

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: P234827

Luminaire Tested: **ARCH-M-AF48-130-D-U-T3-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234827
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-AF48-130-D-U-T3-8027-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 845mA 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: 9432 lumens
Efficiency: N/A
Efficacy: 72.0 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 - G2

Input Watts (W): 131
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



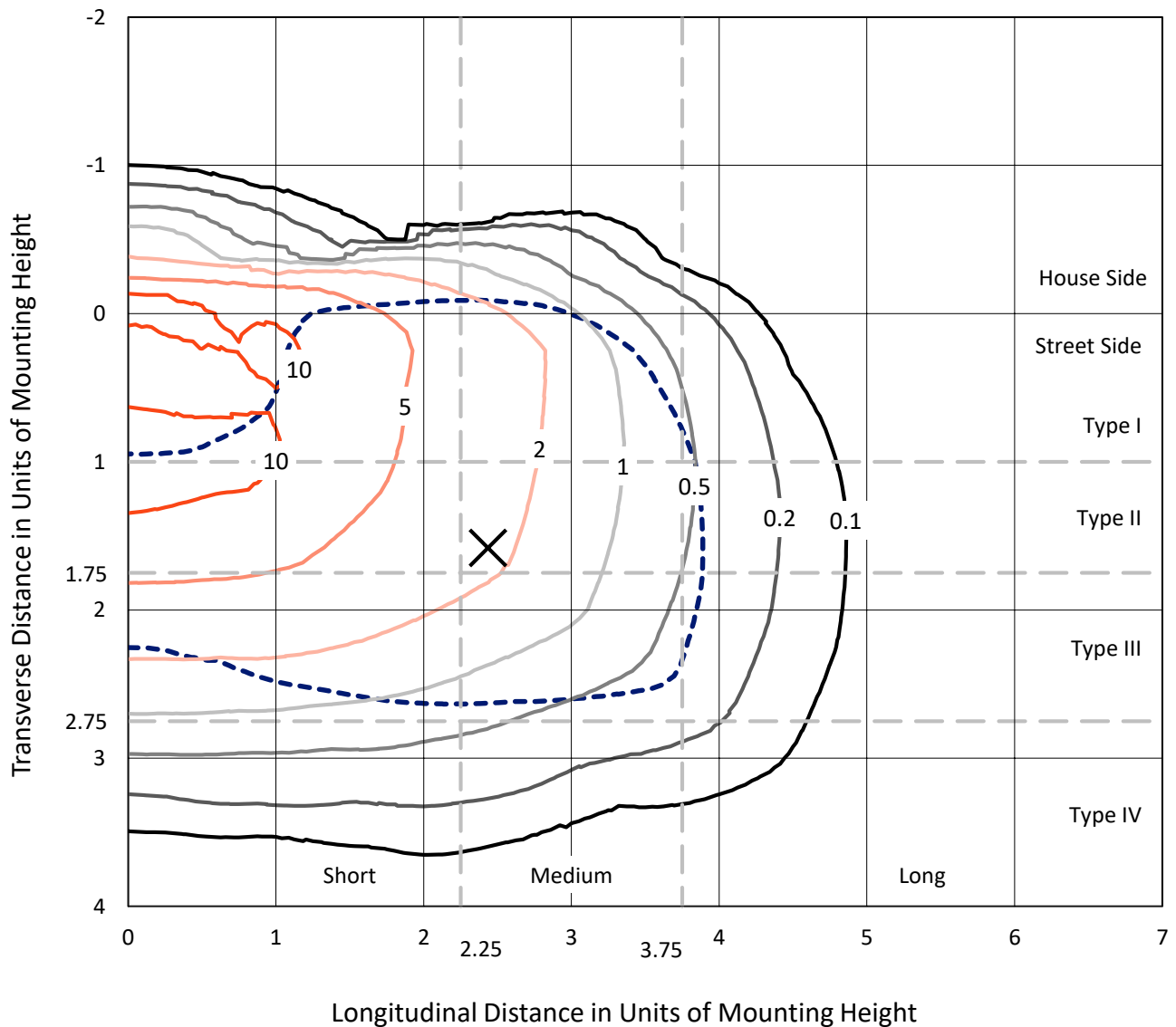


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

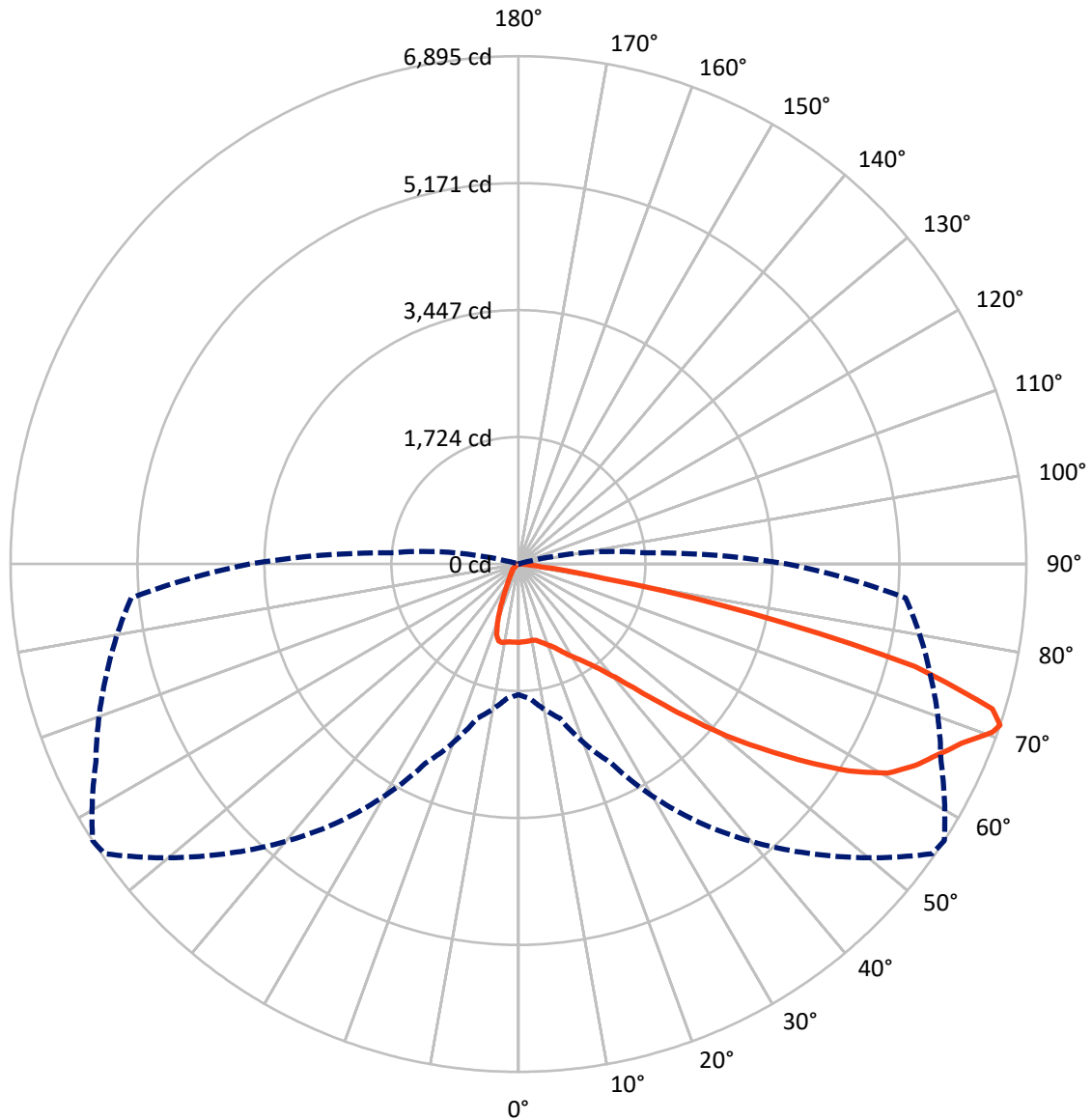


Based on 10 foot mounting height. Maximum calculated value = 13.3 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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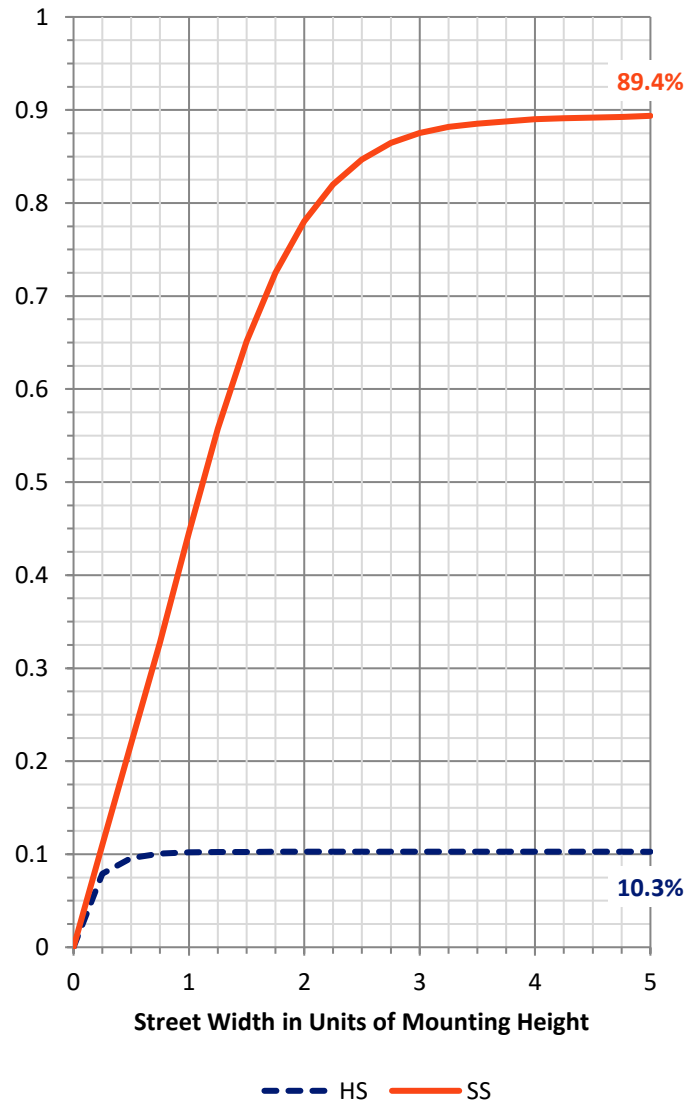
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	977.5	0.0	977.5
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	8454.6	0.0	8454.6
	% Fixture	89.6	0.0	89.6
Total	Lumens	9432.0	0.0	9432.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.1	1.1
10°-20°	267.7	2.8
20°-30°	417.6	4.4
30°-40°	705.7	7.5
40°-50°	1370.7	14.5
50°-60°	2301.9	24.4
60°-70°	2747.1	29.1
70°-80°	1447.7	15.3
80°-90°	73.6	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°	9432.0	100.0
0°-180°	9432.0	100.0



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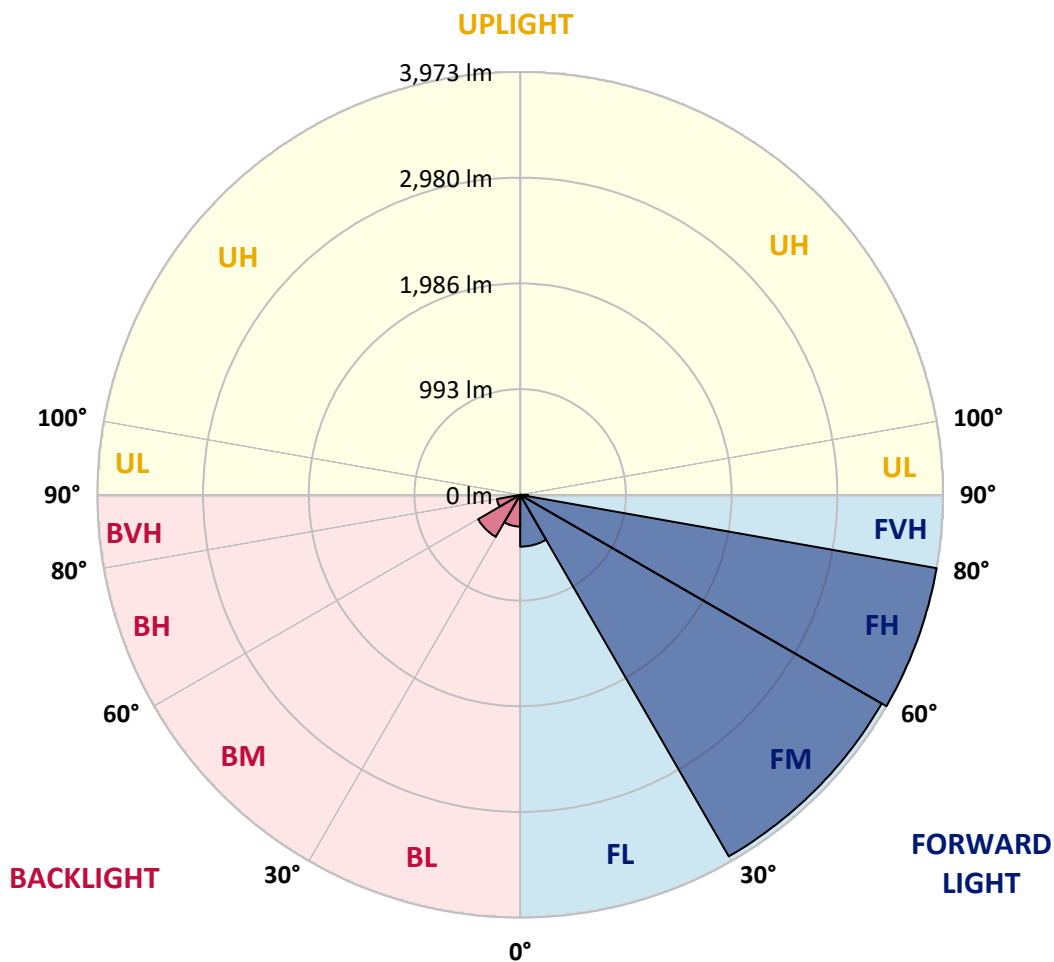
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	487.0	5.2			
FM	(30°-60°)	3921.9	41.6			
FH	(60°-80°)	3972.8	42.1			G2/5000
FVH	(80°-90°)	72.9	0.8			G1/100
BL	(0°-30°)	298.4	3.2	B1/500		
BM	(30°-60°)	456.4	4.8	B1/1000		
BH	(60°-80°)	222.0	2.4	B1/500		G1/500
BVH	(80°-90°)	0.7	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 III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	1066.0	1066.0	1066.0	1066.0	1066.0	1066.0	1066.0	1066.0	1066.0	1066.0	1066.0
2.5°	1050.6	1050.6	1050.6	1052.8	1055.0	1055.0	1059.4	1057.2	1057.2	1057.2	1061.6
5°	1022.0	1024.2	1026.4	1030.8	1039.6	1046.2	1057.2	1057.2	1059.4	1063.8	1066.0
7.5°	982.4	984.6	991.2	1000.0	1017.6	1033.0	1050.6	1055.0	1061.6	1072.6	1076.9
10°	958.3	962.7	971.5	982.4	1002.2	1022.0	1044.0	1050.6	1070.4	1090.1	1101.1
12.5°	951.7	953.9	962.7	980.2	1004.4	1028.6	1057.2	1063.8	1092.3	1123.1	1140.7
15°	962.7	964.9	969.3	989.0	1017.6	1048.4	1085.7	1094.5	1129.7	1164.9	1186.8
17.5°	982.4	982.4	986.8	1004.4	1035.2	1070.4	1118.7	1131.9	1171.5	1211.0	1235.2
20°	995.6	995.6	1002.2	1019.8	1055.0	1101.1	1158.3	1175.9	1219.8	1263.8	1285.7
22.5°	1008.8	1011.0	1017.6	1037.4	1076.9	1140.7	1206.6	1224.2	1274.8	1320.9	1342.9
25°	1046.2	1044.0	1046.2	1063.8	1109.9	1189.0	1272.6	1294.5	1347.3	1397.8	1408.8
27.5°	1149.5	1145.1	1116.5	1105.5	1140.7	1239.6	1356.1	1378.1	1439.6	1490.1	1490.1
30°	1386.8	1378.1	1307.7	1217.6	1189.0	1285.7	1435.2	1466.0	1545.1	1589.0	1575.9
32.5°	1688.0	1668.2	1578.1	1424.2	1309.9	1347.3	1518.7	1553.9	1655.0	1692.3	1663.8
35°	2017.6	2015.4	1903.3	1705.5	1542.9	1474.8	1626.4	1668.2	1795.6	1828.6	1782.5
37.5°	2367.1	2375.9	2301.2	2028.6	1837.4	1683.6	1769.3	1817.6	1973.7	2013.2	1969.3
40°	2756.1	2753.9	2725.3	2402.3	2191.3	1980.3	1975.9	2019.8	2208.8	2270.4	2208.8
42.5°	3248.4	3244.0	3140.7	2850.6	2619.8	2367.1	2277.0	2292.4	2503.4	2604.5	2514.3
45°	3749.5	3718.8	3600.1	3349.5	3145.1	2846.2	2674.8	2674.8	2855.0	2993.5	2852.8
47.5°	4028.7	3997.9	3949.5	3811.1	3749.5	3415.5	3162.7	3131.9	3272.6	3413.3	3215.5
50°	4395.7	4395.7	4274.8	4222.1	4327.6	4092.4	3701.2	3670.4	3738.5	3850.6	3591.3
52.5°	4685.8	4633.1	4547.4	4593.5	4894.6	4786.9	4239.7	4180.3	4233.1	4261.6	3918.8
55°	4806.7	4756.2	4749.6	4918.8	5384.7	5235.3	4791.3	4738.6	4734.2	4593.5	4204.5
57.5°	4830.9	4786.9	4870.4	5167.2	5861.7	5602.3	5340.8	5301.2	5178.1	4826.5	4496.8
60°	4626.5	4648.5	4850.7	5303.4	6143.0	5921.0	5804.5	5762.8	5479.2	5024.3	4822.1
62.5°	4206.7	4259.4	4637.5	5316.6	6039.7	6050.7	6061.7	6033.1	5712.2	5204.5	5149.6
65°	3710.0	3725.4	4180.3	5134.2	5859.5	6011.1	6250.7	6248.5	5890.2	5406.7	5518.8
67.5°	3057.2	3083.6	3477.0	4518.8	5499.0	5993.5	6499.1	6492.5	6092.5	5637.5	5738.6
70°	2274.8	2307.7	2626.4	3514.4	4694.6	5773.8	6824.3	6828.7	6305.6	5813.3	5586.9
71°	1773.7	1833.0	2167.1	2984.7	4283.6	5551.8	6855.1	6894.7	6329.8	5789.1	5274.8
72.5°	870.4	940.7	1360.5	2101.1	3525.4	5055.1	6652.9	6729.8	6178.2	5488.0	4510.0
75°	226.4	239.6	406.6	859.4	1890.2	3349.5	5365.0	5560.6	5050.7	4178.1	2756.1
77.5°	142.9	147.3	191.2	334.1	707.7	1272.6	3151.7	3248.4	2885.8	2116.5	971.5
80°	101.1	103.3	120.9	215.4	413.2	371.4	1134.1	1175.9	1044.0	560.5	173.6
82.5°	61.5	61.5	87.9	138.5	255.0	202.2	298.9	318.7	281.3	156.0	57.1
85°	35.2	37.4	54.9	94.5	120.9	98.9	112.1	118.7	120.9	103.3	24.2
87.5°	28.6	30.8	48.4	79.1	65.9	48.4	48.4	50.6	52.7	61.5	11.0
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°	1066.0	1066.0	1066.0	1066.0	1066.0	1066.0	1066.0	1066.0	1066.0	1066.0	1066.0
2.5°	1061.6	1061.6	1063.8	1061.6	1061.6	1061.6	1063.8	1063.8	1063.8	1068.2	1070.4
5°	1066.0	1066.0	1066.0	1063.8	1061.6	1061.6	1066.0	1068.2	1068.2	1074.8	1074.8
7.5°	1076.9	1076.9	1072.6	1068.2	1063.8	1057.2	1059.4	1061.6	1059.4	1061.6	1061.6
10°	1101.1	1101.1	1094.5	1085.7	1072.6	1052.8	1026.4	993.4	962.7	951.7	947.3
12.5°	1140.7	1138.5	1125.3	1109.9	1081.3	1013.2	914.3	797.8	701.1	674.7	665.9
15°	1184.6	1180.2	1164.9	1138.5	1061.6	881.3	674.7	525.3	433.0	411.0	406.6
17.5°	1230.8	1224.2	1202.2	1149.5	971.5	655.0	435.2	329.7	279.1	274.7	276.9
20°	1279.2	1270.4	1239.6	1127.5	784.6	437.4	281.3	255.0	250.6	250.6	252.8
22.5°	1334.1	1323.1	1281.3	1048.4	571.4	290.1	241.8	239.6	237.4	235.2	235.2
25°	1397.8	1384.6	1320.9	905.5	393.4	237.4	230.8	224.2	219.8	215.4	213.2
27.5°	1474.8	1457.2	1351.7	729.7	270.3	222.0	217.6	206.6	197.8	189.0	189.0
30°	1551.7	1529.7	1342.9	549.5	219.8	206.6	197.8	184.6	171.4	162.6	160.4
32.5°	1633.0	1611.0	1285.7	369.2	200.0	189.0	178.0	158.2	142.9	131.9	129.7
35°	1753.9	1736.3	1173.7	244.0	180.2	167.0	151.7	131.9	112.1	101.1	98.9
37.5°	1934.1	1912.1	1035.2	186.8	158.2	138.5	125.3	103.3	83.5	72.5	70.3
40°	2175.9	2109.9	870.4	164.8	138.5	114.3	96.7	74.7	59.3	52.7	52.7
42.5°	2457.2	2301.2	692.3	149.5	123.1	94.5	70.3	50.6	41.8	39.6	39.6
45°	2756.1	2479.2	514.3	138.5	107.7	74.7	50.6	35.2	30.8	28.6	28.6
47.5°	3063.8	2624.2	358.3	125.3	90.1	57.1	35.2	26.4	22.0	19.8	19.8
50°	3351.7	2718.7	252.8	112.1	76.9	41.8	26.4	19.8	15.4	15.4	15.4
52.5°	3551.7	2710.0	182.4	96.7	59.3	28.6	17.6	13.2	13.2	13.2	13.2
55°	3727.6	2677.0	142.9	83.5	46.2	19.8	13.2	11.0	11.0	8.8	8.8
57.5°	3877.0	2624.2	120.9	68.1	33.0	15.4	8.8	8.8	6.6	6.6	6.6
60°	4004.5	2558.3	101.1	57.1	22.0	11.0	6.6	4.4	4.4	2.2	4.4
62.5°	4178.1	2516.5	87.9	44.0	15.4	6.6	4.4	2.2	2.2	0.0	0.0
65°	4305.6	2437.4	74.7	30.8	8.8	4.4	2.2	2.2	0.0	0.0	0.0
67.5°	4310.0	2294.6	54.9	17.6	6.6	4.4	2.2	0.0	0.0	0.0	0.0
70°	3962.7	1956.1	35.2	8.8	4.4	2.2	2.2	0.0	0.0	0.0	0.0
71°	3644.0	1731.9	28.6	6.6	4.4	2.2	0.0	0.0	0.0	0.0	0.0
72.5°	3002.3	1272.6	22.0	6.6	2.2	2.2	0.0	0.0	0.0	0.0	0.0
75°	1655.0	461.5	11.0	4.4	2.2	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	529.7	140.7	6.6	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	90.1	22.0	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	30.8	8.8	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	8.8	4.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.4	2.2	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)