

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: P231036

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231036
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29635)
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
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 240mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5586.4 lumens
Efficiency: N/A
Efficacy: 147.0 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type II - 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

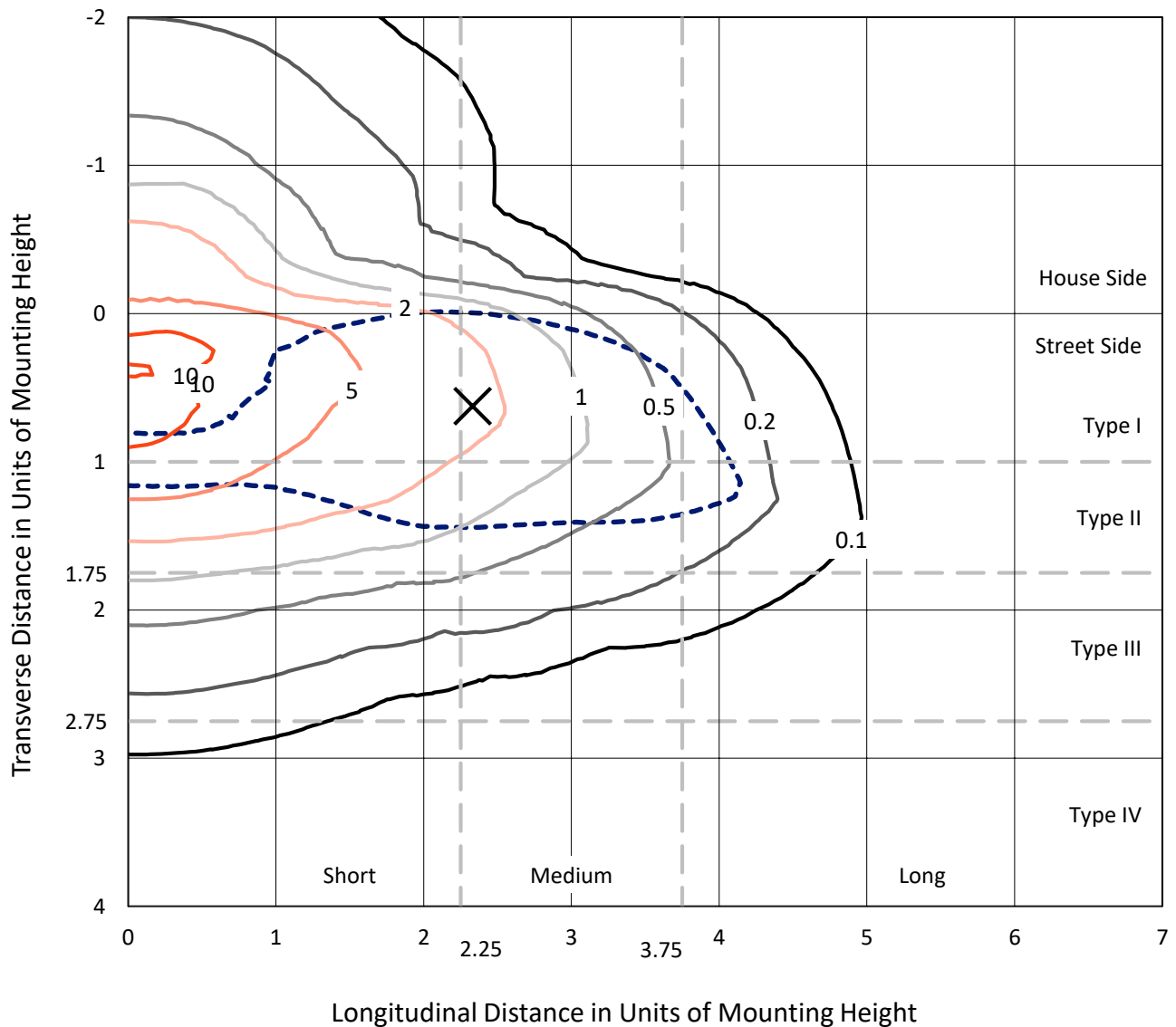


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

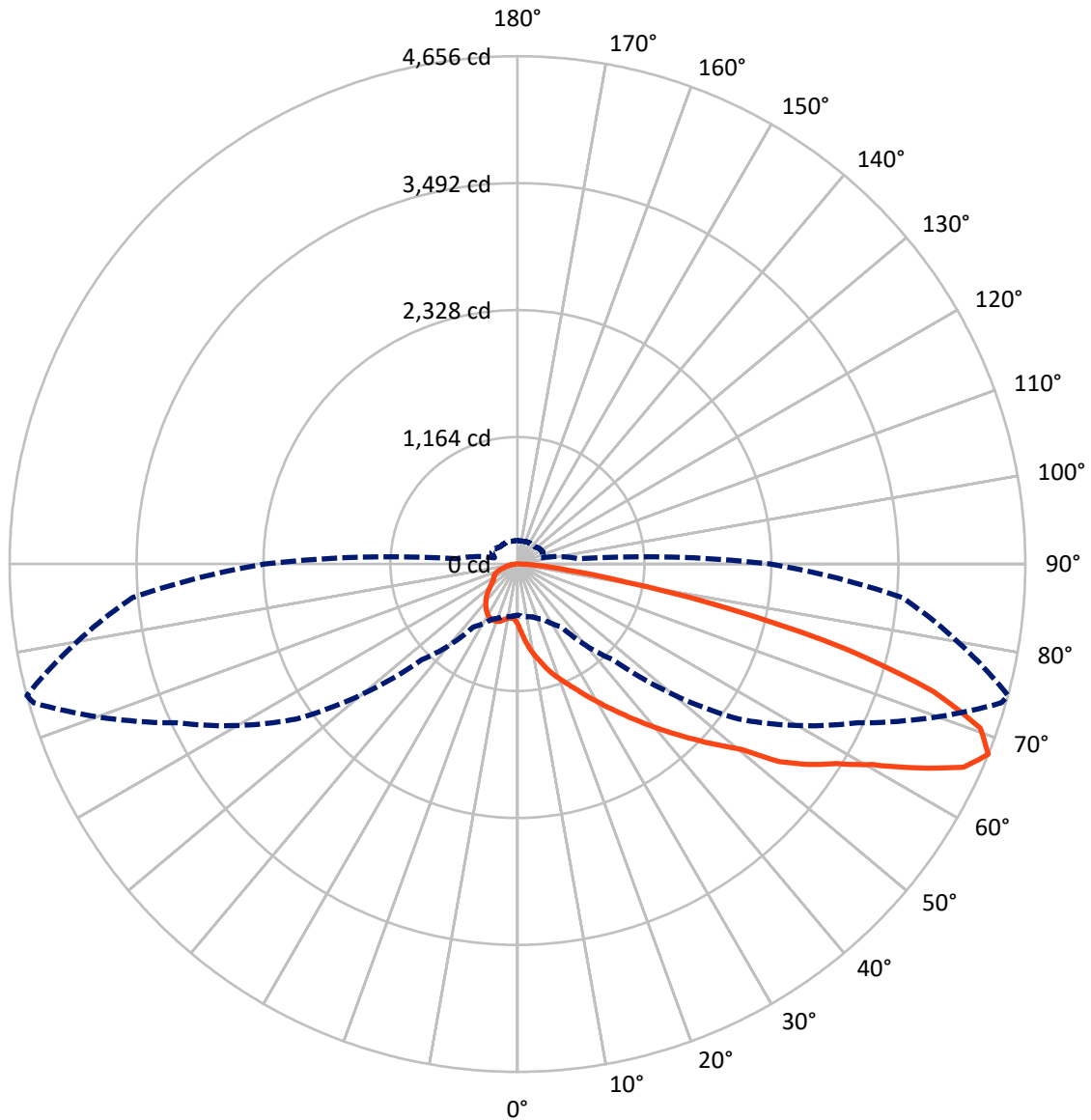


Based on 10 foot mounting height. Maximum calculated value = 11.6 fc
 Type II - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	954.0	0.0	954.0
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	4632.4	0.0	4632.4
	% Fixture	82.9	0.0	82.9
Total	Lumens	5586.4	0.0	5586.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.0	1.2
10°-20°	235.0	4.2
20°-30°	428.6	7.7
30°-40°	703.6	12.6
40°-50°	1017.5	18.2
50°-60°	1199.1	21.5
60°-70°	1165.2	20.9
70°-80°	647.7	11.6
80°-90°	124.6	2.2
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°	5586.4	100.0
0°-180°	5586.4	100.0

Coefficient of Utilization



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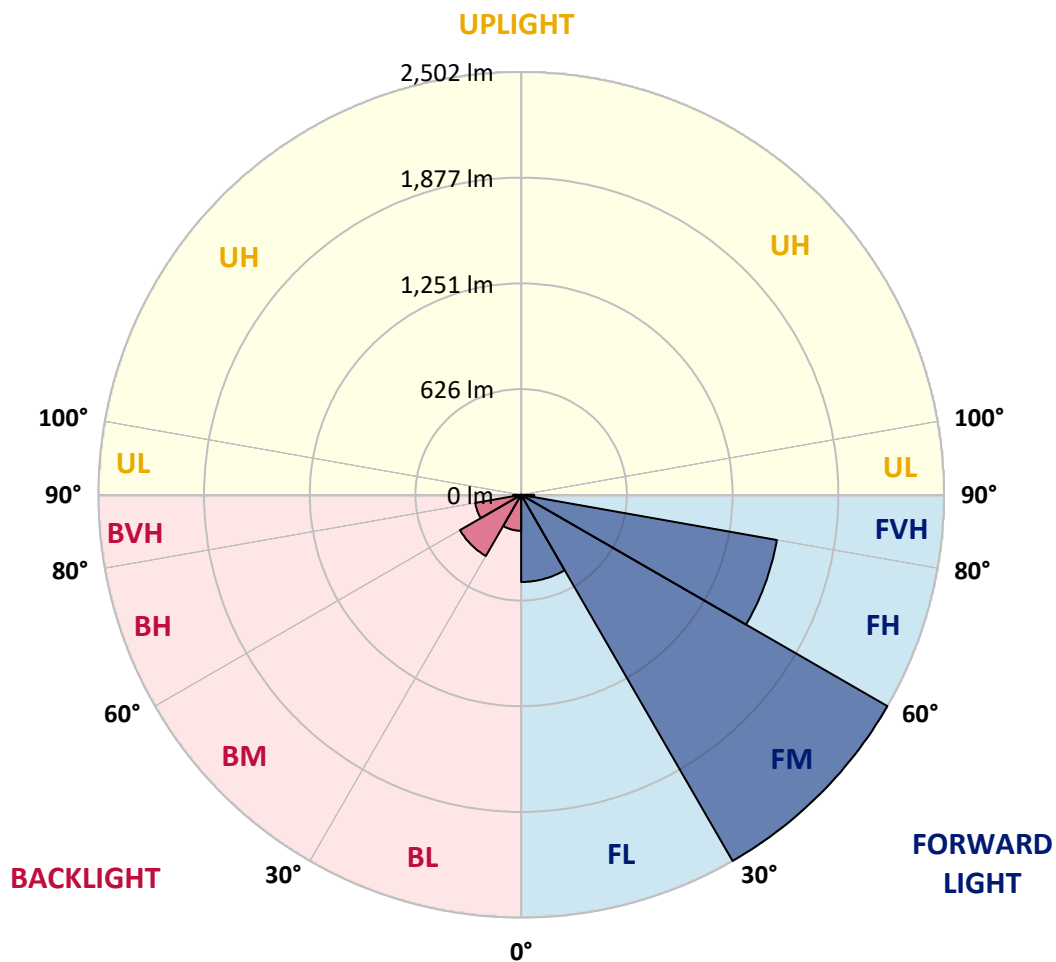
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	515.8	9.2			
FM (30°-60°)	2502.4	44.8			
FH (60°-80°)	1536.7	27.5			G1/1800
FVH (80°-90°)	77.5	1.4			G1/100
BL (0°-30°)	212.9	3.8	B1/500		
BM (30°-60°)	417.8	7.5	B1/1000		
BH (60°-80°)	276.2	4.9	B1/500		G1/500
BVH (80°-90°)	47.0	0.8			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	553.5	553.5	553.5	553.5	553.5	553.5	553.5	553.5	553.5	553.5	553.5
2.5°	784.8	787.2	782.5	771.9	756.8	728.8	704.2	661.0	622.5	617.8	576.9
5°	922.6	925.0	919.1	906.2	889.9	859.5	825.6	769.6	707.7	696.0	609.6
7.5°	1017.2	1018.3	1011.3	998.5	985.6	955.3	921.4	858.4	782.5	773.1	651.6
10°	1097.7	1100.1	1090.8	1082.6	1068.6	1038.2	1003.2	936.6	858.4	845.5	694.9
12.5°	1172.5	1174.9	1169.0	1162.0	1157.4	1129.3	1090.8	1011.3	927.3	913.3	746.2
15°	1222.7	1225.1	1226.2	1235.5	1241.5	1221.5	1183.0	1096.6	1002.0	989.2	807.0
17.5°	1208.7	1214.5	1232.0	1265.9	1302.1	1303.3	1271.7	1180.7	1075.5	1061.5	868.9
20°	1167.8	1172.5	1193.5	1244.9	1316.1	1357.0	1354.7	1265.9	1144.5	1129.3	926.1
22.5°	1201.7	1207.5	1207.5	1239.1	1309.2	1385.1	1415.5	1350.0	1213.4	1199.4	983.4
25°	1346.5	1350.0	1325.4	1312.7	1338.3	1408.4	1465.6	1441.1	1297.4	1281.1	1045.3
27.5°	1548.5	1542.7	1512.3	1461.0	1432.9	1451.6	1510.0	1527.5	1394.4	1374.5	1109.4
30°	1749.5	1745.9	1710.9	1641.9	1578.9	1539.2	1559.1	1604.6	1499.5	1476.1	1171.4
32.5°	1937.5	1931.6	1893.1	1812.5	1741.3	1667.6	1629.2	1674.7	1611.6	1584.8	1240.2
35°	2110.2	2095.1	2056.5	1972.5	1898.9	1828.8	1734.2	1741.3	1733.1	1705.1	1316.1
37.5°	2250.4	2238.7	2196.7	2118.4	2040.2	1973.7	1874.4	1817.2	1863.8	1837.0	1403.7
40°	2374.2	2361.4	2318.1	2239.9	2167.5	2104.4	2026.2	1909.4	2011.0	1980.6	1501.8
42.5°	2467.7	2458.3	2423.3	2346.1	2276.1	2218.9	2180.3	2026.2	2164.0	2134.8	1609.3
45°	2517.8	2508.5	2489.9	2427.9	2363.7	2319.3	2322.8	2165.2	2323.9	2299.5	1736.6
47.5°	2455.9	2463.0	2479.3	2467.7	2427.9	2406.9	2450.1	2308.8	2502.6	2479.3	1874.4
50°	2290.1	2297.1	2362.5	2443.1	2457.1	2482.8	2564.5	2474.6	2691.9	2673.2	2044.9
52.5°	1882.5	1921.1	2102.1	2294.8	2426.7	2533.0	2691.9	2721.0	3010.6	3010.6	2346.1
55°	1422.4	1456.3	1663.0	1999.4	2308.8	2537.7	2785.3	2888.0	3240.7	3245.4	2503.8
57.5°	1152.7	1173.6	1275.3	1619.7	2061.2	2479.3	2896.2	3031.7	3432.2	3453.3	2707.0
60°	935.4	947.2	1013.6	1253.1	1719.1	2321.7	2975.7	3237.2	3705.5	3734.7	2966.3
62.5°	752.1	763.7	808.1	951.8	1348.9	2026.2	2961.6	3450.9	4069.9	4117.8	3306.1
65°	600.3	613.2	642.3	731.1	999.6	1659.5	2817.9	3560.7	4447.1	4493.8	3531.5
67.5°	468.3	480.0	499.8	558.2	704.2	1241.5	2478.1	3445.1	4616.5	4656.2	3543.2
70°	353.8	359.7	376.0	413.4	503.3	824.5	1939.7	3057.4	4464.6	4500.8	3309.7
72.5°	274.5	273.2	282.6	301.3	351.5	567.5	1285.7	2486.3	3947.3	3984.6	2823.9
75°	224.2	223.1	228.9	234.8	254.6	380.7	759.1	1872.0	3185.9	3114.6	2118.4
77.5°	189.1	188.0	193.8	195.1	203.2	262.8	432.1	1232.0	2125.5	2002.8	1193.5
80°	160.0	158.9	165.8	168.2	174.0	192.7	248.8	666.9	1067.3	1011.3	569.9
82.5°	120.3	125.0	137.8	143.6	150.7	142.5	154.2	294.3	495.2	473.0	247.6
85°	58.4	68.9	103.9	115.6	123.8	89.9	105.1	139.0	223.1	212.6	100.5
87.5°	19.8	17.5	61.9	73.6	80.6	40.9	58.4	77.0	92.3	84.1	31.5
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°	553.5	553.5	553.5	553.5	553.5	553.5	553.5	553.5	553.5	553.5	553.5
2.5°	559.3	541.9	516.2	496.3	483.4	473.0	468.3	467.2	464.8	463.6	463.6
5°	571.1	539.5	499.8	478.8	473.0	468.3	470.7	471.8	471.8	471.8	471.8
7.5°	588.6	544.2	496.3	482.3	481.2	481.2	488.2	491.6	494.0	494.0	494.0
10°	611.9	552.4	502.2	490.5	494.0	496.3	504.5	509.1	511.5	512.7	513.8
12.5°	643.4	569.9	513.8	504.5	509.1	510.4	516.2	518.5	520.9	522.0	522.0
15°	685.5	595.6	532.5	520.9	522.0	520.9	520.9	518.5	517.3	517.3	519.7
17.5°	728.8	620.1	548.9	532.5	527.8	518.5	511.5	505.6	502.2	499.8	501.0
20°	771.9	642.3	558.2	534.9	522.0	506.9	494.0	485.8	481.2	476.5	478.8
22.5°	815.2	663.3	561.7	527.8	509.1	487.0	473.0	460.1	449.6	442.6	443.8
25°	863.1	686.7	561.7	519.7	491.6	468.3	450.8	429.7	414.6	408.8	411.1
27.5°	910.9	706.6	555.9	504.5	471.8	448.5	422.8	398.2	388.9	385.3	386.6
30°	958.8	721.7	543.1	485.8	450.8	425.1	391.2	374.9	363.1	353.8	355.1
32.5°	1006.7	732.2	525.5	462.5	428.6	395.9	367.9	349.1	328.2	316.5	317.6
35°	1061.5	740.4	504.5	439.2	404.1	370.2	349.1	318.9	296.7	287.2	285.0
37.5°	1118.8	746.2	482.3	413.4	379.5	351.5	330.5	293.1	272.1	259.2	258.1
40°	1180.7	748.6	455.4	386.6	356.2	339.8	306.0	277.9	241.7	233.5	233.5
42.5°	1254.2	747.4	428.6	359.7	330.5	313.0	288.5	275.6	244.1	235.9	231.2
45°	1338.3	747.4	399.4	328.2	304.8	279.1	268.6	260.4	239.4	243.0	245.2
47.5°	1434.1	745.1	364.4	302.5	283.8	261.6	255.7	238.2	230.1	232.4	234.8
50°	1566.0	748.6	332.9	281.4	268.6	249.9	243.0	233.5	230.1	231.2	230.1
52.5°	1749.5	736.9	302.5	268.6	257.0	232.4	232.4	231.2	232.4	231.2	231.2
55°	1849.8	711.3	280.3	261.6	248.8	224.2	228.9	231.2	233.5	232.4	232.4
57.5°	1992.3	693.7	262.8	257.0	244.1	221.9	226.6	231.2	232.4	231.2	231.2
60°	2160.5	682.0	251.0	258.1	240.6	221.9	227.7	231.2	230.1	228.9	228.9
62.5°	2355.5	677.3	243.0	261.6	237.1	223.1	227.7	231.2	226.6	225.4	225.4
65°	2429.1	635.3	232.4	263.9	239.4	223.1	226.6	227.7	221.9	220.8	219.5
67.5°	2315.8	562.9	217.2	259.2	246.4	223.1	223.1	221.9	214.9	213.7	211.3
70°	2062.4	467.2	193.8	244.1	251.0	224.2	218.4	212.6	205.5	205.5	200.9
72.5°	1688.7	367.9	163.5	217.2	247.6	227.7	209.1	200.9	192.7	192.7	188.0
75°	1216.9	274.5	130.8	181.1	232.4	226.6	197.3	186.9	177.5	176.4	170.5
77.5°	693.7	192.7	106.3	141.3	206.7	220.8	186.9	170.5	160.0	156.5	153.0
80°	356.2	129.6	86.4	111.0	171.7	204.4	178.7	151.8	140.1	134.3	128.5
82.5°	169.3	86.4	66.6	81.7	129.6	178.7	168.2	130.8	117.9	111.0	103.9
85°	75.9	51.4	44.4	52.6	92.3	139.0	148.3	107.4	92.3	115.6	85.2
87.5°	24.6	23.3	23.3	24.6	44.4	60.8	108.6	79.4	73.6	60.8	51.4
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)