15°	578.1	555.1	509.0	440.0	341.8	238.8	177.0	150.3	150.3	152.7	154.0
17.5°	598.7	573.3	513.9	410.8	270.3	170.9	139.4	137.0	140.6	146.7	146.7
20°	619.3	591.5	516.3	364.8	202.4	135.7	132.1	132.1	134.5	140.6	141.8
22.5°	644.8	614.5	513.9	307.8	151.5	128.5	127.3	127.3	127.3	134.5	134.5
25°	671.5	641.2	504.2	247.2	128.5	123.6	122.4	121.2	121.2	127.3	128.5
27.5°	701.7	669.0	481.2	189.0	121.2	118.8	117.5	115.2	115.2	120.0	120.0
30°	732.0	700.5	446.0	143.0	115.2	114.0	111.5	109.0	106.7	111.5	111.5
32.5°	764.8	733.3	400.0	114.0	106.7	106.7	105.5	101.8	99.4	101.8	103.0
35°	808.4	770.8	347.8	99.4	95.7	95.7	95.7	94.5	89.7	92.1	92.1
37.5°	866.5	823.0	287.2	92.1	87.3	84.8	84.8	84.8	81.2	82.4	82.4
40°	940.5	883.5	229.0	86.0	81.2	75.2	72.7	74.0	71.5	71.5	70.3
42.5°	1041.1	949.0	172.1	81.2	76.3	67.8	63.0	61.8	59.4	58.2	58.2
45°	1185.3	1029.0	123.6	76.3	72.7	59.4	54.5	50.9	44.8	41.2	41.2
47.5°	1372.0	1119.8	92.1	71.5	69.0	52.1	46.0	38.8	30.3	27.9	27.9
50°	1599.8	1221.7	77.5	64.2	63.0	46.0	36.3	25.5	17.0	14.5	15.8
52.5°	1821.6	1317.5	69.0	57.0	55.8	40.0	26.7	13.3	7.3	7.3	7.3
55°	2008.3	1385.3	63.0	50.9	48.5	31.5	14.5	6.0	3.7	3.7	3.7
57.5°	2176.7	1424.0	57.0	44.8	38.8	21.8	6.0	2.5	2.5	1.2	1.2
60°	2330.7	1447.1	49.7	38.8	30.3	12.1	2.5	1.2	1.2	0.0	0.0
62.5°	2482.2	1464.0	42.5	31.5	23.0	4.8	1.2	1.2	0.0	0.0	0.0
65°	2597.3	1458.0	34.0	25.5	14.5	2.5	1.2	0.0	0.0	0.0	0.0
67.5°	2593.7	1375.6	25.5	19.4	7.3	1.2	0.0	0.0	0.0	0.0	0.0
70°	2319.7	1158.7	17.0	12.1	2.5	1.2	0.0	0.0	0.0	0.0	0.0
72.5°	1645.8	743.0	10.9	7.3	1.2	0.0	0.0	0.0	0.0	0.0	0.0
75°	724.8	225.5	6.0	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	141.8	52.1	3.7	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	34.0	6.0	1.2	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	14.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	3.7	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.5	1.2	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)