

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: P231227

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231227
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-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 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: 12417.6 lumens
Efficiency: N/A
Efficacy: 94.8 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 - G3

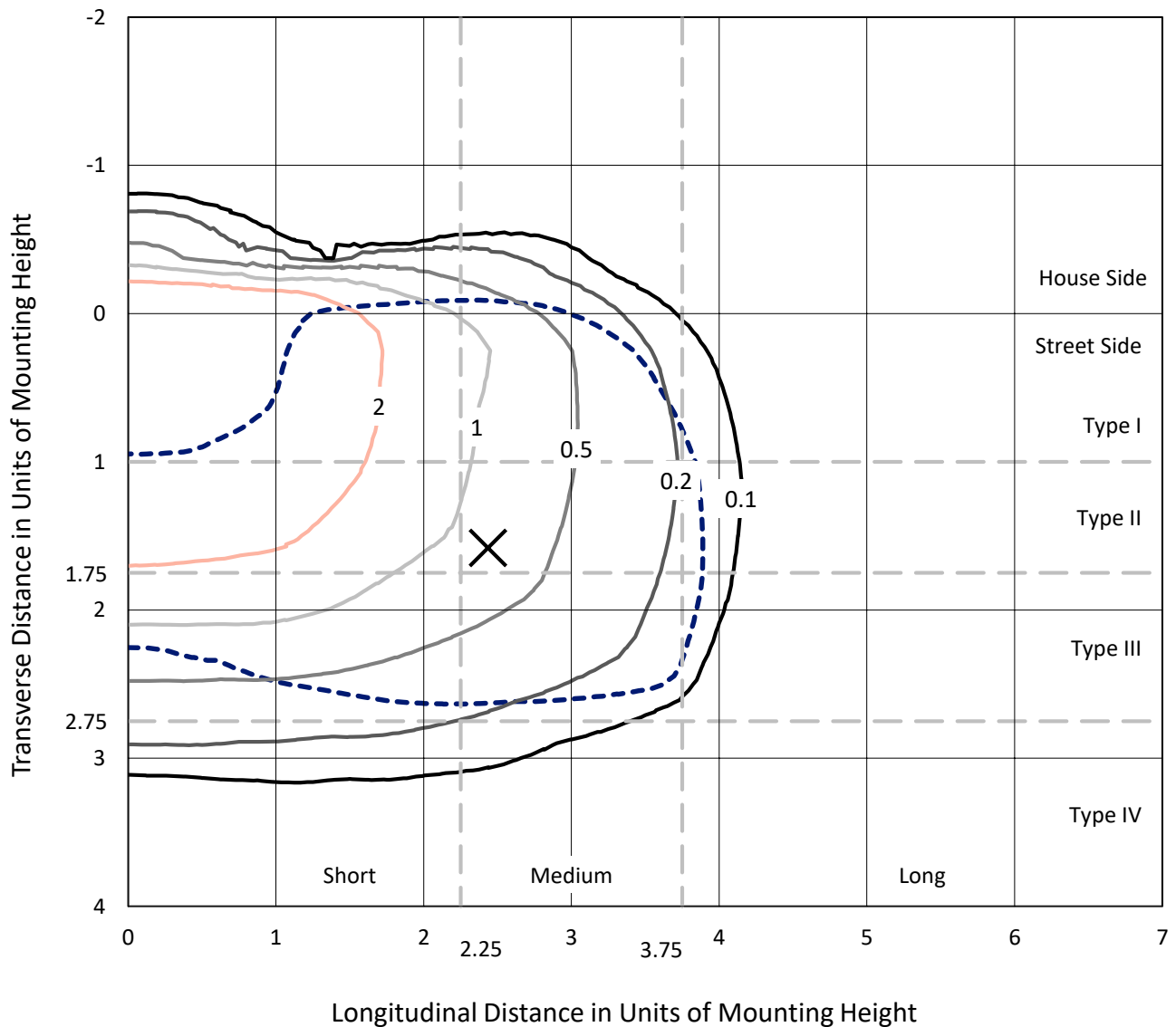
Input Watts (W): 131
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

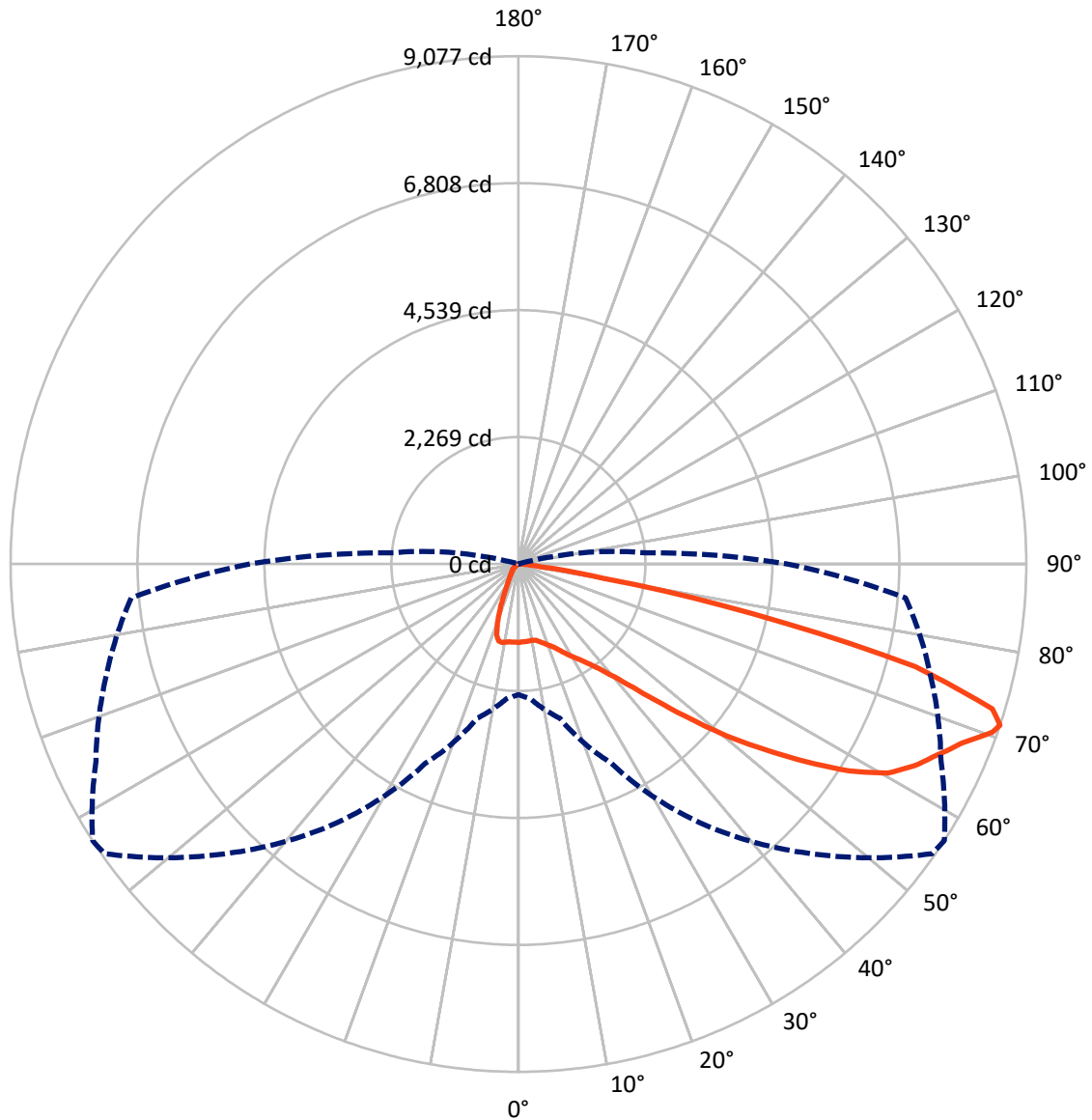


Based on 20 foot mounting height. Maximum calculated value = 4.4 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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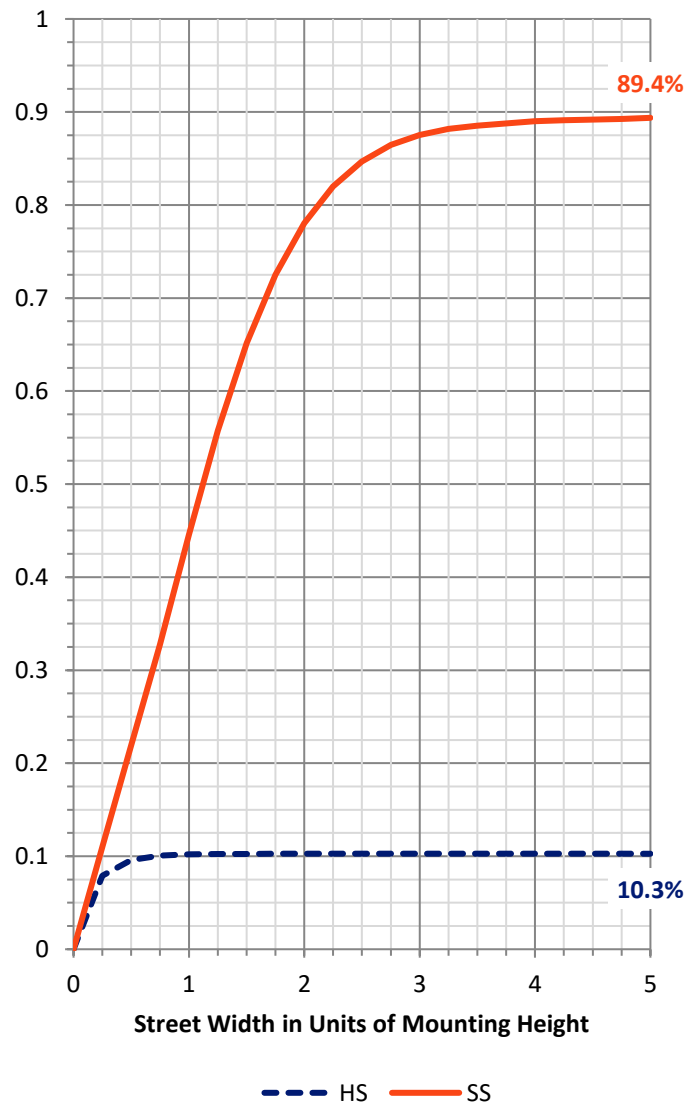
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1286.9	0.0	1286.9
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	11130.8	0.0	11130.8
	% Fixture	89.6	0.0	89.6
Total	Lumens	12417.6	0.0	12417.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.8	1.1
10°-20°	352.4	2.8
20°-30°	549.7	4.4
30°-40°	929.1	7.5
40°-50°	1804.6	14.5
50°-60°	3030.5	24.4
60°-70°	3616.6	29.1
70°-80°	1906.0	15.3
80°-90°	96.8	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°	12417.6	100.0
0°-180°	12417.6	100.0



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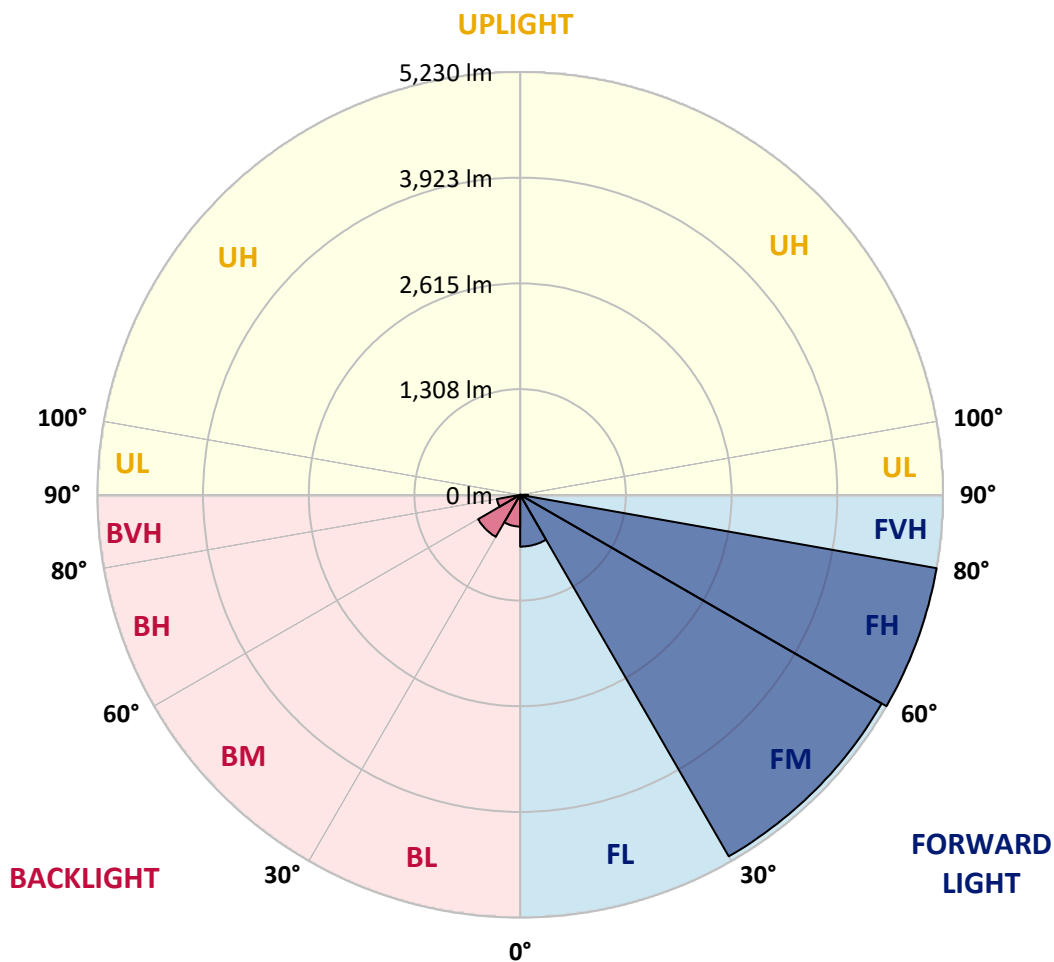
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	641.1	5.2			
FM	(30°-60°)	5163.4	41.6			
FH	(60°-80°)	5230.4	42.1			G3/7500
FVH	(80°-90°)	95.9	0.8			G1/100
BL	(0°-30°)	392.8	3.2	B1/500		
BM	(30°-60°)	600.9	4.8	B1/1000		
BH	(60°-80°)	292.2	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-G3

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	1403.4	1403.4	1403.4	1403.4	1403.4	1403.4	1403.4	1403.4	1403.4	1403.4	1403.4
2.5°	1383.1	1383.1	1383.1	1386.0	1388.9	1388.9	1394.7	1391.8	1391.8	1391.8	1397.6
5°	1345.5	1348.4	1351.3	1357.0	1368.6	1377.3	1391.8	1391.8	1394.7	1400.5	1403.4
7.5°	1293.4	1296.3	1305.0	1316.5	1339.8	1360.0	1383.1	1388.9	1397.6	1412.1	1417.8
10°	1261.6	1267.3	1279.0	1293.4	1319.5	1345.5	1374.4	1383.1	1409.1	1435.2	1449.6
12.5°	1252.9	1255.8	1267.3	1290.6	1322.4	1354.2	1391.8	1400.5	1438.1	1478.6	1501.8
15°	1267.3	1270.3	1276.0	1302.1	1339.8	1380.3	1429.4	1441.0	1487.3	1533.6	1562.6
17.5°	1293.4	1293.4	1299.2	1322.4	1362.9	1409.1	1472.8	1490.2	1542.3	1594.4	1626.2
20°	1310.8	1310.8	1319.5	1342.6	1388.9	1449.6	1524.9	1548.0	1605.9	1663.8	1692.8
22.5°	1328.1	1331.1	1339.8	1365.7	1417.8	1501.8	1588.5	1611.8	1678.3	1739.0	1768.0
25°	1377.3	1374.4	1377.3	1400.5	1461.3	1565.4	1675.4	1704.3	1773.8	1840.3	1854.8
27.5°	1513.4	1507.5	1469.9	1455.5	1501.8	1632.0	1785.4	1814.3	1895.3	1961.8	1961.8
30°	1825.9	1814.3	1721.6	1603.1	1565.4	1692.8	1889.5	1930.0	2034.1	2092.0	2074.6
32.5°	2222.3	2196.2	2077.6	1875.1	1724.6	1773.8	1999.5	2045.7	2178.9	2228.1	2190.4
35°	2656.3	2653.4	2505.8	2245.4	2031.3	1941.6	2141.2	2196.2	2364.0	2407.4	2346.6
37.5°	3116.3	3128.0	3029.6	2670.7	2419.0	2216.4	2329.4	2393.0	2598.4	2650.5	2592.7
40°	3628.5	3625.6	3588.0	3162.7	2884.9	2607.1	2601.3	2659.2	2908.0	2989.1	2908.0
42.5°	4276.7	4270.9	4134.9	3752.9	3449.1	3116.3	2997.8	3018.0	3295.7	3428.8	3310.3
45°	4936.5	4895.9	4739.6	4409.7	4140.7	3747.2	3521.5	3521.5	3758.7	3941.0	3755.9
47.5°	5303.9	5263.4	5199.8	5017.5	4936.5	4496.6	4163.8	4123.3	4308.5	4493.7	4233.3
50°	5787.1	5787.1	5628.0	5558.5	5697.4	5387.8	4872.7	4832.2	4921.9	5069.5	4728.1
52.5°	6169.1	6099.7	5986.8	6047.6	6444.0	6302.2	5581.6	5503.6	5573.0	5610.6	5159.3
55°	6328.2	6261.7	6253.0	6475.8	7089.3	6892.4	6307.9	6238.6	6232.7	6047.6	5535.4
57.5°	6360.1	6302.2	6412.2	6802.7	7717.1	7375.7	7031.4	6979.3	6817.3	6354.3	5920.2
60°	6091.0	6119.9	6386.1	6982.2	8087.6	7795.3	7641.9	7586.9	7213.6	6614.7	6348.4
62.5°	5538.3	5607.7	6105.4	6999.5	7951.5	7965.9	7980.4	7942.8	7520.3	6851.9	6779.6
65°	4884.3	4904.5	5503.6	6759.4	7714.3	7913.9	8229.3	8226.4	7754.8	7118.2	7265.7
67.5°	4024.9	4059.7	4577.6	5949.2	7239.7	7890.7	8556.3	8547.6	8021.0	7422.0	7555.1
70°	2994.8	3038.3	3457.8	4626.8	6180.7	7601.3	8984.5	8990.3	8301.7	7653.5	7355.4
71°	2335.1	2413.2	2853.0	3929.5	5639.5	7309.1	9025.0	9077.1	8333.5	7621.6	6944.5
72.5°	1145.8	1238.5	1791.1	2766.3	4641.2	6655.2	8758.8	8860.1	8133.8	7225.2	5937.6
75°	298.1	315.4	535.3	1131.4	2488.4	4409.7	7063.2	7320.7	6649.4	5500.6	3628.5
77.5°	188.1	193.8	251.7	439.9	931.7	1675.4	4149.4	4276.7	3799.2	2786.5	1279.0
80°	133.1	136.0	159.2	283.6	544.0	489.0	1493.1	1548.0	1374.4	737.9	228.6
82.5°	81.0	81.0	115.7	182.3	335.6	266.2	393.5	419.6	370.4	205.4	75.2
85°	46.3	49.2	72.3	124.4	159.2	130.2	147.6	156.2	159.2	136.0	31.8
87.5°	37.6	40.5	63.6	104.1	86.8	63.6	63.6	66.6	69.5	81.0	14.4
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°	1403.4	1403.4	1403.4	1403.4	1403.4	1403.4	1403.4	1403.4	1403.4	1403.4	1403.4
2.5°	1397.6	1397.6	1400.5	1397.6	1397.6	1397.6	1400.5	1400.5	1400.5	1406.3	1409.1
5°	1403.4	1403.4	1403.4	1400.5	1397.6	1397.6	1403.4	1406.3	1406.3	1414.9	1414.9
7.5°	1417.8	1417.8	1412.1	1406.3	1400.5	1391.8	1394.7	1397.6	1394.7	1397.6	1397.6
10°	1449.6	1449.6	1441.0	1429.4	1412.1	1386.0	1351.3	1307.8	1267.3	1252.9	1247.1
12.5°	1501.8	1498.8	1481.5	1461.3	1423.6	1333.9	1203.7	1050.4	923.0	888.3	876.8
15°	1559.6	1553.9	1533.6	1498.8	1397.6	1160.3	888.3	691.5	570.0	541.1	535.3
17.5°	1620.4	1611.8	1582.8	1513.4	1279.0	862.2	573.0	434.0	367.4	361.7	364.6
20°	1684.1	1672.5	1632.0	1484.4	1033.0	575.8	370.4	335.6	329.9	329.9	332.8
22.5°	1756.4	1741.9	1686.9	1380.3	752.3	382.0	318.3	315.4	312.5	309.6	309.6
25°	1840.3	1822.9	1739.0	1192.1	517.9	312.5	303.8	295.1	289.4	283.6	280.7
27.5°	1941.6	1918.4	1779.5	960.7	355.9	292.3	286.4	272.0	260.4	248.9	248.9
30°	2042.8	2013.9	1768.0	723.4	289.4	272.0	260.4	243.1	225.7	214.1	211.2
32.5°	2149.9	2121.0	1692.8	486.1	263.3	248.9	234.4	208.4	188.1	173.6	170.7
35°	2309.1	2285.9	1545.2	321.2	237.2	219.9	199.7	173.6	147.6	133.1	130.2
37.5°	2546.3	2517.4	1362.9	245.9	208.4	182.3	164.9	136.0	110.0	95.4	92.6
40°	2864.7	2777.8	1145.8	217.0	182.3	150.5	127.4	98.4	78.2	69.5	69.5
42.5°	3235.0	3029.6	911.4	196.7	162.0	124.4	92.6	66.6	54.9	52.1	52.1
45°	3628.5	3263.9	677.1	182.3	141.8	98.4	66.6	46.3	40.5	37.6	37.6
47.5°	4033.6	3454.9	471.7	164.9	118.7	75.2	46.3	34.7	28.9	26.1	26.1
50°	4412.7	3579.3	332.8	147.6	101.3	54.9	34.7	26.1	20.3	20.3	20.3
52.5°	4676.0	3567.7	240.2	127.4	78.2	37.6	23.1	17.4	17.4	17.4	17.4
55°	4907.5	3524.4	188.1	110.0	60.8	26.1	17.4	14.4	14.4	11.6	11.6
57.5°	5104.2	3454.9	159.2	89.7	43.4	20.3	11.6	11.6	8.7	8.7	8.7
60°	5272.1	3368.1	133.1	75.2	28.9	14.4	8.7	5.8	5.8	2.9	5.8
62.5°	5500.6	3313.1	115.7	57.9	20.3	8.7	5.8	2.9	2.9	0.0	0.0
65°	5668.5	3209.0	98.4	40.5	11.6	5.8	2.9	2.9	0.0	0.0	0.0
67.5°	5674.3	3020.9	72.3	23.1	8.7	5.8	2.9	0.0	0.0	0.0	0.0
70°	5217.0	2575.3	46.3	11.6	5.8	2.9	2.9	0.0	0.0	0.0	0.0
71°	4797.5	2280.2	37.6	8.7	5.8	2.9	0.0	0.0	0.0	0.0	0.0
72.5°	3952.6	1675.4	28.9	8.7	2.9	2.9	0.0	0.0	0.0	0.0	0.0
75°	2178.9	607.6	14.4	5.8	2.9	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	697.3	185.2	8.7	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	118.7	28.9	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	40.5	11.6	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	11.6	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	5.8	2.9	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)