

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: P265845

Luminaire Tested: **ARCH-M-AF48-140-D-U-T2U-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265845
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1802-616-3)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-140-D-U-T2U-7027-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 2700K, 905mA LIGHT ENGINES WITH 24 LEDS AND TYPE II U OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10277.1 lumens
Efficiency: N/A
Efficacy: 72.9 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 141
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

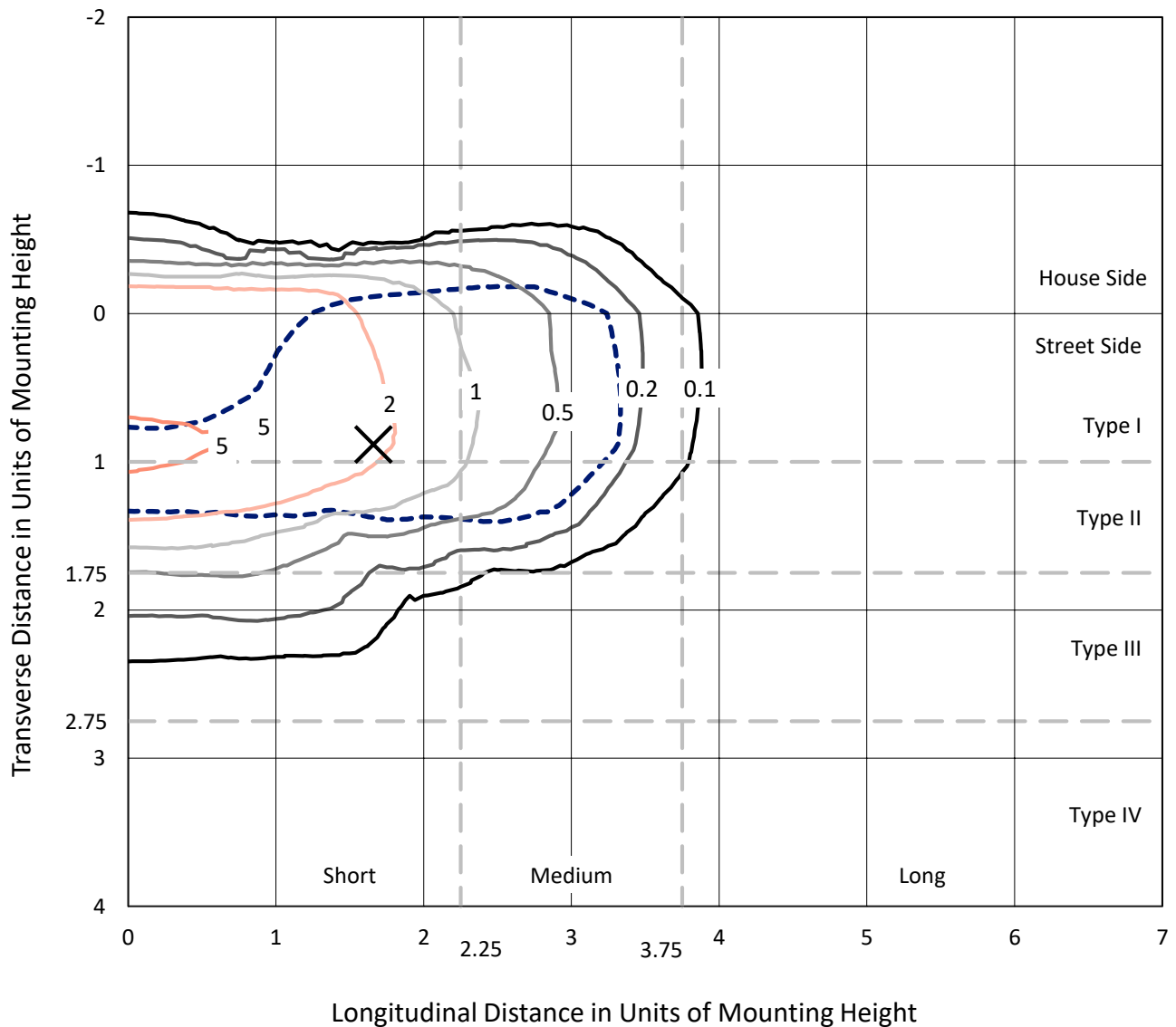


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

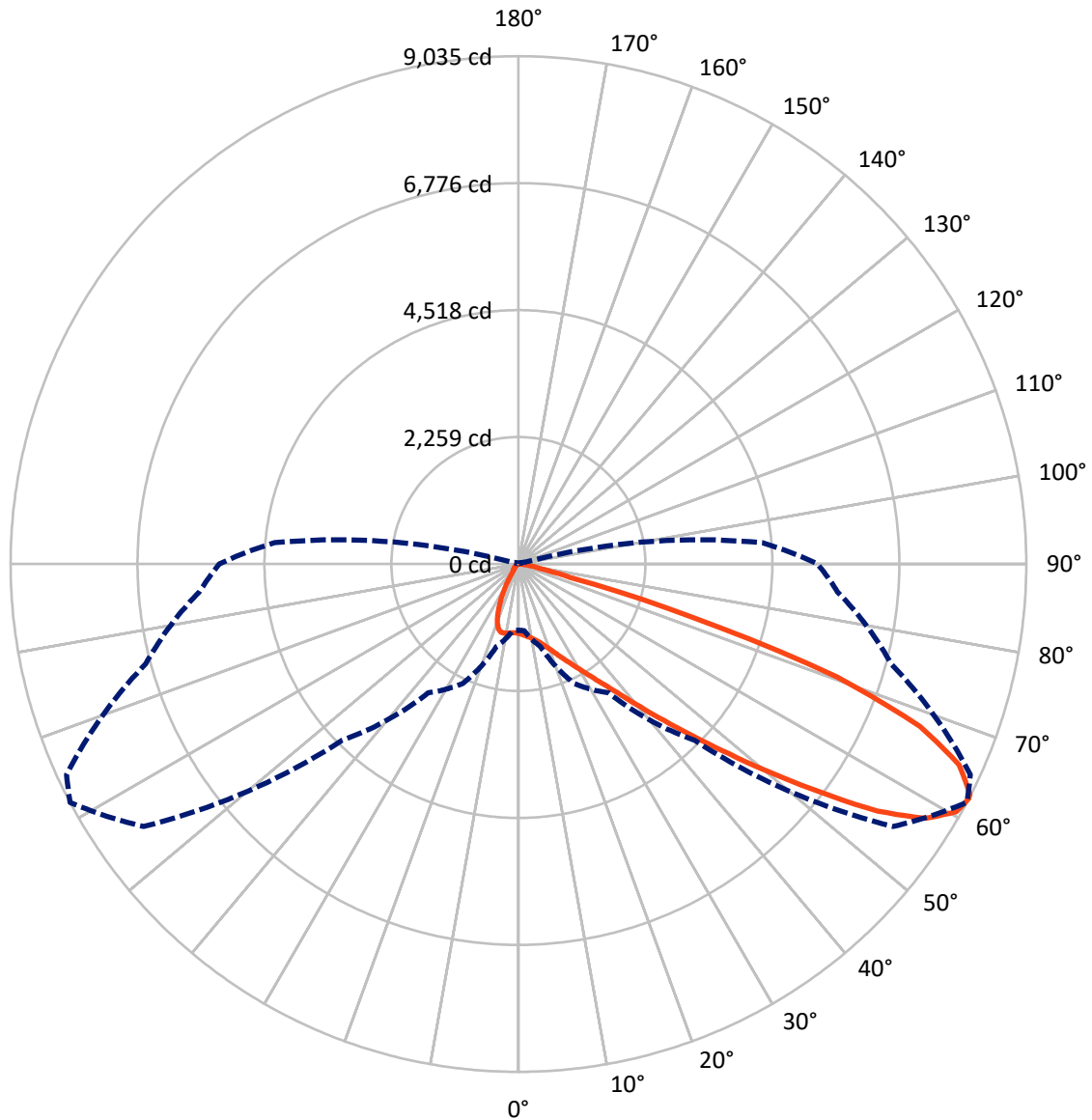


Based on 20 foot mounting height. Maximum calculated value = 5.9 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 62-Deg Lateral - - - Horizontal Cone Through 62-Deg Vertical

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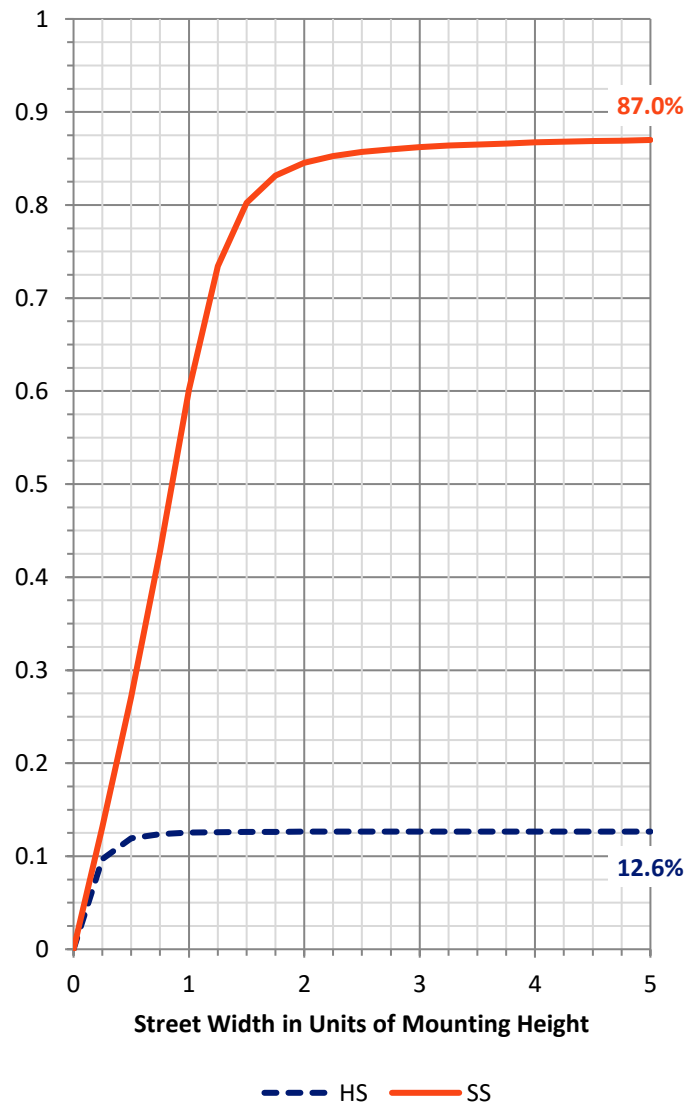
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1314.0	0.0	1314.0
	% Fixture	12.8	0.0	12.8
Street Side	Lumens	8963.0	0.0	8963.0
	% Fixture	87.2	0.0	87.2
Total	Lumens	10277.1	0.0	10277.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.1	1.2
10°-20°	332.7	3.2
20°-30°	558.8	5.4
30°-40°	1071.1	10.4
40°-50°	2187.7	21.3
50°-60°	2895.1	28.2
60°-70°	2249.0	21.9
70°-80°	811.8	7.9
80°-90°	51.7	0.5
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°	10277.1	100.0
0°-180°	10277.1	100.0



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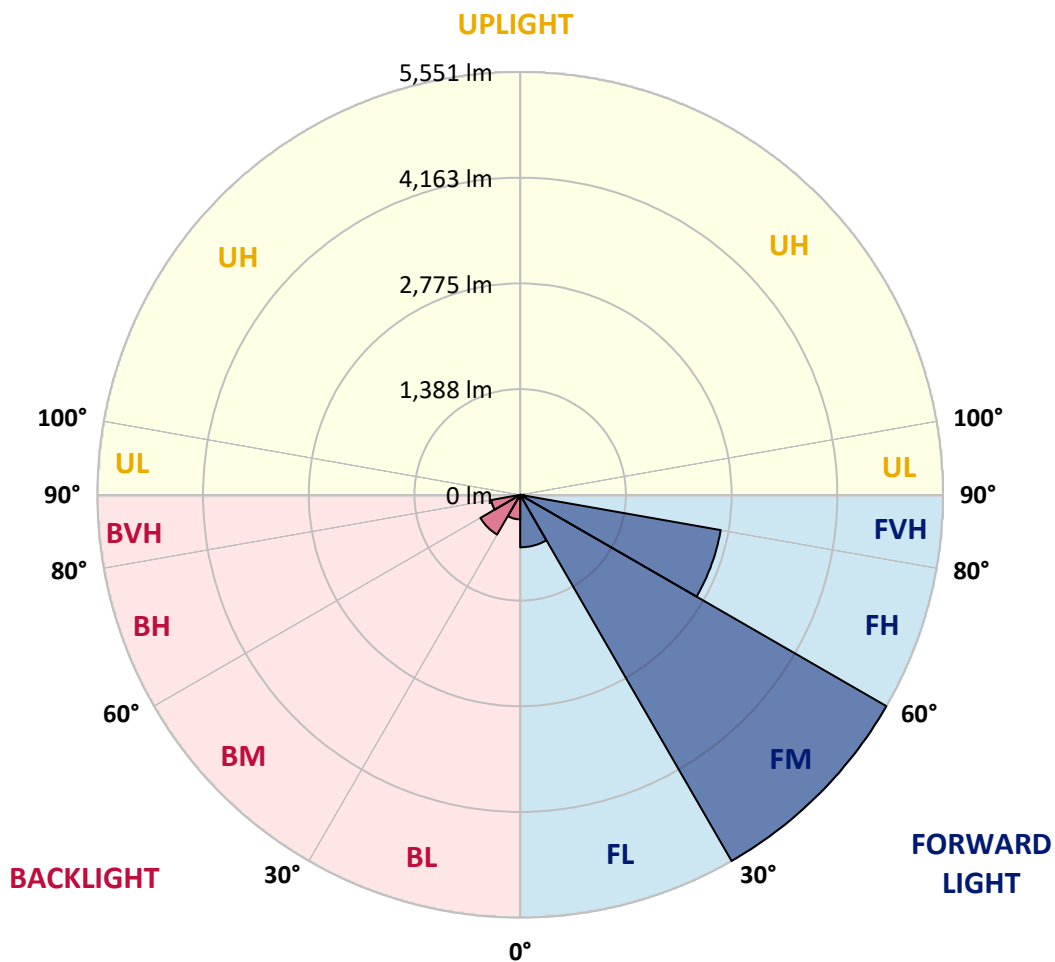
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	689.0	6.7			
FM	(30°-60°)	5550.7	54.0			
FH	(60°-80°)	2673.9	26.0			G2/5000
FVH	(80°-90°)	49.5	0.5			G1/100
BL	(0°-30°)	321.6	3.1	B1/500		
BM	(30°-60°)	603.3	5.9	B1/1000		
BH	(60°-80°)	386.9	3.8	B1/500		G1/500
BVH	(80°-90°)	2.2	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 II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	62°	65°	75°	85°
0°	1238.0	1238.0	1238.0	1238.0	1238.0	1238.0	1238.0	1238.0	1238.0	1238.0	1238.0
2.5°	1270.8	1268.3	1265.8	1263.2	1263.2	1260.7	1258.3	1253.1	1248.1	1243.1	1240.5
5°	1293.6	1291.0	1288.6	1291.0	1288.6	1288.6	1286.1	1281.0	1276.0	1268.3	1260.7
7.5°	1311.3	1308.7	1306.2	1308.7	1311.3	1313.9	1316.3	1311.3	1308.7	1298.6	1291.0
10°	1334.1	1331.5	1329.0	1334.1	1334.1	1346.6	1349.2	1346.6	1344.1	1336.6	1323.9
12.5°	1367.0	1369.3	1369.3	1374.4	1379.4	1394.7	1399.6	1392.2	1392.2	1382.0	1367.0
15°	1427.4	1427.4	1427.4	1432.5	1435.1	1455.3	1460.4	1452.7	1457.8	1440.2	1425.0
17.5°	1485.5	1488.1	1493.3	1503.4	1503.4	1521.0	1531.2	1531.2	1541.2	1518.5	1498.3
20°	1543.6	1546.3	1553.8	1576.5	1576.5	1599.3	1616.9	1624.6	1634.6	1612.0	1576.5
22.5°	1606.9	1606.9	1619.6	1654.9	1647.3	1692.8	1725.6	1738.3	1748.5	1718.1	1662.5
25°	1702.8	1692.8	1702.8	1735.7	1730.7	1793.8	1854.6	1867.0	1879.8	1844.4	1760.9
27.5°	1884.9	1869.6	1834.2	1836.9	1836.9	1910.1	1995.9	2013.7	2021.2	1991.0	1887.2
30°	2248.6	2248.6	2117.2	2028.8	1970.7	2036.4	2157.6	2188.0	2198.2	2152.6	2016.2
32.5°	2882.8	2882.8	2640.3	2415.5	2195.5	2195.5	2334.5	2390.1	2400.2	2347.2	2188.0
35°	3691.2	3686.3	3322.4	3014.2	2584.7	2423.0	2541.8	2635.2	2665.5	2594.8	2410.3
37.5°	4550.4	4517.4	4125.8	3772.2	3183.5	2786.8	2822.1	2945.9	2973.7	2915.7	2698.4
40°	5247.7	5209.7	4894.0	4598.3	3956.6	3367.8	3226.4	3340.1	3373.0	3292.1	3042.0
42.5°	5879.2	5785.9	5568.6	5356.2	4845.9	4373.5	3764.5	3810.0	3845.5	3759.4	3428.6
45°	6336.6	6192.6	6081.4	6015.7	5745.4	5477.5	4461.9	4371.0	4383.5	4277.5	3850.4
47.5°	6349.2	6248.2	6258.2	6430.1	6541.3	6531.1	5368.9	5045.5	4997.5	4820.7	4300.1
50°	5742.9	5801.0	5985.3	6475.5	7076.8	7440.8	6447.8	5844.0	5699.8	5381.6	4747.5
52.5°	4732.2	4823.2	5169.3	5995.5	7155.2	8039.6	7567.1	6756.1	6498.2	5937.3	5091.1
55°	3706.4	3711.4	4075.3	4916.7	6632.1	8148.2	8461.5	7759.0	7364.9	6359.3	5318.3
57.5°	2549.3	2688.3	3150.6	3716.6	5452.4	7607.4	8797.5	8537.2	8029.4	6619.6	5477.5
60°	1670.0	1677.7	2215.8	2870.2	3711.4	6190.0	8592.7	8949.0	8567.6	6773.7	5586.2
62°	1177.4	1190.1	1523.5	2344.7	2797.0	4436.5	8140.5	9035.0	8870.8	6864.7	5699.8
62.5°	1091.5	1101.6	1382.0	2213.2	2627.6	3979.3	7978.8	9014.8	8916.1	6894.9	5740.3
65°	800.8	800.8	904.6	1521.0	1925.2	2150.2	6761.1	8612.9	8855.5	7137.6	5892.0
67.5°	619.0	624.1	659.4	937.3	1452.7	1303.7	4315.4	7708.4	8224.0	7496.3	5977.9
70°	533.1	530.5	555.8	621.5	1048.5	866.7	1899.9	6015.7	6887.3	7405.3	5899.4
72.5°	394.1	396.7	454.8	545.7	730.1	563.4	859.0	3193.6	4466.9	5796.0	5055.7
75°	252.7	255.2	320.9	429.5	525.5	368.8	495.1	952.6	1829.2	3213.7	3092.4
77.5°	169.3	174.4	209.8	300.7	459.8	230.0	310.8	399.1	550.8	1205.2	1109.1
80°	113.6	113.6	133.8	202.1	290.5	192.0	166.7	265.3	285.5	374.0	186.9
82.5°	75.7	75.7	88.5	133.8	189.5	171.8	101.1	144.0	166.7	186.9	65.7
85°	45.5	45.5	60.6	83.4	123.7	95.9	65.7	80.8	85.9	118.8	35.4
87.5°	27.8	25.2	40.5	58.1	65.7	58.1	42.9	42.9	45.5	65.7	17.6
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°	1238.0	1238.0	1238.0	1238.0	1238.0	1238.0	1238.0	1238.0	1238.0	1238.0	1238.0
2.5°	1235.4	1233.0	1230.4	1225.4	1217.8	1212.7	1207.7	1202.7	1197.6	1197.6	1205.2
5°	1258.3	1250.6	1240.5	1230.4	1215.2	1205.2	1197.6	1187.5	1182.3	1182.3	1185.0
7.5°	1286.1	1278.5	1260.7	1243.1	1220.3	1202.7	1185.0	1162.1	1144.5	1137.0	1144.5
10°	1316.3	1306.2	1281.0	1253.1	1228.0	1182.3	1124.3	1053.6	992.9	965.1	977.7
12.5°	1354.3	1341.6	1311.3	1273.3	1215.2	1104.0	960.1	795.9	692.2	644.3	654.3
15°	1409.8	1392.2	1349.2	1291.0	1162.1	922.2	687.3	497.8	401.7	361.3	366.4
17.5°	1475.5	1452.7	1394.7	1286.1	1025.8	664.4	409.3	290.5	250.1	240.0	240.0
20°	1546.3	1515.9	1440.2	1248.1	818.5	416.9	255.2	222.3	207.1	199.7	199.7
22.5°	1619.6	1579.1	1478.0	1159.7	583.5	260.1	209.8	186.9	169.3	161.8	161.8
25°	1707.9	1654.9	1515.9	1005.6	371.4	209.8	179.4	156.7	139.0	128.8	131.4
27.5°	1811.5	1743.3	1548.8	813.5	240.0	181.8	149.1	126.3	111.2	106.1	106.1
30°	1920.1	1839.3	1556.4	609.0	194.6	156.7	123.7	103.6	93.5	88.5	88.5
32.5°	2069.2	1963.2	1533.6	404.2	164.2	131.4	103.6	85.9	78.3	75.7	75.7
35°	2266.3	2124.9	1480.5	250.1	139.0	108.7	85.9	75.7	68.2	65.7	65.7
37.5°	2516.4	2349.6	1387.1	171.8	118.8	88.5	73.3	65.7	60.6	58.1	58.1
40°	2850.0	2622.5	1265.8	149.1	101.1	75.7	63.2	58.1	53.1	53.1	53.1
42.5°	3203.6	2953.5	1109.1	131.4	85.9	65.7	55.5	50.6	48.0	45.5	45.5
45°	3590.3	3292.1	914.7	116.2	73.3	58.1	50.6	42.9	40.5	40.5	40.5
47.5°	3974.3	3640.8	702.4	101.1	63.2	50.6	42.9	37.9	35.4	32.9	32.9
50°	4368.4	3956.6	515.4	88.5	55.5	45.5	37.9	32.9	27.8	25.2	25.2
52.5°	4653.8	4146.0	376.5	75.7	48.0	37.9	30.4	25.2	20.2	17.6	17.6
55°	4863.7	4262.3	275.4	63.2	42.9	32.9	25.2	20.2	15.1	15.1	12.7
57.5°	5027.9	4317.9	207.1	55.5	37.9	27.8	20.2	15.1	12.7	10.2	10.2
60°	5154.1	4320.4	154.1	45.5	32.9	22.7	15.1	10.2	7.5	7.5	7.5
62°	5320.9	4353.2	126.3	37.9	30.4	20.2	12.7	7.5	5.0	2.5	2.5
62.5°	5368.9	4365.9	121.4	37.9	27.8	17.6	10.2	7.5	5.0	2.5	2.5
65°	5591.3	4388.6	93.5	30.4	22.7	15.1	7.5	5.0	0.0	0.0	0.0
67.5°	5793.3	4353.2	68.2	22.7	17.6	10.2	7.5	2.5	0.0	0.0	0.0
70°	5773.1	4110.7	48.0	15.1	12.7	7.5	5.0	0.0	0.0	0.0	0.0
72.5°	4757.6	3077.4	32.9	12.7	7.5	5.0	2.5	0.0	0.0	0.0	0.0
75°	2872.7	1346.6	22.7	7.5	7.5	5.0	2.5	0.0	0.0	0.0	0.0
77.5°	942.4	487.6	15.1	5.0	5.0	2.5	2.5	0.0	0.0	0.0	0.0
80°	154.1	80.8	7.5	5.0	5.0	2.5	2.5	0.0	0.0	0.0	0.0
82.5°	48.0	20.2	5.0	5.0	2.5	2.5	0.0	0.0	0.0	0.0	0.0
85°	17.6	7.5	5.0	5.0	2.5	2.5	0.0	0.0	0.0	0.0	0.0
87.5°	7.5	5.0	5.0	5.0	2.5	2.5	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)