

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: P234826

Luminaire Tested: **ARCH-M-AF48-120-D-U-T3-8027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P234826  
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-AF48-120-D-U-T3-8027-HSS  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 80 CRI, 2700K, 785mA 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: 8928 lumens  
Efficiency: N/A  
Efficacy: 73.2 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): 122  
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

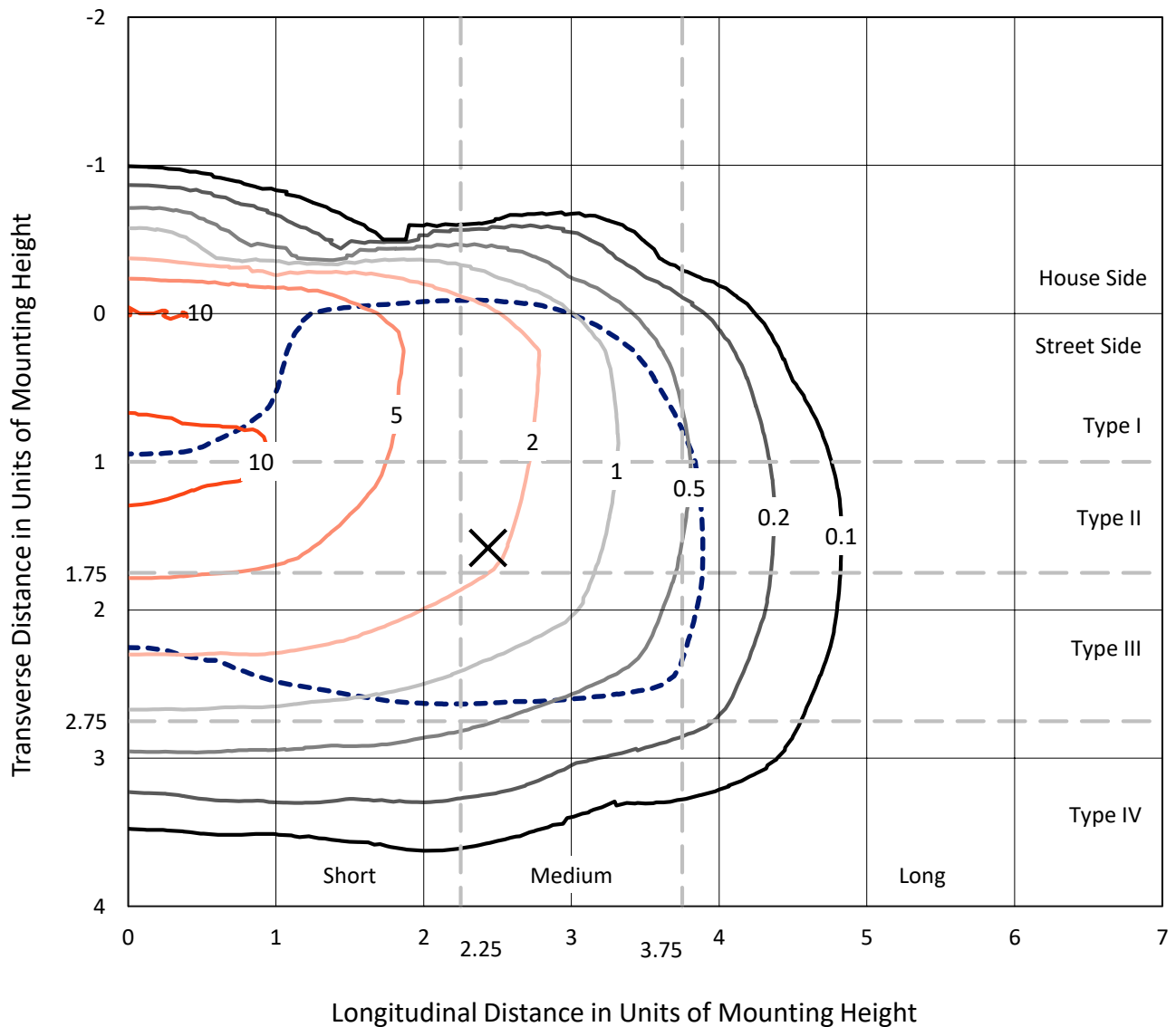


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

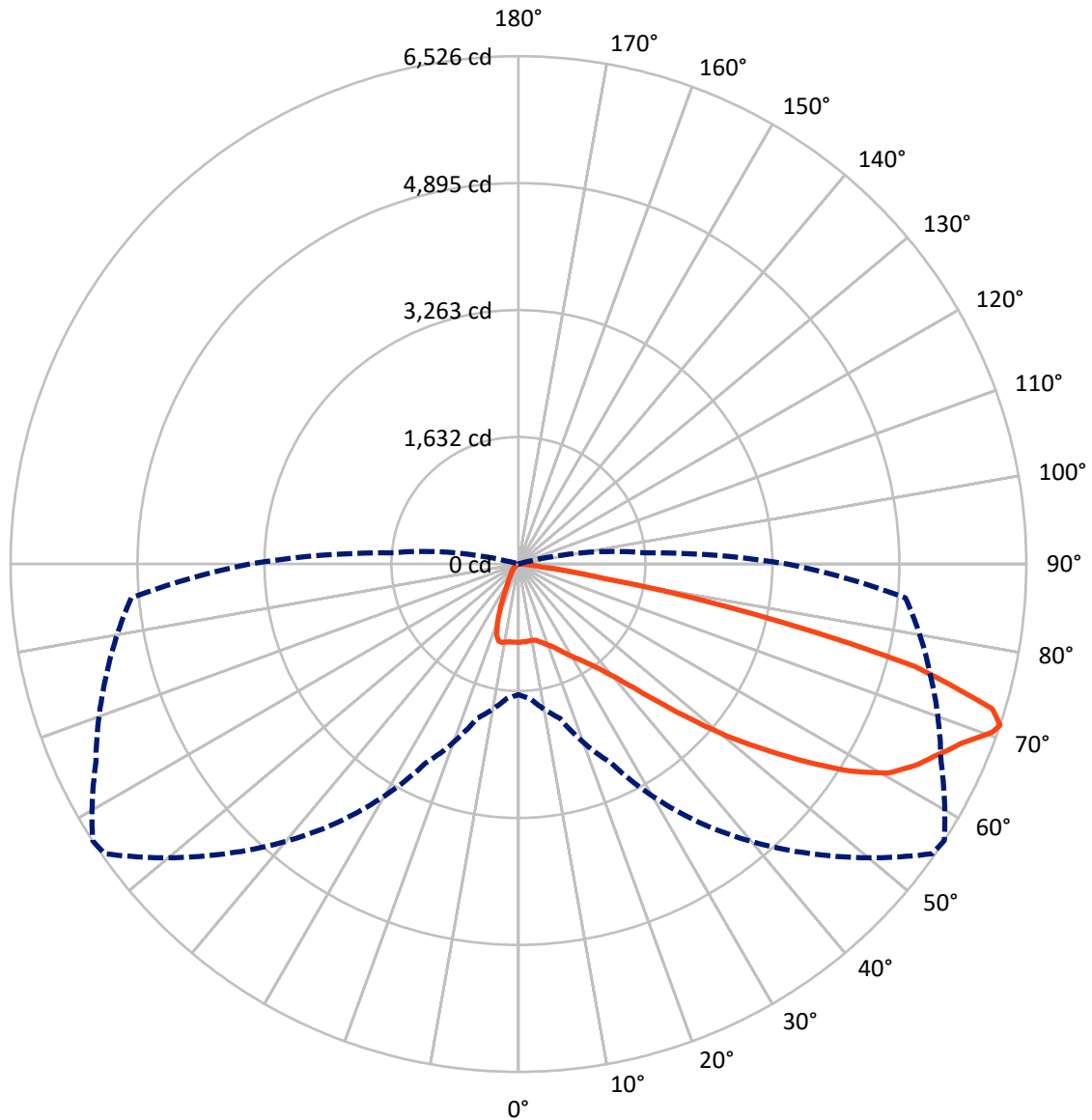


Based on 10 foot mounting height. Maximum calculated value = 12.5 fc  
 Type III - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



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

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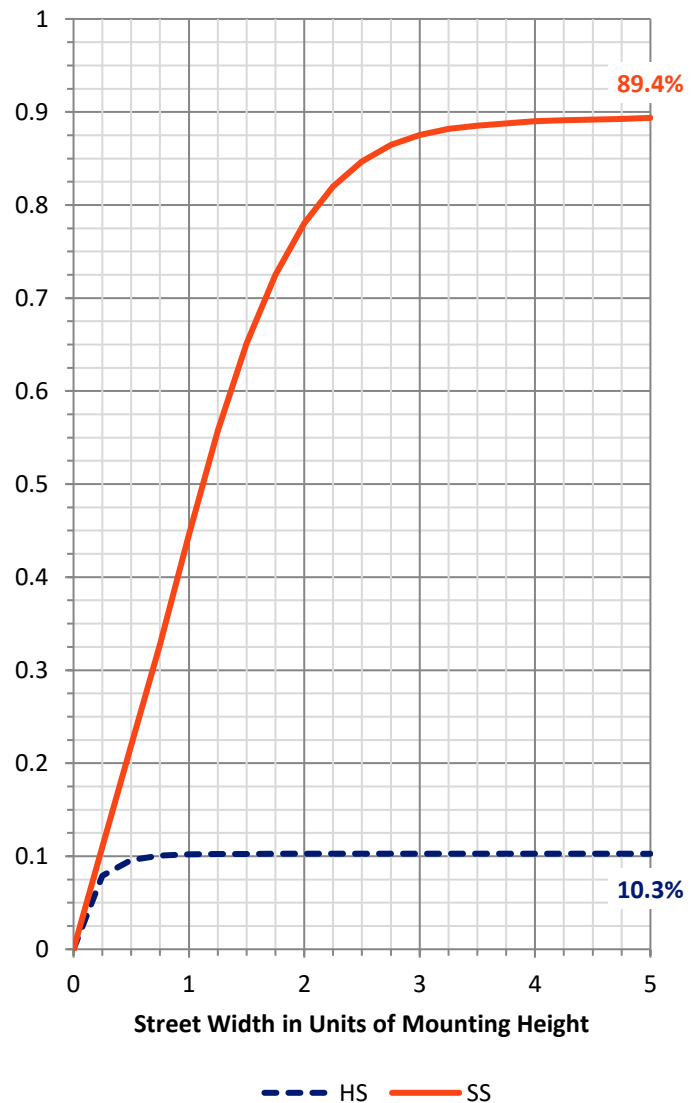
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	925.2	0.0	925.2
	% Fixture	10.4	0.0	10.4
<b>Street Side</b>	Lumens	8002.8	0.0	8002.8
	% Fixture	89.6	0.0	89.6
<b>Total</b>	Lumens	8928.0	0.0	8928.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	94.8	1.1
10°-20°	253.4	2.8
20°-30°	395.2	4.4
30°-40°	668.0	7.5
40°-50°	1297.5	14.5
50°-60°	2178.9	24.4
60°-70°	2600.3	29.1
70°-80°	1370.4	15.3
80°-90°	69.6	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°	8928.0	100.0
0°-180°	8928.0	100.0



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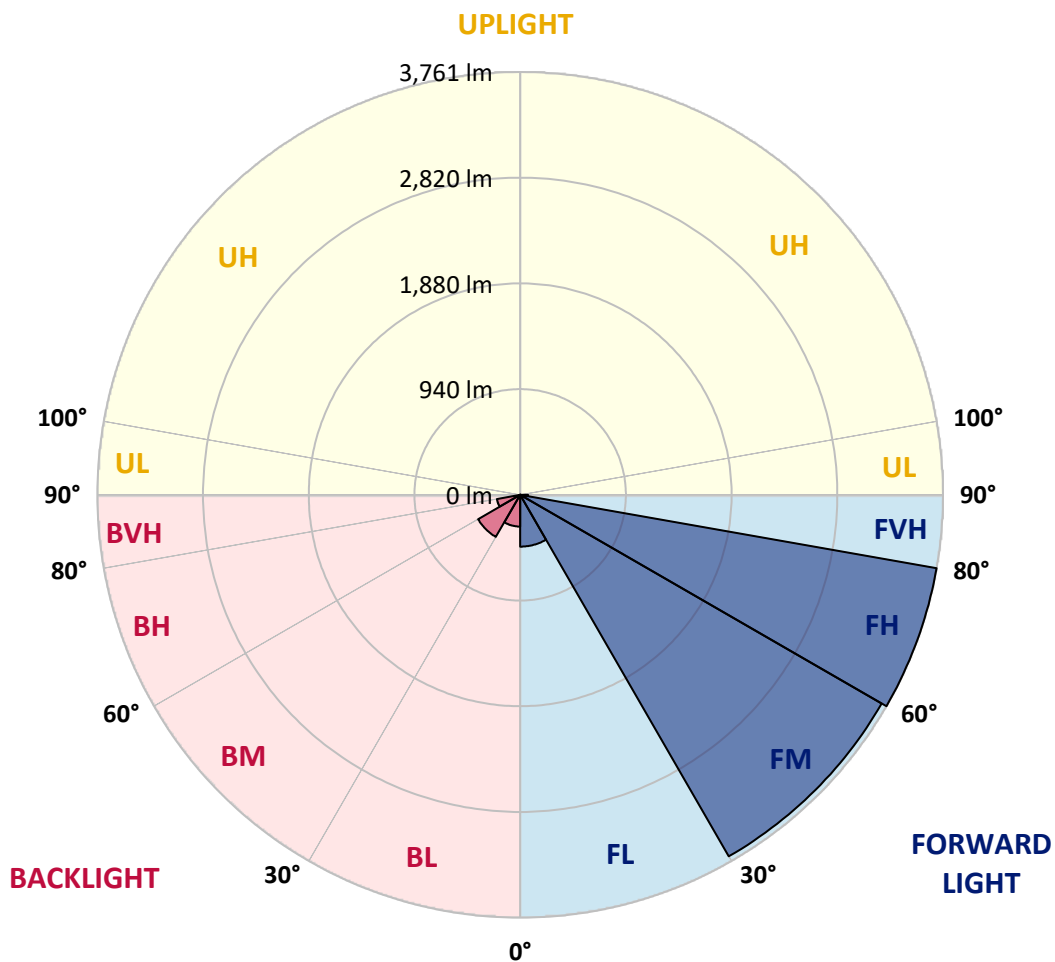
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	460.9	5.2			
FM	(30°-60°)	3712.3	41.6			
FH	(60°-80°)	3760.5	42.1			G2/5000
FVH	(80°-90°)	69.0	0.8			G1/100
BL	(0°-30°)	282.4	3.2	B1/500		
BM	(30°-60°)	432.0	4.8	B1/1000		
BH	(60°-80°)	210.1	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°	1009.0	1009.0	1009.0	1009.0	1009.0	1009.0	1009.0	1009.0	1009.0	1009.0	1009.0
2.5°	994.4	994.4	994.4	996.5	998.6	998.6	1002.8	1000.7	1000.7	1000.7	1004.8
5°	967.4	969.5	971.6	975.7	984.0	990.3	1000.7	1000.7	1002.8	1006.9	1009.0
7.5°	929.9	932.0	938.3	946.6	963.2	977.8	994.4	998.6	1004.8	1015.2	1019.4
10°	907.1	911.2	919.5	929.9	948.7	967.4	988.2	994.4	1013.2	1031.9	1042.3
12.5°	900.8	902.9	911.2	927.9	950.7	973.6	1000.7	1006.9	1034.0	1063.1	1079.7
15°	911.2	913.3	917.5	936.2	963.2	992.4	1027.7	1036.0	1069.3	1102.6	1123.4
17.5°	929.9	929.9	934.1	950.7	979.9	1013.2	1058.9	1071.4	1108.9	1146.3	1169.2
20°	942.4	942.4	948.7	965.3	998.6	1042.3	1096.4	1113.0	1154.6	1196.2	1217.0
22.5°	954.9	957.0	963.2	982.0	1019.4	1079.7	1142.1	1158.8	1206.6	1250.3	1271.1
25°	990.3	988.2	990.3	1006.9	1050.6	1125.5	1204.6	1225.4	1275.3	1323.1	1333.5
27.5°	1088.1	1083.9	1056.8	1046.4	1079.7	1173.4	1283.6	1304.4	1362.7	1410.5	1410.5
30°	1312.7	1304.4	1237.8	1152.5	1125.5	1217.0	1358.5	1387.6	1462.5	1504.1	1491.7
32.5°	1597.8	1579.0	1493.7	1348.1	1239.9	1275.3	1437.6	1470.9	1566.5	1601.9	1574.9
35°	1909.8	1907.7	1801.6	1614.4	1460.4	1396.0	1539.5	1579.0	1699.7	1730.9	1687.2
37.5°	2240.6	2248.9	2178.2	1920.2	1739.2	1593.6	1674.7	1720.5	1868.2	1905.7	1864.0
40°	2608.8	2606.8	2579.7	2273.9	2074.2	1874.5	1870.3	1911.9	2090.8	2149.1	2090.8
42.5°	3074.8	3070.7	2972.9	2698.3	2479.8	2240.6	2155.3	2169.9	2369.6	2465.3	2380.0
45°	3549.2	3520.1	3407.7	3170.5	2977.1	2694.1	2531.9	2531.9	2702.5	2833.5	2700.4
47.5°	3813.4	3784.3	3738.5	3607.4	3549.2	3233.0	2993.7	2964.6	3097.7	3230.9	3043.6
50°	4160.8	4160.8	4046.4	3996.5	4096.3	3873.7	3503.4	3474.3	3538.8	3644.9	3399.4
52.5°	4435.4	4385.5	4304.4	4348.1	4633.1	4531.1	4013.1	3956.9	4006.9	4033.9	3709.4
55°	4549.9	4502.0	4495.8	4656.0	5097.0	4955.5	4535.3	4485.4	4481.2	4348.1	3979.8
57.5°	4572.7	4531.1	4610.2	4891.0	5548.5	5303.0	5055.4	5018.0	4901.4	4568.6	4256.5
60°	4379.3	4400.1	4591.5	5020.0	5814.7	5604.6	5494.4	5454.8	5186.5	4755.8	4564.4
62.5°	3981.9	4031.8	4389.7	5032.5	5717.0	5727.4	5737.8	5710.7	5407.0	4926.4	4874.4
65°	3511.7	3526.3	3956.9	4859.8	5546.4	5689.9	5916.7	5914.6	5575.5	5117.8	5223.9
67.5°	2893.9	2918.8	3291.2	4277.3	5205.2	5673.3	6151.8	6145.5	5766.9	5336.3	5432.0
70°	2153.2	2184.4	2486.1	3326.6	4443.8	5465.2	6459.7	6463.8	5968.7	5502.7	5288.4
71°	1678.9	1735.1	2051.3	2825.2	4054.7	5255.1	6488.8	6526.2	5991.6	5479.8	4993.0
72.5°	823.8	890.4	1287.8	1988.9	3337.0	4784.9	6297.4	6370.2	5848.0	5194.8	4269.0
75°	214.3	226.8	384.9	813.4	1789.2	3170.5	5078.3	5263.4	4780.8	3954.9	2608.8
77.5°	135.2	139.4	181.0	316.2	669.9	1204.6	2983.3	3074.8	2731.6	2003.4	919.5
80°	95.7	97.8	114.4	203.9	391.1	351.6	1073.5	1113.0	988.2	530.5	164.4
82.5°	58.3	58.3	83.2	131.1	241.3	191.4	282.9	301.7	266.3	147.7	54.1
85°	33.3	35.4	52.0	89.5	114.4	93.6	106.1	112.3	114.4	97.8	22.9
87.5°	27.0	29.1	45.8	74.9	62.4	45.8	45.8	47.8	49.9	58.3	10.4
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°	1009.0	1009.0	1009.0	1009.0	1009.0	1009.0	1009.0	1009.0	1009.0	1009.0	1009.0
2.5°	1004.8	1004.8	1006.9	1004.8	1004.8	1004.8	1006.9	1006.9	1006.9	1011.1	1013.2
5°	1009.0	1009.0	1009.0	1006.9	1004.8	1004.8	1009.0	1011.1	1011.1	1017.3	1017.3
7.5°	1019.4	1019.4	1015.2	1011.1	1006.9	1000.7	1002.8	1004.8	1002.8	1004.8	1004.8
10°	1042.3	1042.3	1036.0	1027.7	1015.2	996.5	971.6	940.3	911.2	900.8	896.7
12.5°	1079.7	1077.7	1065.2	1050.6	1023.6	959.1	865.5	755.2	663.7	638.7	630.4
15°	1121.3	1117.2	1102.6	1077.7	1004.8	834.2	638.7	497.2	409.8	389.0	384.9
17.5°	1165.0	1158.8	1138.0	1088.1	919.5	620.0	411.9	312.1	264.2	260.1	262.1
20°	1210.8	1202.5	1173.4	1067.3	742.7	414.0	266.3	241.3	237.2	237.2	239.2
22.5°	1262.8	1252.4	1212.9	992.4	540.9	274.6	228.8	226.8	224.7	222.6	222.6
25°	1323.1	1310.7	1250.3	857.1	372.4	224.7	218.4	212.2	208.0	203.9	201.8
27.5°	1396.0	1379.3	1279.5	690.7	255.9	210.1	206.0	195.6	187.2	178.9	178.9
30°	1468.8	1448.0	1271.1	520.1	208.0	195.6	187.2	174.8	162.3	154.0	151.9
32.5°	1545.7	1524.9	1217.0	349.5	189.3	178.9	168.5	149.8	135.2	124.8	122.7
35°	1660.2	1643.5	1110.9	230.9	170.6	158.1	143.5	124.8	106.1	95.7	93.6
37.5°	1830.8	1810.0	979.9	176.8	149.8	131.1	118.6	97.8	79.1	68.7	66.6
40°	2059.6	1997.2	823.8	156.0	131.1	108.2	91.5	70.7	56.2	49.9	49.9
42.5°	2325.9	2178.2	655.3	141.5	116.5	89.5	66.6	47.8	39.5	37.4	37.4
45°	2608.8	2346.7	486.8	131.1	101.9	70.7	47.8	33.3	29.1	27.0	27.0
47.5°	2900.1	2484.0	339.1	118.6	85.3	54.1	33.3	25.0	20.8	18.7	18.7
50°	3172.6	2573.5	239.2	106.1	72.8	39.5	25.0	18.7	14.6	14.6	14.6
52.5°	3361.9	2565.1	172.7	91.5	56.2	27.0	16.6	12.5	12.5	12.5	12.5
55°	3528.4	2533.9	135.2	79.1	43.7	18.7	12.5	10.4	10.4	8.3	8.3
57.5°	3669.8	2484.0	114.4	64.5	31.2	14.6	8.3	8.3	6.2	6.2	6.2
60°	3790.5	2421.6	95.7	54.1	20.8	10.4	6.2	4.2	4.2	2.1	4.2
62.5°	3954.9	2382.1	83.2	41.6	14.6	6.2	4.2	2.1	2.1	0.0	0.0
65°	4075.5	2307.2	70.7	29.1	8.3	4.2	2.1	2.1	0.0	0.0	0.0
67.5°	4079.7	2171.9	52.0	16.6	6.2	4.2	2.1	0.0	0.0	0.0	0.0
70°	3751.0	1851.6	33.3	8.3	4.2	2.1	2.1	0.0	0.0	0.0	0.0
71°	3449.3	1639.4	27.0	6.2	4.2	2.1	0.0	0.0	0.0	0.0	0.0
72.5°	2841.8	1204.6	20.8	6.2	2.1	2.1	0.0	0.0	0.0	0.0	0.0
75°	1566.5	436.9	10.4	4.2	2.1	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	501.4	133.1	6.2	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	85.3	20.8	4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	29.1	8.3	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	8.3	4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.2	2.1	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)