

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: P231216

Luminaire Tested: **ARCH-M-AF48-150-D-U-T3-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231216
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-AF48-150-D-U-T3-7030-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 970mA 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: 11865 lumens
Efficiency: N/A
Efficacy: 78.6 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): 151
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

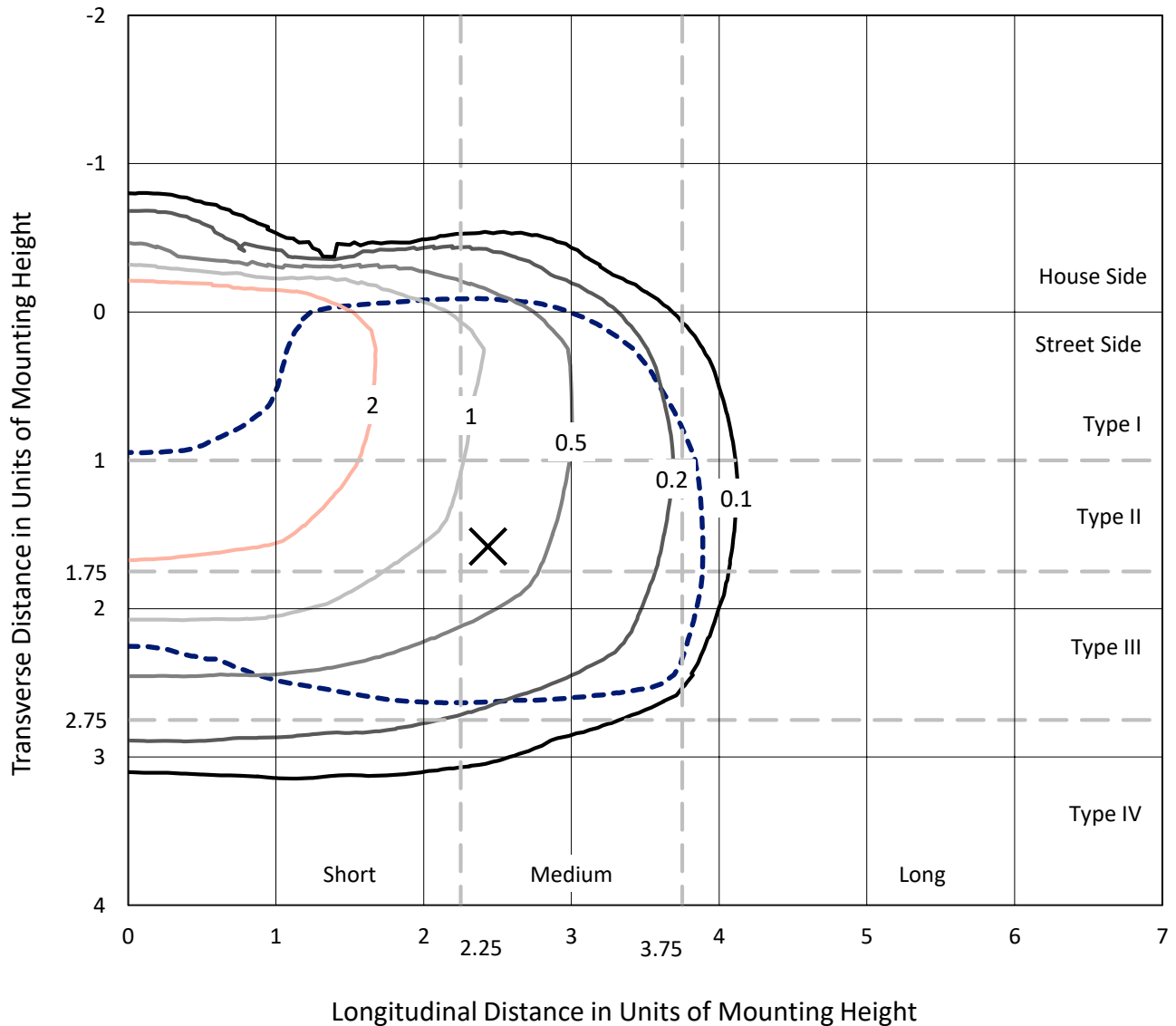


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

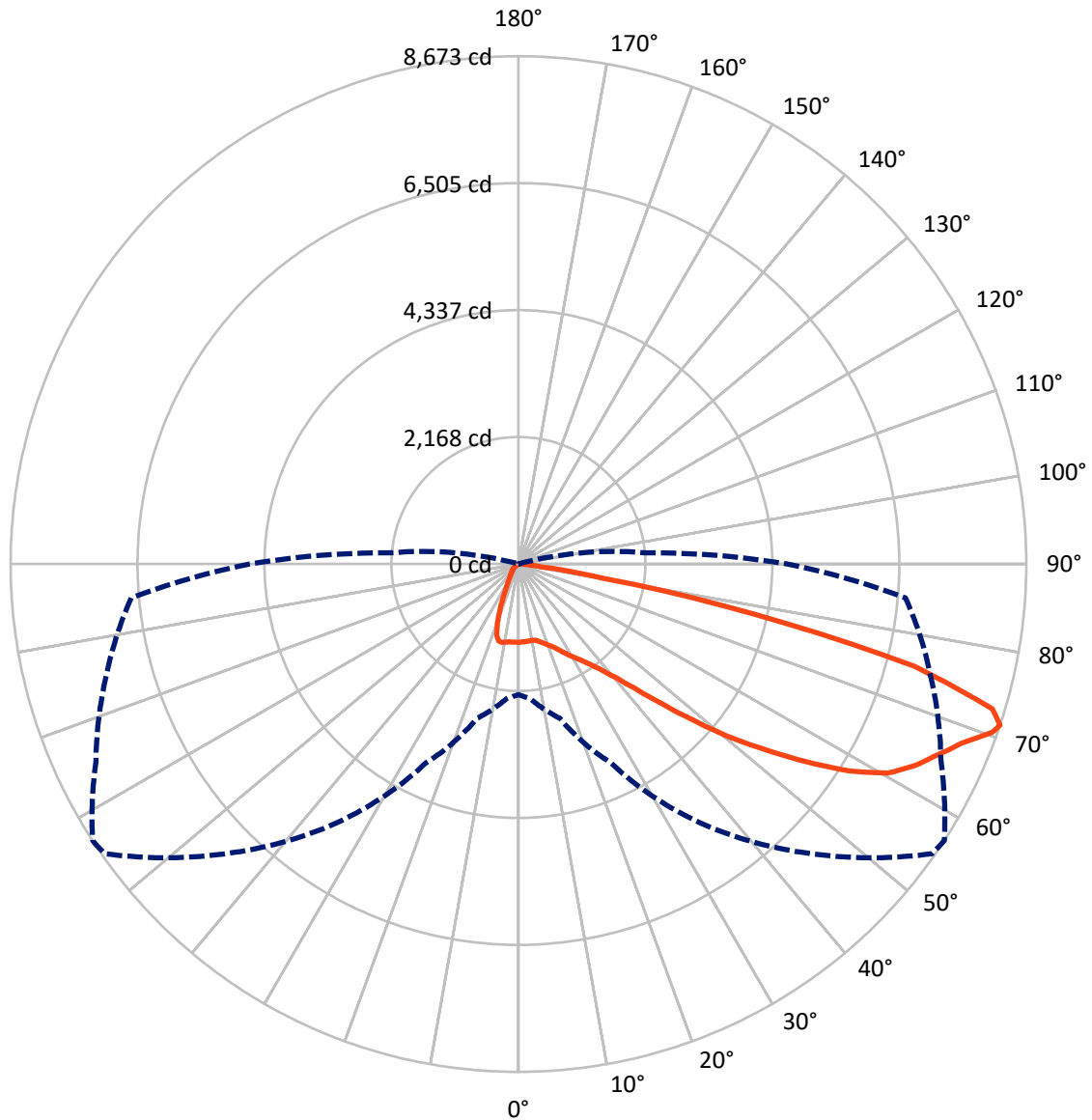


Based on 20 foot mounting height. Maximum calculated value = 4.2 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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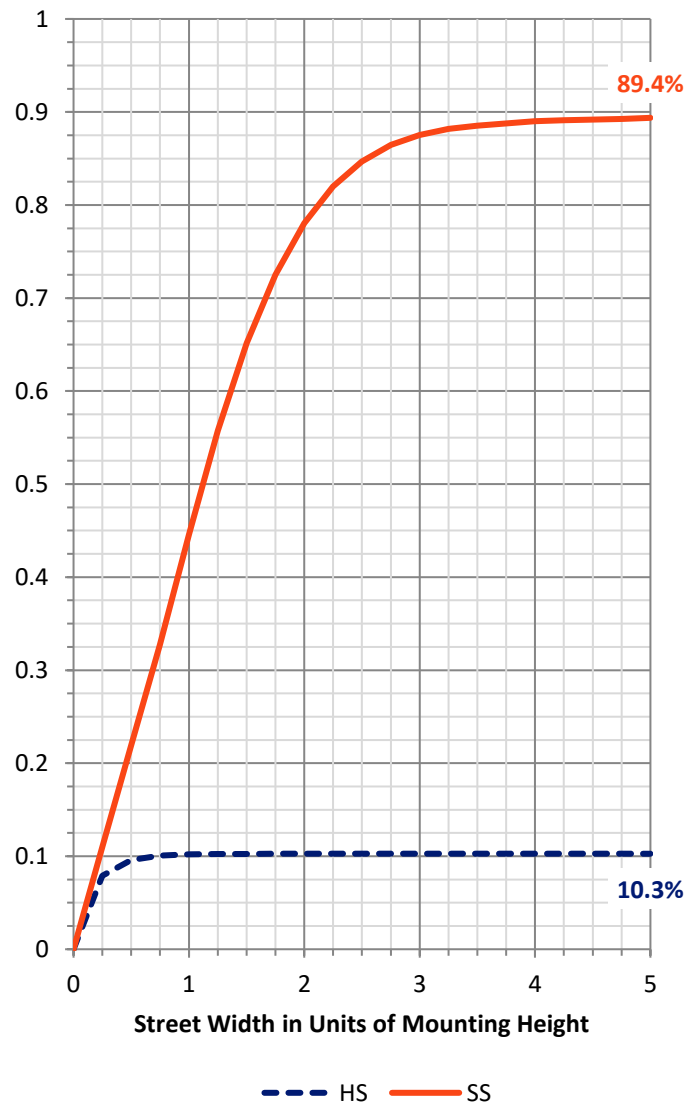
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1229.6	0.0	1229.6
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	10635.4	0.0	10635.4
	% Fixture	89.6	0.0	89.6
Total	Lumens	11865.0	0.0	11865.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.9	1.1
10°-20°	336.7	2.8
20°-30°	525.3	4.4
30°-40°	887.8	7.5
40°-50°	1724.3	14.5
50°-60°	2895.6	24.4
60°-70°	3455.7	29.1
70°-80°	1821.2	15.3
80°-90°	92.5	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°	11865.0	100.0
0°-180°	11865.0	100.0

Coefficient of Utilization



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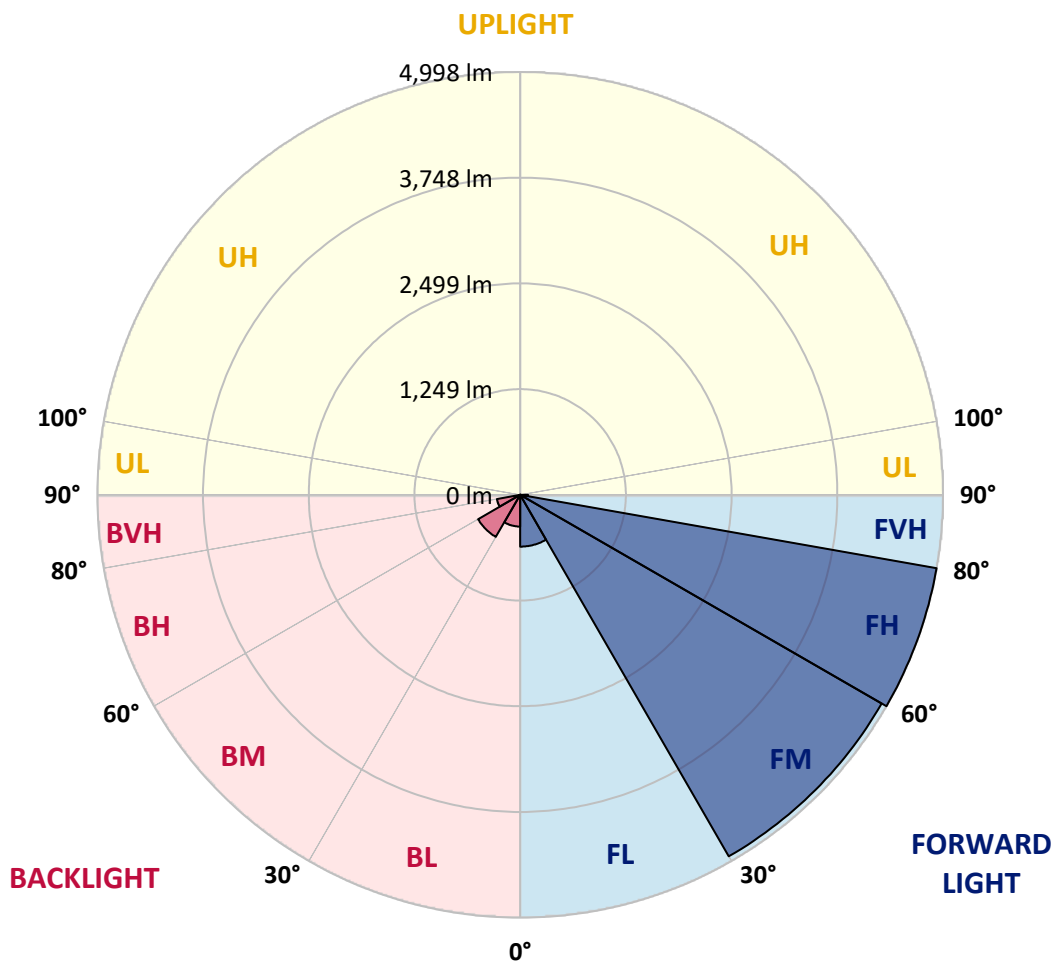
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	612.6	5.2			
FM	(30°-60°)	4933.6	41.6			
FH	(60°-80°)	4997.6	42.1			G2/5000
FVH	(80°-90°)	91.7	0.8			G1/100
BL	(0°-30°)	375.3	3.2	B1/500		
BM	(30°-60°)	574.1	4.8	B1/1000		
BH	(60°-80°)	279.2	2.4	B1/500		G1/500
BVH	(80°-90°)	0.9	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°	1340.9	1340.9	1340.9	1340.9	1340.9	1340.9	1340.9	1340.9	1340.9	1340.9	1340.9
2.5°	1321.6	1321.6	1321.6	1324.3	1327.1	1327.1	1332.6	1329.9	1329.9	1329.9	1335.4
5°	1285.6	1288.4	1291.2	1296.7	1307.7	1316.0	1329.9	1329.9	1332.6	1338.2	1340.9
7.5°	1235.9	1238.6	1246.9	1258.0	1280.1	1299.5	1321.6	1327.1	1335.4	1349.2	1354.7
10°	1205.5	1211.0	1222.0	1235.9	1260.7	1285.6	1313.3	1321.6	1346.5	1371.3	1385.2
12.5°	1197.2	1199.9	1211.0	1233.1	1263.5	1293.9	1329.9	1338.2	1374.1	1412.8	1434.9
15°	1211.0	1213.7	1219.3	1244.2	1280.1	1318.8	1365.8	1376.9	1421.1	1465.3	1493.0
17.5°	1235.9	1235.9	1241.4	1263.5	1302.2	1346.5	1407.3	1423.9	1473.6	1523.4	1553.8
20°	1252.5	1252.5	1260.7	1282.9	1327.1	1385.2	1457.0	1479.2	1534.5	1589.8	1617.4
22.5°	1269.0	1271.8	1280.1	1305.0	1354.7	1434.9	1517.9	1540.0	1603.6	1661.6	1689.3
25°	1316.0	1313.3	1316.0	1338.2	1396.2	1495.8	1600.8	1628.5	1694.8	1758.4	1772.2
27.5°	1446.0	1440.5	1404.5	1390.7	1434.9	1559.3	1705.9	1733.5	1810.9	1874.5	1874.5
30°	1744.6	1733.5	1645.1	1531.7	1495.8	1617.4	1805.4	1844.1	1943.6	1998.9	1982.4
32.5°	2123.4	2098.5	1985.1	1791.6	1647.8	1694.8	1910.5	1954.7	2081.9	2128.9	2092.9
35°	2538.1	2535.3	2394.3	2145.5	1940.9	1855.2	2045.9	2098.5	2258.8	2300.3	2242.2
37.5°	2977.7	2988.7	2894.7	2551.9	2311.4	2117.8	2225.7	2286.5	2482.8	2532.6	2477.3
40°	3467.1	3464.3	3428.3	3021.9	2756.5	2491.1	2485.5	2540.8	2778.6	2856.0	2778.6
42.5°	4086.4	4080.8	3950.9	3585.9	3295.6	2977.7	2864.3	2883.7	3149.1	3276.3	3162.9
45°	4716.7	4678.0	4528.7	4213.5	3956.4	3580.4	3364.8	3364.8	3591.5	3765.6	3588.7
47.5°	5067.9	5029.2	4968.3	4794.2	4716.7	4296.5	3978.5	3939.8	4116.8	4293.7	4044.9
50°	5529.6	5529.6	5377.5	5311.2	5443.9	5148.0	4655.9	4617.2	4702.9	4843.9	4517.7
52.5°	5894.5	5828.2	5720.4	5778.4	6157.2	6021.7	5333.3	5258.6	5325.0	5360.9	4929.6
55°	6046.6	5983.0	5974.7	6187.6	6773.7	6585.7	6027.3	5960.9	5955.4	5778.4	5289.1
57.5°	6077.0	6021.7	6126.8	6500.0	7373.7	7047.5	6718.4	6668.7	6513.9	6071.5	5656.8
60°	5819.9	5847.5	6101.9	6671.4	7727.6	7448.4	7301.8	7249.3	6892.6	6320.3	6066.0
62.5°	5291.8	5358.2	5833.7	6688.0	7597.7	7611.5	7625.3	7589.4	7185.7	6547.0	6477.9
65°	4667.0	4686.3	5258.6	6458.6	7370.9	7561.7	7863.1	7860.3	7409.6	6801.4	6942.4
67.5°	3845.8	3879.0	4373.9	5684.4	6917.5	7539.6	8175.5	8167.2	7664.0	7091.7	7218.9
70°	2861.6	2903.0	3303.9	4420.9	5905.6	7263.1	8584.7	8590.2	7932.2	7312.9	7028.1
71°	2231.2	2305.8	2726.1	3754.6	5388.6	6983.9	8623.4	8673.2	7962.6	7282.5	6635.5
72.5°	1094.9	1183.3	1711.4	2643.1	4434.7	6359.0	8369.0	8465.8	7771.8	6903.7	5673.4
75°	284.8	301.4	511.5	1081.0	2377.7	4213.5	6748.9	6994.9	6353.5	5255.9	3467.1
77.5°	179.7	185.2	240.5	420.2	890.3	1600.8	3964.7	4086.4	3630.2	2662.5	1222.0
80°	127.2	129.9	152.1	270.9	519.8	467.3	1426.6	1479.2	1313.3	705.0	218.4
82.5°	77.4	77.4	110.6	174.2	320.7	254.4	376.0	400.9	353.9	196.3	71.9
85°	44.2	47.0	69.1	118.9	152.1	124.4	141.0	149.3	152.1	129.9	30.4
87.5°	35.9	38.7	60.8	99.5	82.9	60.8	60.8	63.6	66.4	77.4	13.8
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°	1340.9	1340.9	1340.9	1340.9	1340.9	1340.9	1340.9	1340.9	1340.9	1340.9	1340.9
2.5°	1335.4	1335.4	1338.2	1335.4	1335.4	1335.4	1338.2	1338.2	1338.2	1343.7	1346.5
5°	1340.9	1340.9	1340.9	1338.2	1335.4	1335.4	1340.9	1343.7	1343.7	1352.0	1352.0
7.5°	1354.7	1354.7	1349.2	1343.7	1338.2	1329.9	1332.6	1335.4	1332.6	1335.4	1335.4
10°	1385.2	1385.2	1376.9	1365.8	1349.2	1324.3	1291.2	1249.7	1211.0	1197.2	1191.6
12.5°	1434.9	1432.2	1415.6	1396.2	1360.3	1274.6	1150.2	1003.6	882.0	848.8	837.7
15°	1490.2	1484.7	1465.3	1432.2	1335.4	1108.7	848.8	660.8	544.7	517.0	511.5
17.5°	1548.3	1540.0	1512.3	1446.0	1222.0	823.9	547.4	414.7	351.1	345.6	348.4
20°	1609.1	1598.1	1559.3	1418.3	987.0	550.2	353.9	320.7	315.2	315.2	318.0
22.5°	1678.2	1664.4	1611.9	1318.8	718.8	365.0	304.1	301.4	298.6	295.8	295.8
25°	1758.4	1741.8	1661.6	1139.1	494.9	298.6	290.3	282.0	276.5	270.9	268.2
27.5°	1855.2	1833.1	1700.3	917.9	340.1	279.2	273.7	259.9	248.8	237.8	237.8
30°	1951.9	1924.3	1689.3	691.2	276.5	259.9	248.8	232.2	215.7	204.6	201.8
32.5°	2054.2	2026.6	1617.4	464.5	251.6	237.8	223.9	199.1	179.7	165.9	163.1
35°	2206.3	2184.2	1476.4	306.9	226.7	210.1	190.8	165.9	141.0	127.2	124.4
37.5°	2433.0	2405.4	1302.2	235.0	199.1	174.2	157.6	129.9	105.1	91.2	88.5
40°	2737.1	2654.2	1094.9	207.4	174.2	143.8	121.7	94.0	74.6	66.4	66.4
42.5°	3091.0	2894.7	870.9	188.0	154.8	118.9	88.5	63.6	52.5	49.8	49.8
45°	3467.1	3118.7	647.0	174.2	135.5	94.0	63.6	44.2	38.7	35.9	35.9
47.5°	3854.1	3301.2	450.7	157.6	113.4	71.9	44.2	33.2	27.6	24.9	24.9
50°	4216.3	3420.0	318.0	141.0	96.8	52.5	33.2	24.9	19.4	19.4	19.4
52.5°	4467.9	3409.0	229.5	121.7	74.6	35.9	22.1	16.6	16.6	16.6	16.6
55°	4689.1	3367.5	179.7	105.1	58.1	24.9	16.6	13.8	13.8	11.1	11.1
57.5°	4877.1	3301.2	152.1	85.7	41.5	19.4	11.1	11.1	8.3	8.3	8.3
60°	5037.5	3218.2	127.2	71.9	27.6	13.8	8.3	5.5	5.5	2.8	5.5
62.5°	5255.9	3165.7	110.6	55.3	19.4	8.3	5.5	2.8	2.8	0.0	0.0
65°	5416.2	3066.2	94.0	38.7	11.1	5.5	2.8	2.8	0.0	0.0	0.0
67.5°	5421.8	2886.4	69.1	22.1	8.3	5.5	2.8	0.0	0.0	0.0	0.0
70°	4984.9	2460.7	44.2	11.1	5.5	2.8	2.8	0.0	0.0	0.0	0.0
71°	4584.0	2178.7	35.9	8.3	5.5	2.8	0.0	0.0	0.0	0.0	0.0
72.5°	3776.7	1600.8	27.6	8.3	2.8	2.8	0.0	0.0	0.0	0.0	0.0
75°	2081.9	580.6	13.8	5.5	2.8	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	666.3	176.9	8.3	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	113.4	27.6	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	38.7	11.1	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	11.1	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	5.5	2.8	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)