

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: P234830

Luminaire Tested: **ARCH-M-AF48-160-D-U-T3-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234830
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-AF48-160-D-U-T3-8027-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 1030mA 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: 10838 lumens
Efficiency: N/A
Efficacy: 67.3 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): 161
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

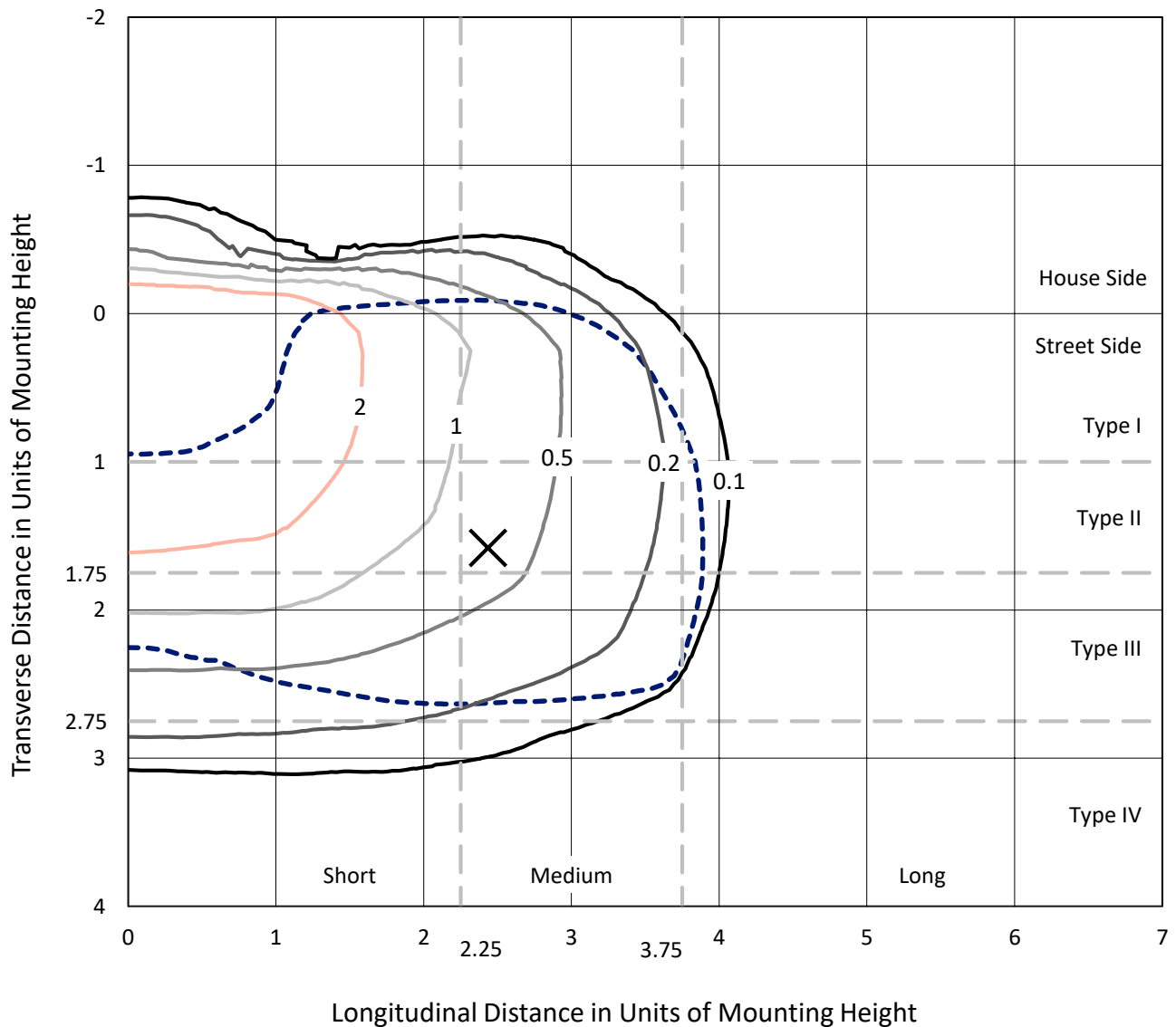


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

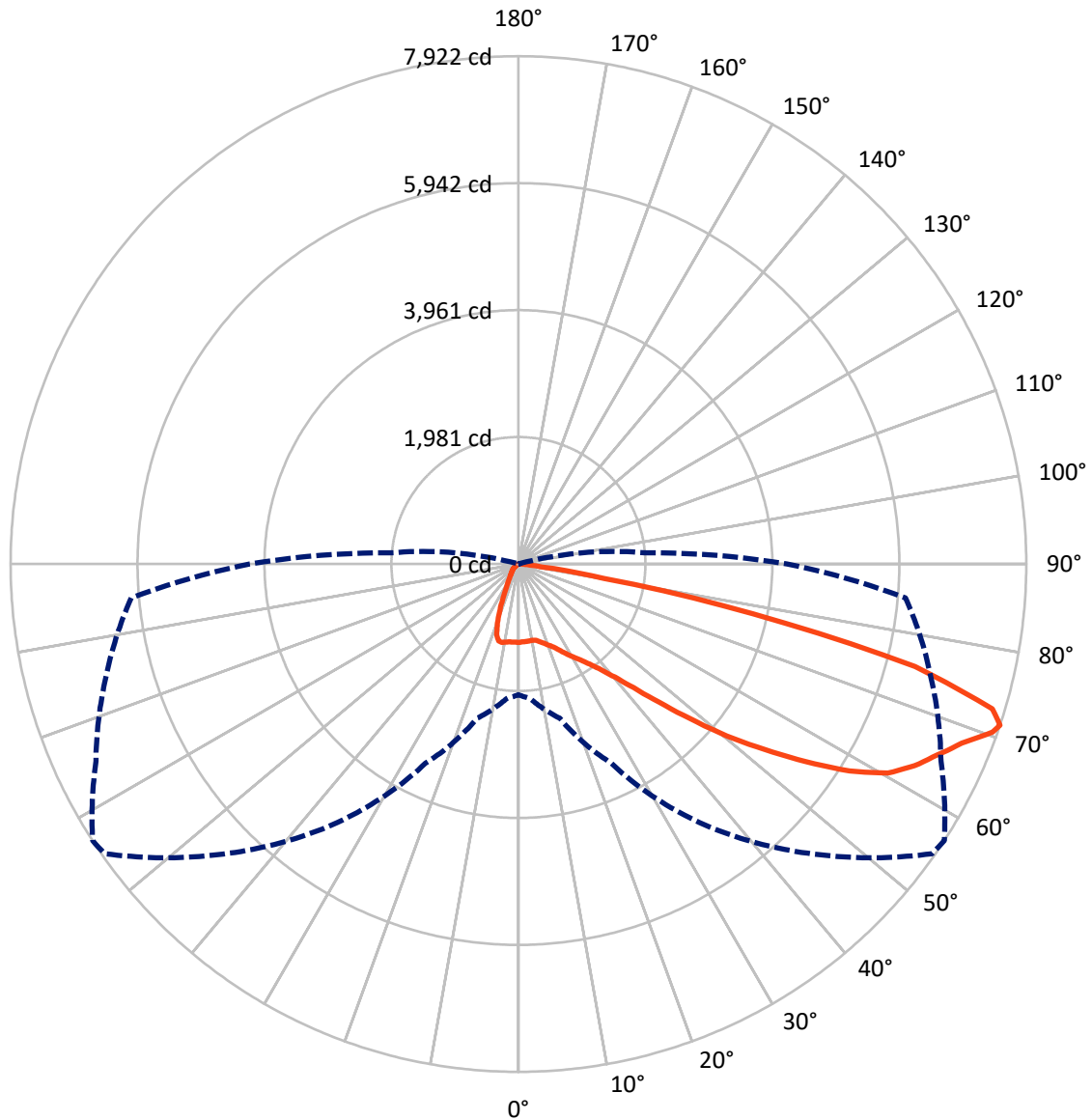


Based on 20 foot mounting height. Maximum calculated value = 3.8 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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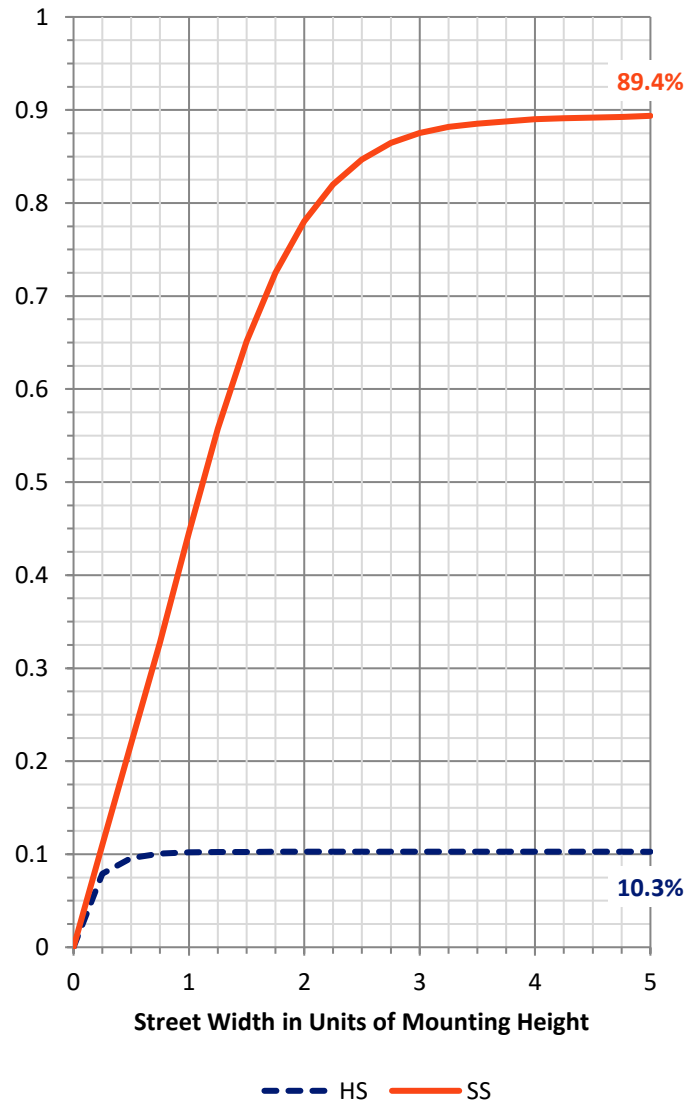
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1123.2	0.0	1123.2
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	9714.8	0.0	9714.8
	% Fixture	89.6	0.0	89.6
Total	Lumens	10838.0	0.0	10838.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.0	1.1
10°-20°	307.6	2.8
20°-30°	479.8	4.4
30°-40°	810.9	7.5
40°-50°	1575.0	14.5
50°-60°	2645.0	24.4
60°-70°	3156.6	29.1
70°-80°	1663.5	15.3
80°-90°	84.5	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°	10838.0	100.0
0°-180°	10838.0	100.0



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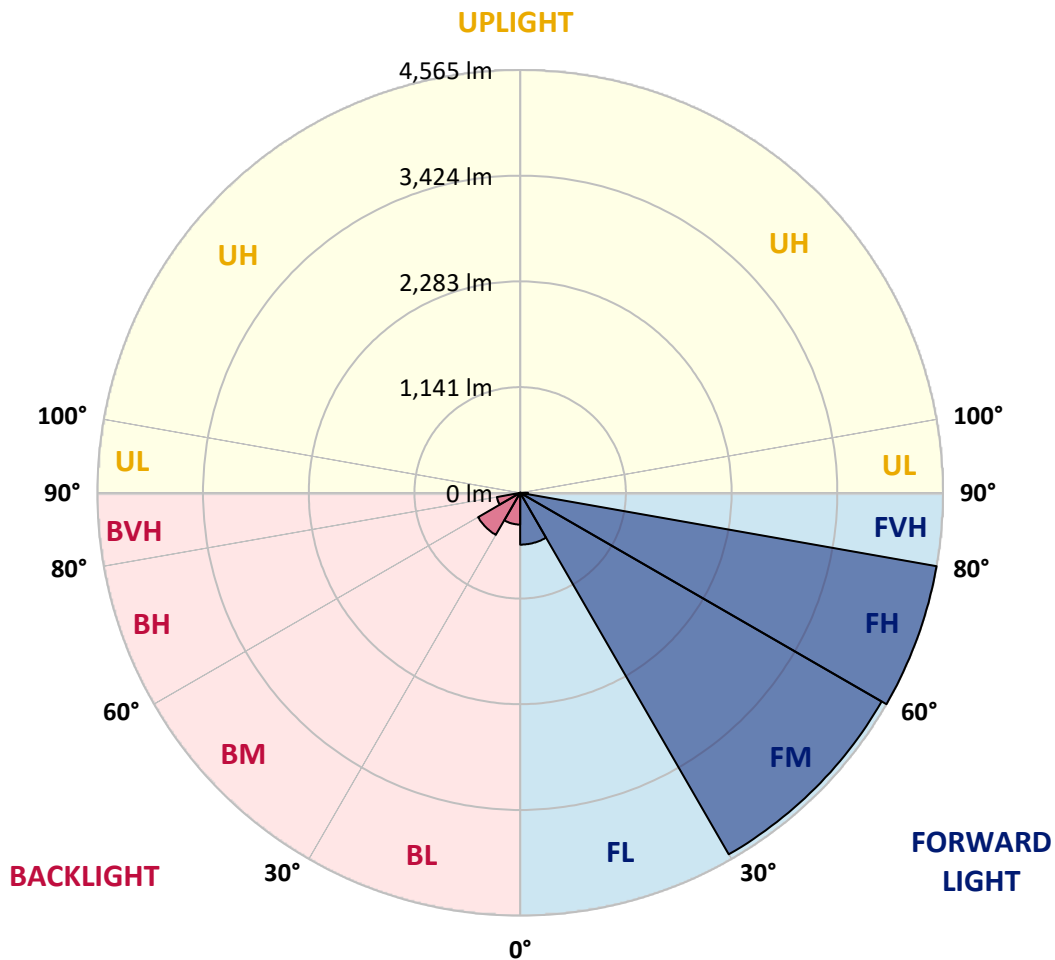
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	559.5	5.2			
FM	(30°-60°)	4506.5	41.6			
FH	(60°-80°)	4565.0	42.1			G2/5000
FVH	(80°-90°)	83.7	0.8			G1/100
BL	(0°-30°)	342.8	3.2	B1/500		
BM	(30°-60°)	524.4	4.8	B1/1000		
BH	(60°-80°)	255.1	2.4	B1/500		G1/500
BVH	(80°-90°)	0.8	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°	1224.9	1224.9	1224.9	1224.9	1224.9	1224.9	1224.9	1224.9	1224.9	1224.9	1224.9
2.5°	1207.2	1207.2	1207.2	1209.7	1212.2	1212.2	1217.3	1214.8	1214.8	1214.8	1219.8
5°	1174.3	1176.9	1179.4	1184.5	1194.6	1202.1	1214.8	1214.8	1217.3	1222.3	1224.9
7.5°	1128.9	1131.4	1139.0	1149.1	1169.3	1187.0	1207.2	1212.2	1219.8	1232.4	1237.5
10°	1101.1	1106.2	1116.3	1128.9	1151.6	1174.3	1199.6	1207.2	1229.9	1252.6	1265.3
12.5°	1093.5	1096.1	1106.2	1126.4	1154.1	1181.9	1214.8	1222.3	1255.2	1290.5	1310.7
15°	1106.2	1108.7	1113.7	1136.5	1169.3	1204.7	1247.6	1257.7	1298.1	1338.5	1363.8
17.5°	1128.9	1128.9	1133.9	1154.1	1189.5	1229.9	1285.5	1300.6	1346.1	1391.5	1419.3
20°	1144.0	1144.0	1151.6	1171.8	1212.2	1265.3	1330.9	1351.1	1401.6	1452.2	1477.4
22.5°	1159.2	1161.7	1169.3	1192.0	1237.5	1310.7	1386.5	1406.7	1464.8	1517.8	1543.1
25°	1202.1	1199.6	1202.1	1222.3	1275.4	1366.3	1462.3	1487.5	1548.1	1606.2	1618.8
27.5°	1320.8	1315.8	1282.9	1270.3	1310.7	1424.4	1558.2	1583.5	1654.2	1712.3	1712.3
30°	1593.6	1583.5	1502.7	1399.1	1366.3	1477.4	1649.1	1684.5	1775.4	1825.9	1810.8
32.5°	1939.6	1916.8	1813.3	1636.5	1505.2	1548.1	1745.1	1785.5	1901.7	1944.6	1911.8
35°	2318.4	2315.9	2187.1	1959.8	1772.9	1694.6	1868.9	1916.8	2063.3	2101.2	2048.2
37.5°	2719.9	2730.0	2644.2	2331.0	2111.3	1934.5	2033.0	2088.6	2267.9	2313.3	2262.8
40°	3167.0	3164.4	3131.6	2760.4	2517.9	2275.5	2270.4	2320.9	2538.1	2608.8	2538.1
42.5°	3732.7	3727.6	3608.9	3275.5	3010.4	2719.9	2616.4	2634.1	2876.5	2992.7	2889.2
45°	4308.5	4273.1	4136.7	3848.8	3614.0	3270.5	3073.5	3073.5	3280.6	3439.7	3278.1
47.5°	4629.2	4593.9	4538.3	4379.2	4308.5	3924.6	3634.2	3598.8	3760.4	3922.1	3694.8
50°	5051.0	5051.0	4912.1	4851.4	4972.7	4702.4	4252.9	4217.6	4295.8	4424.6	4126.6
52.5°	5384.3	5323.7	5225.2	5278.3	5624.2	5500.5	4871.7	4803.5	4864.1	4896.9	4502.9
55°	5523.2	5465.1	5457.6	5652.0	6187.4	6015.7	5505.5	5444.9	5439.9	5278.3	4831.2
57.5°	5551.0	5500.5	5596.5	5937.4	6735.5	6437.5	6136.9	6091.5	5950.0	5546.0	5167.1
60°	5316.1	5341.4	5573.7	6094.0	7058.7	6803.6	6669.8	6621.8	6296.0	5773.2	5540.9
62.5°	4833.8	4894.4	5328.8	6109.1	6940.0	6952.6	6965.3	6932.4	6563.7	5980.3	5917.2
65°	4263.0	4280.7	4803.5	5899.5	6732.9	6907.2	7182.5	7179.9	6768.3	6212.7	6341.5
67.5°	3512.9	3543.2	3995.3	5192.4	6318.8	6887.0	7467.8	7460.3	7000.6	6477.9	6594.0
70°	2613.9	2651.8	3017.9	4038.2	5394.4	6634.4	7841.6	7846.7	7245.6	6679.9	6419.8
71°	2038.1	2106.3	2490.1	3429.6	4922.2	6379.4	7877.0	7922.4	7273.4	6652.1	6061.2
72.5°	1000.1	1080.9	1563.3	2414.4	4050.9	5808.6	7644.6	7733.0	7099.1	6306.1	5182.3
75°	260.1	275.3	467.2	987.5	2171.9	3848.8	6164.7	6389.5	5803.6	4800.9	3167.0
77.5°	164.2	169.2	219.7	383.9	813.2	1462.3	3621.5	3732.7	3316.0	2432.0	1116.3
80°	116.2	118.7	138.9	247.5	474.8	426.8	1303.1	1351.1	1199.6	644.0	199.5
82.5°	70.7	70.7	101.0	159.1	293.0	232.3	343.5	366.2	323.3	179.3	65.7
85°	40.4	42.9	63.1	108.6	138.9	113.6	128.8	136.4	138.9	118.7	27.8
87.5°	32.8	35.4	55.6	90.9	75.8	55.6	55.6	58.1	60.6	70.7	12.6
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°	1224.9	1224.9	1224.9	1224.9	1224.9	1224.9	1224.9	1224.9	1224.9	1224.9	1224.9
2.5°	1219.8	1219.8	1222.3	1219.8	1219.8	1219.8	1222.3	1222.3	1222.3	1227.4	1229.9
5°	1224.9	1224.9	1224.9	1222.3	1219.8	1219.8	1224.9	1227.4	1227.4	1235.0	1235.0
7.5°	1237.5	1237.5	1232.4	1227.4	1222.3	1214.8	1217.3	1219.8	1217.3	1219.8	1219.8
10°	1265.3	1265.3	1257.7	1247.6	1232.4	1209.7	1179.4	1141.5	1106.2	1093.5	1088.5
12.5°	1310.7	1308.2	1293.0	1275.4	1242.5	1164.2	1050.6	916.7	805.6	775.3	765.2
15°	1361.2	1356.2	1338.5	1308.2	1219.8	1012.7	775.3	603.6	497.5	472.3	467.2
17.5°	1414.3	1406.7	1381.4	1320.8	1116.3	752.6	500.0	378.8	320.7	315.7	318.2
20°	1469.8	1459.7	1424.4	1295.6	901.6	502.6	323.3	293.0	287.9	287.9	290.4
22.5°	1533.0	1520.3	1472.4	1204.7	656.6	333.4	277.8	275.3	272.8	270.2	270.2
25°	1606.2	1591.1	1517.8	1040.5	452.1	272.8	265.2	257.6	252.5	247.5	245.0
27.5°	1694.6	1674.4	1553.2	838.5	310.6	255.1	250.0	237.4	227.3	217.2	217.2
30°	1783.0	1757.7	1543.1	631.4	252.5	237.4	227.3	212.1	197.0	186.9	184.4
32.5°	1876.4	1851.2	1477.4	424.3	229.8	217.2	204.6	181.8	164.2	151.5	149.0
35°	2015.3	1995.1	1348.6	280.3	207.1	191.9	174.3	151.5	128.8	116.2	113.6
37.5°	2222.4	2197.2	1189.5	214.7	181.8	159.1	144.0	118.7	96.0	83.3	80.8
40°	2500.2	2424.5	1000.1	189.4	159.1	131.3	111.1	85.9	68.2	60.6	60.6
42.5°	2823.5	2644.2	795.5	171.7	141.4	108.6	80.8	58.1	48.0	45.5	45.5
45°	3167.0	2848.7	591.0	159.1	123.7	85.9	58.1	40.4	35.4	32.8	32.8
47.5°	3520.5	3015.4	411.7	144.0	103.5	65.7	40.4	30.3	25.3	22.7	22.7
50°	3851.4	3124.0	290.4	128.8	88.4	48.0	30.3	22.7	17.7	17.7	17.7
52.5°	4081.2	3113.9	209.6	111.1	68.2	32.8	20.2	15.2	15.2	15.2	15.2
55°	4283.2	3076.0	164.2	96.0	53.0	22.7	15.2	12.6	12.6	10.1	10.1
57.5°	4454.9	3015.4	138.9	78.3	37.9	17.7	10.1	10.1	7.6	7.6	7.6
60°	4601.4	2939.7	116.2	65.7	25.3	12.6	7.6	5.1	5.1	2.5	5.1
62.5°	4800.9	2891.7	101.0	50.5	17.7	7.6	5.1	2.5	2.5	0.0	0.0
65°	4947.4	2800.8	85.9	35.4	10.1	5.1	2.5	2.5	0.0	0.0	0.0
67.5°	4952.5	2636.6	63.1	20.2	7.6	5.1	2.5	0.0	0.0	0.0	0.0
70°	4553.4	2247.7	40.4	10.1	5.1	2.5	2.5	0.0	0.0	0.0	0.0
71°	4187.2	1990.1	32.8	7.6	5.1	2.5	0.0	0.0	0.0	0.0	0.0
72.5°	3449.8	1462.3	25.3	7.6	2.5	2.5	0.0	0.0	0.0	0.0	0.0
75°	1901.7	530.4	12.6	5.1	2.5	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	608.6	161.6	7.6	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	103.5	25.3	5.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	35.4	10.1	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	10.1	5.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	5.1	2.5	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)