

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: P265795

Luminaire Tested: **ARCH-M-AF48-80-D-U-T4W-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265795
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29625)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-80-D-U-T4W-7027-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 2700K, 535mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7175.6 lumens
Efficiency: N/A
Efficacy: 86.5 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 83
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

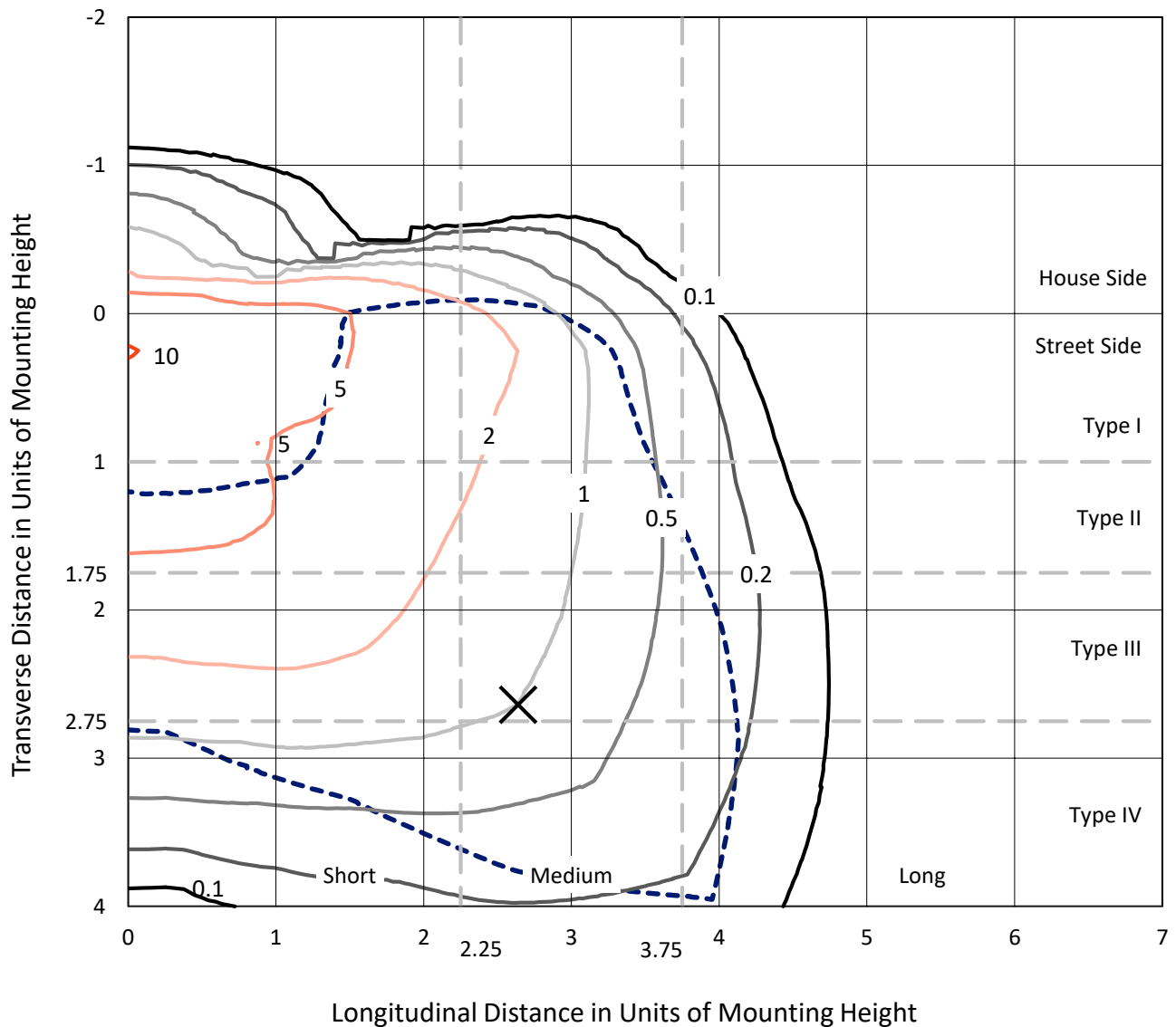


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

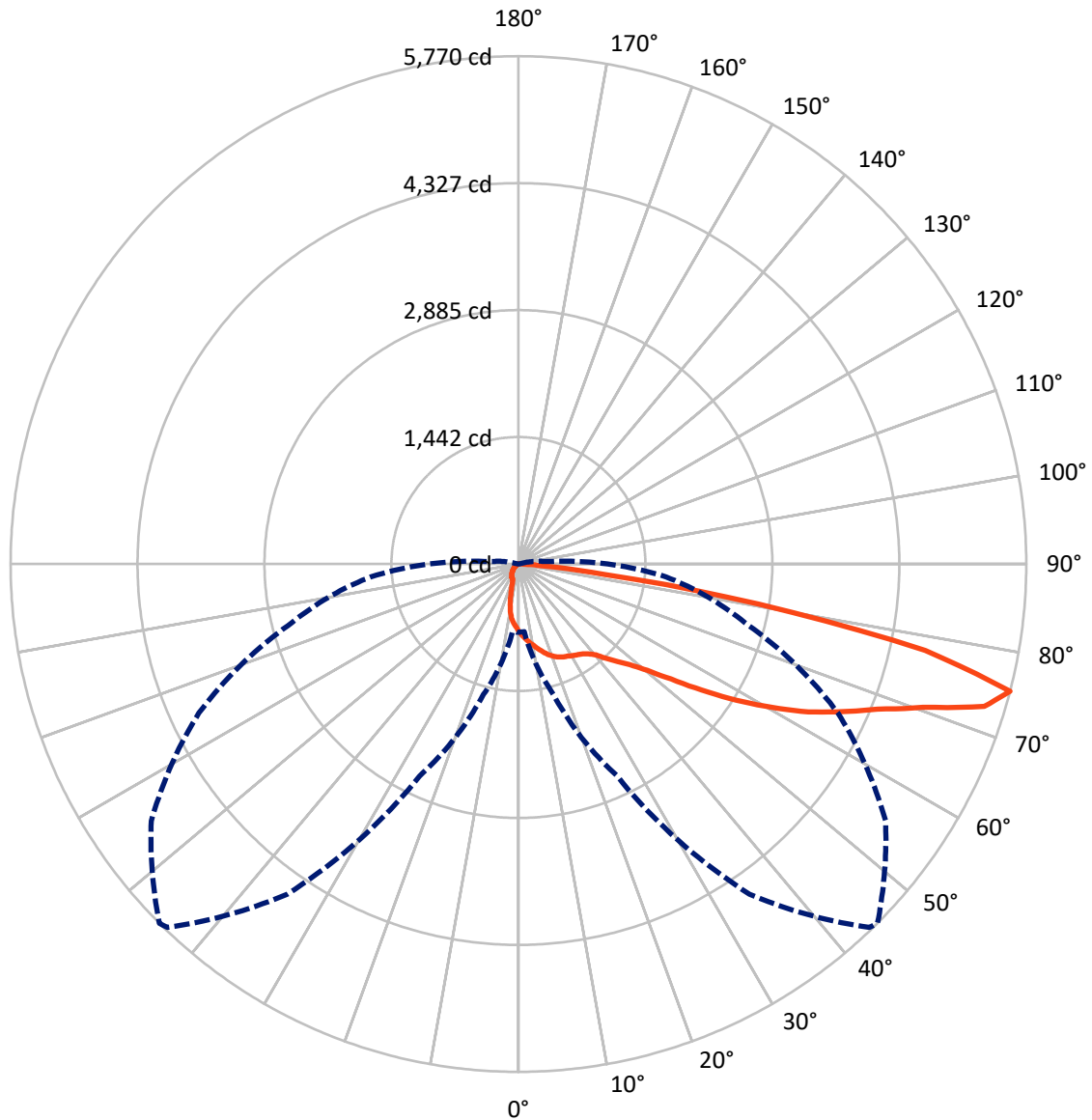


Based on 10 foot mounting height. Maximum calculated value = 10.2 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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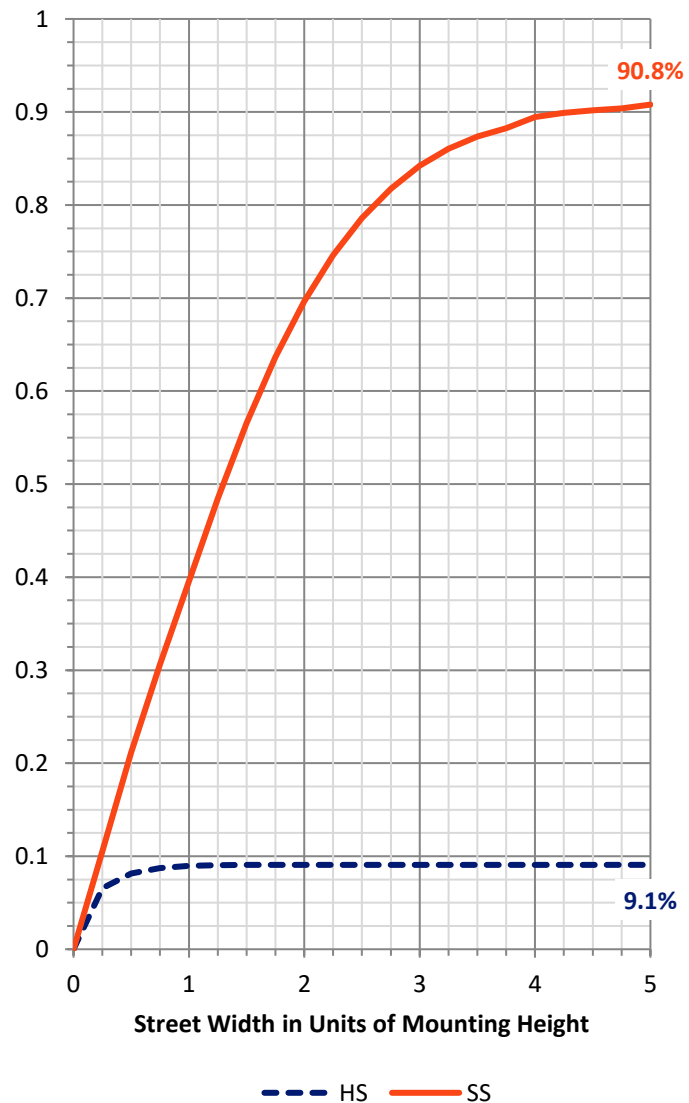
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	656.3	0.0	656.3
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	6519.3	0.0	6519.3
	% Fixture	90.9	0.0	90.9
Total	Lumens	7175.6	0.0	7175.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.4	1.0
10°-20°	205.2	2.9
20°-30°	339.8	4.7
30°-40°	491.8	6.9
40°-50°	805.4	11.2
50°-60°	1435.0	20.0
60°-70°	2109.6	29.4
70°-80°	1591.5	22.2
80°-90°	124.9	1.7
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°	7175.6	100.0
0°-180°	7175.6	100.0



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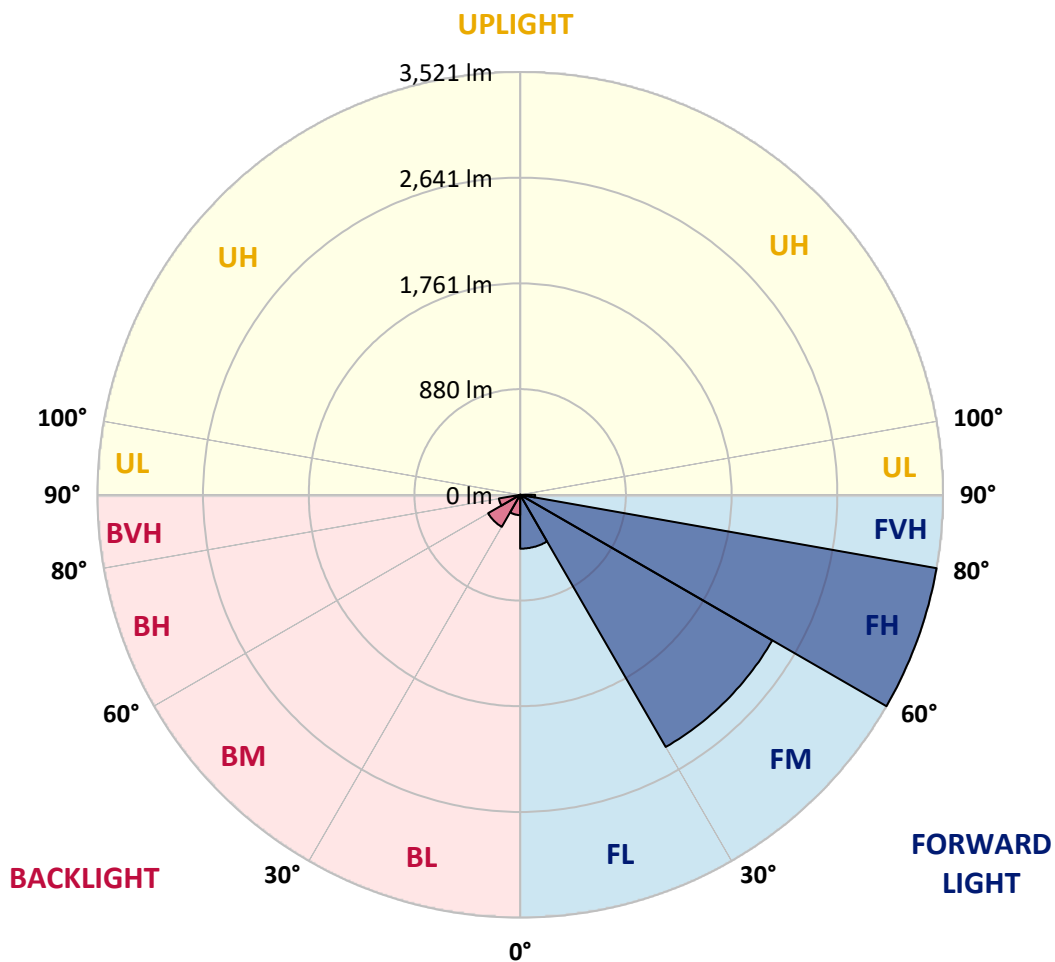
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	448.8	6.3			
FM	(30°-60°)	2424.6	33.8			
FH	(60°-80°)	3521.3	49.1			G2/5000
FVH	(80°-90°)	124.5	1.7			G2/225
BL	(0°-30°)	168.7	2.4	B1/500		
BM	(30°-60°)	307.6	4.3	B1/1000		
BH	(60°-80°)	179.8	2.5	B1/500		G1/500
BVH	(80°-90°)	0.3	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 IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	767.5	767.5	767.5	767.5	767.5	767.5	767.5	767.5	767.5	767.5	767.5
2.5°	833.6	833.6	832.0	830.4	821.8	813.3	811.6	806.5	791.2	781.0	770.8
5°	903.2	905.0	901.5	893.2	874.4	855.7	854.1	840.5	811.6	791.2	769.2
7.5°	969.5	973.0	964.4	949.1	927.1	899.9	898.2	872.8	835.5	806.5	774.2
10°	1025.5	1025.5	1013.6	995.1	971.2	942.3	939.0	910.2	867.7	832.0	789.5
12.5°	1086.7	1085.1	1068.1	1042.6	1015.4	988.1	986.5	950.9	910.2	864.3	811.6
15°	1142.7	1139.3	1117.2	1093.4	1064.6	1035.7	1034.0	998.3	955.9	901.5	843.9
17.5°	1173.2	1171.6	1151.2	1127.5	1103.7	1081.6	1079.9	1042.6	996.7	940.6	876.1
20°	1178.3	1180.1	1163.0	1142.7	1129.1	1117.2	1117.2	1083.3	1034.0	974.7	910.2
22.5°	1180.1	1185.1	1173.2	1146.1	1142.7	1144.4	1147.9	1120.6	1069.7	1013.6	945.7
25°	1192.0	1198.8	1190.3	1157.9	1154.6	1166.4	1170.0	1157.9	1112.1	1056.0	986.5
27.5°	1215.8	1222.6	1215.8	1175.0	1170.0	1181.8	1185.1	1192.0	1157.9	1096.9	1029.0
30°	1263.2	1265.0	1249.7	1198.8	1188.5	1203.9	1208.8	1227.7	1200.5	1135.9	1069.7
32.5°	1346.5	1329.5	1283.7	1215.8	1207.2	1224.2	1229.3	1249.7	1239.5	1173.2	1112.1
35°	1516.2	1427.9	1322.8	1239.5	1230.9	1247.9	1254.8	1283.7	1288.8	1225.8	1164.8
37.5°	1514.5	1434.8	1414.4	1285.4	1273.4	1285.4	1293.7	1329.5	1349.9	1295.5	1241.2
40°	1621.5	1587.6	1587.6	1371.9	1332.8	1349.9	1358.3	1394.0	1429.7	1387.3	1331.2
42.5°	1957.8	1935.7	1912.0	1538.3	1416.1	1463.6	1468.6	1490.7	1533.2	1519.7	1453.5
45°	2333.0	2312.5	2220.9	1820.1	1558.6	1567.3	1579.1	1614.8	1675.9	1701.3	1623.2
47.5°	2626.7	2606.3	2528.2	2159.7	1781.1	1706.4	1706.4	1776.0	1871.1	1935.7	1861.0
50°	2862.7	2839.0	2791.5	2521.5	2146.2	1906.8	1896.6	1978.1	2119.0	2219.3	2168.2
52.5°	3092.0	3022.3	2993.5	2895.0	2558.8	2197.2	2169.9	2227.6	2423.0	2547.0	2504.5
55°	3244.8	3234.5	3204.1	3238.0	2991.7	2550.3	2526.6	2538.4	2782.9	2866.1	2813.5
57.5°	3387.4	3385.7	3453.7	3611.5	3463.9	2954.4	2917.1	2898.4	3131.0	3110.7	3156.5
60°	3563.9	3533.5	3691.3	3917.1	3896.8	3348.3	3305.9	3268.6	3397.6	3339.9	3567.3
62.5°	3572.5	3563.9	3884.9	4209.2	4326.3	3749.0	3699.8	3565.7	3630.2	3563.9	3959.5
65°	3248.2	3290.6	3966.3	4363.6	4686.3	4100.6	4041.1	3832.3	3837.4	3793.3	4421.5
67.5°	3175.1	3197.2	3742.2	4530.2	4946.1	4455.5	4399.4	4139.6	4078.5	4081.9	4694.8
70°	2993.5	3027.5	3463.9	4518.3	5151.6	4929.1	4873.0	4591.2	4443.6	4278.8	4484.2
72.5°	2287.2	2344.8	2918.8	3961.3	5095.5	5548.9	5533.6	5163.5	4589.5	3929.0	3392.4
75°	774.2	772.5	1533.2	2660.7	4577.7	5739.0	5769.6	5092.1	4003.7	2709.8	1684.3
77.5°	166.4	168.2	315.8	1078.1	3041.0	4608.2	4725.4	3840.8	2582.5	1207.2	385.5
80°	81.4	83.3	130.8	285.2	1215.8	2584.2	2767.7	1974.7	954.2	241.1	64.5
82.5°	40.8	42.4	67.9	151.2	450.0	918.5	981.4	726.6	273.4	135.9	32.2
85°	15.4	15.4	34.0	90.0	205.4	215.7	264.9	210.6	164.7	110.3	8.4
87.5°	3.5	3.5	18.7	44.1	91.6	67.9	67.9	64.5	100.3	74.6	3.5
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°	767.5	767.5	767.5	767.5	767.5	767.5	767.5	767.5	767.5	767.5	767.5
2.5°	765.7	759.0	747.1	735.3	726.6	716.6	711.5	706.3	704.6	703.0	706.3
5°	757.4	747.1	725.0	706.3	689.4	675.7	665.6	655.5	650.4	646.9	648.7
7.5°	757.4	742.0	709.8	680.8	653.6	624.9	595.9	573.8	556.9	546.8	548.4
10°	765.7	745.5	703.0	663.8	613.0	551.7	488.9	441.4	409.2	390.6	390.6
12.5°	784.5	757.4	704.6	643.5	556.9	450.0	354.9	297.1	273.4	259.8	261.4
15°	809.9	777.7	713.2	616.3	478.8	334.4	247.9	210.6	210.6	213.9	215.7
17.5°	838.7	803.2	719.9	575.6	378.6	239.4	195.2	191.9	197.0	205.4	205.4
20°	867.7	828.5	723.3	511.0	283.5	190.3	185.1	185.1	188.5	197.0	198.6
22.5°	903.2	860.8	719.9	431.2	212.2	180.0	178.3	178.3	178.3	188.5	188.5
25°	940.6	898.2	706.3	346.3	180.0	173.3	171.4	169.8	169.8	178.3	180.0
27.5°	983.1	937.2	674.1	264.9	169.8	166.4	164.7	161.2	161.2	168.2	168.2
30°	1025.5	981.4	624.9	200.3	161.2	159.5	156.2	152.8	149.4	156.2	156.2
32.5°	1071.4	1027.2	560.4	159.5	149.4	149.4	147.7	142.7	139.2	142.7	144.3
35°	1132.6	1079.9	487.3	139.2	134.1	134.1	134.1	132.4	125.7	129.0	129.0
37.5°	1214.0	1153.0	402.4	129.0	122.3	118.8	118.8	118.8	113.7	115.4	115.4
40°	1317.6	1237.9	321.0	120.6	113.7	105.3	101.9	103.6	100.3	100.3	98.5
42.5°	1458.6	1329.5	241.1	113.7	107.0	95.1	88.4	86.5	83.3	81.4	81.4
45°	1660.5	1441.6	173.3	107.0	101.9	83.3	76.4	71.3	62.8	57.8	57.8
47.5°	1922.1	1568.9	129.0	100.3	96.7	73.0	64.5	54.3	42.4	39.0	39.0
50°	2241.4	1711.5	108.7	90.0	88.4	64.5	50.9	35.7	23.7	20.4	22.1
52.5°	2552.1	1845.7	96.7	79.8	78.2	56.1	37.4	18.7	10.2	10.2	10.2
55°	2813.5	1940.8	88.4	71.3	67.9	44.1	20.4	8.4	5.1	5.1	5.1
57.5°	3049.4	1995.0	79.8	62.8	54.3	30.5	8.4	3.5	3.5	1.6	1.6
60°	3265.2	2027.4	69.6	54.3	42.4	17.0	3.5	1.6	1.6	0.0	0.0
62.5°	3477.3	2051.1	59.4	44.1	32.2	6.7	1.6	1.6	0.0	0.0	0.0
65°	3638.7	2042.7	47.5	35.7	20.4	3.5	1.6	0.0	0.0	0.0	0.0
67.5°	3633.6	1927.1	35.7	27.2	10.2	1.6	0.0	0.0	0.0	0.0	0.0
70°	3249.9	1623.2	23.7	17.0	3.5	1.6	0.0	0.0	0.0	0.0	0.0
72.5°	2305.8	1040.9	15.4	10.2	1.6	0.0	0.0	0.0	0.0	0.0	0.0
75°	1015.4	315.8	8.4	5.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	198.6	73.0	5.1	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	47.5	8.4	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	20.4	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	5.1	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.5	1.6	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)