

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: P234823

Luminaire Tested: **ARCH-M-AF48-90-D-U-T3-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234823
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-AF48-90-D-U-T3-8027-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 80 CRI, 2700K, 600mA 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: 7187 lumens
Efficiency: N/A
Efficacy: 78.1 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): 92
Input Voltage (V): NR
Input Current (A_{in}): 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

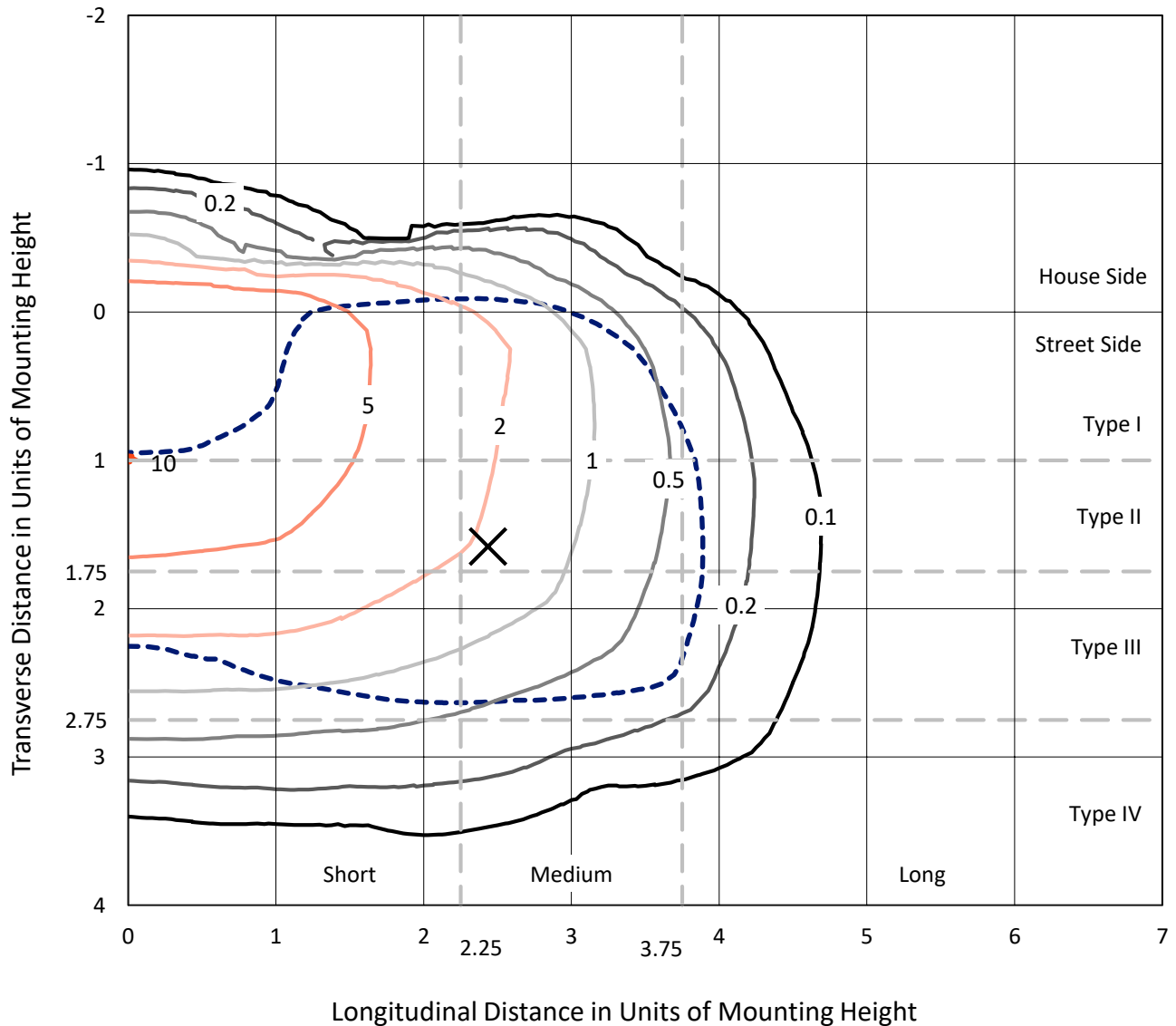


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

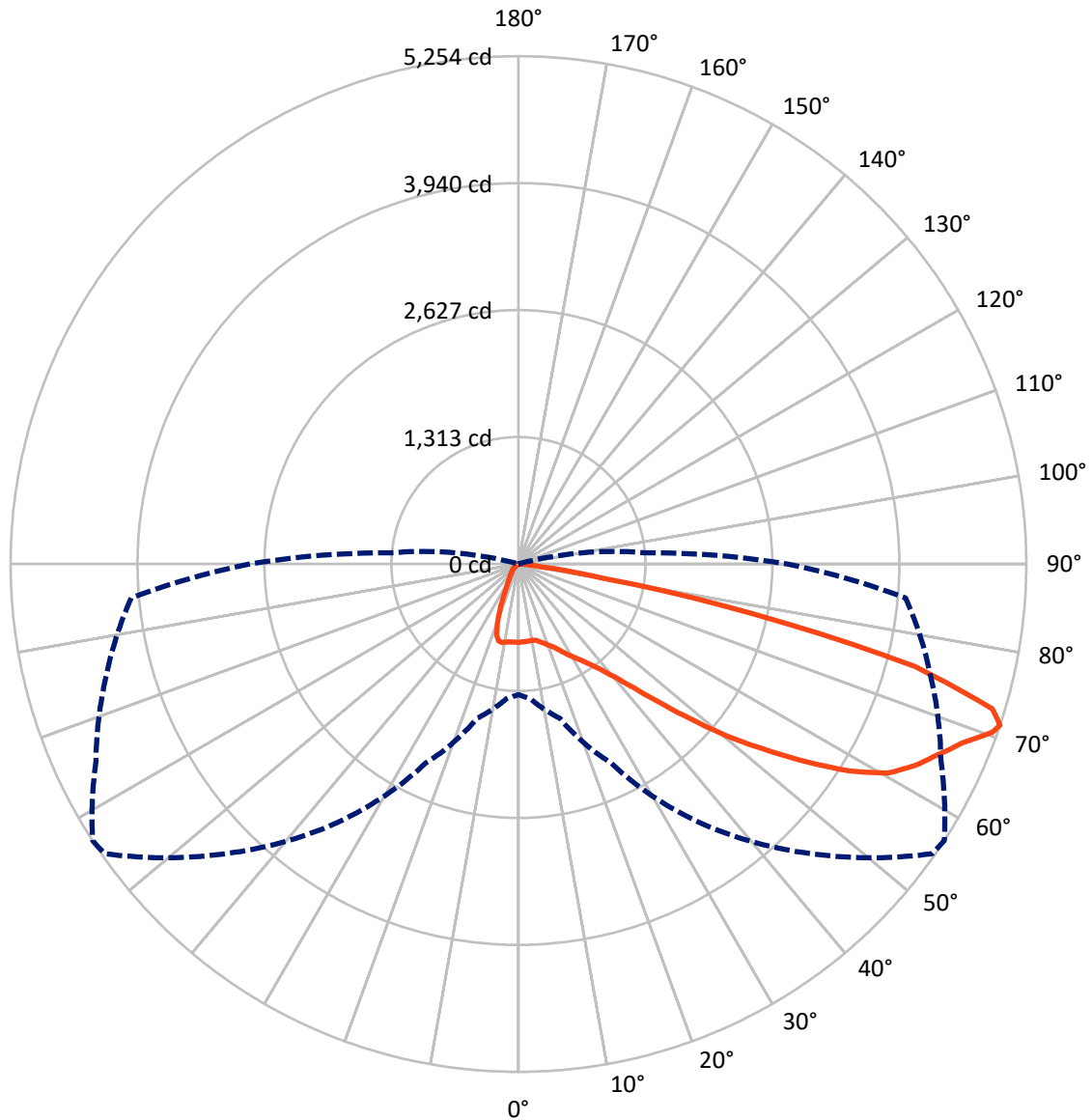


Based on 10 foot mounting height. Maximum calculated value = 10.1 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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



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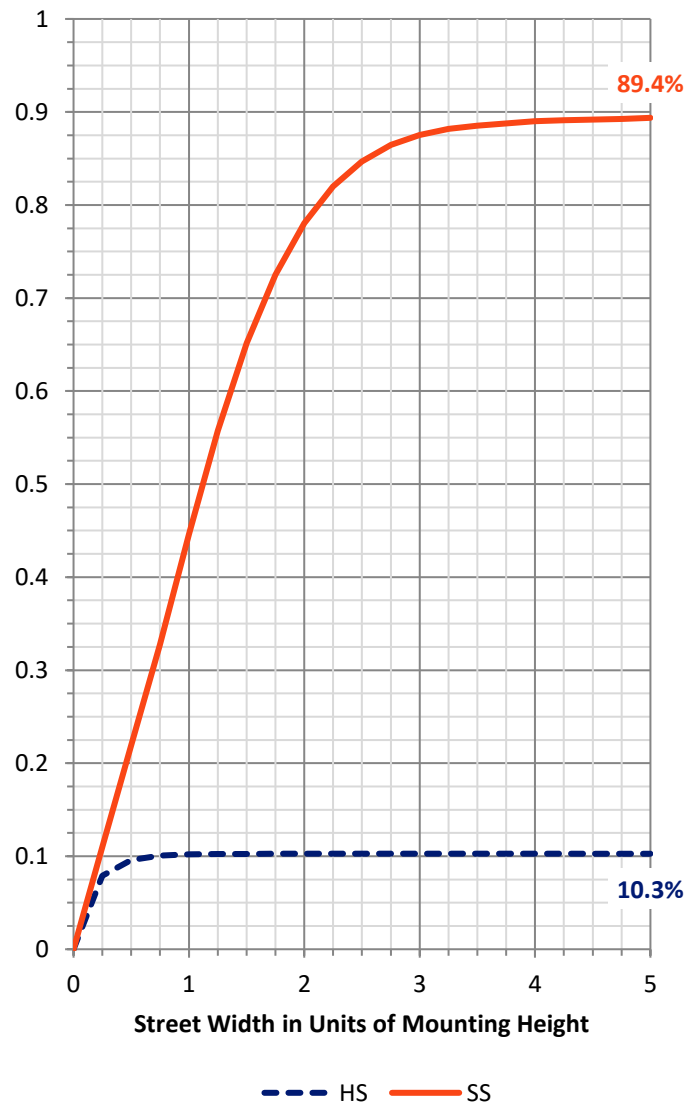
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	744.8	0.0	744.8
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	6442.2	0.0	6442.2
	% Fixture	89.6	0.0	89.6
Total	Lumens	7187.0	0.0	7187.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.3	1.1
10°-20°	204.0	2.8
20°-30°	318.2	4.4
30°-40°	537.8	7.5
40°-50°	1044.5	14.5
50°-60°	1754.0	24.4
60°-70°	2093.2	29.1
70°-80°	1103.1	15.3
80°-90°	56.1	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°	7187.0	100.0
0°-180°	7187.0	100.0



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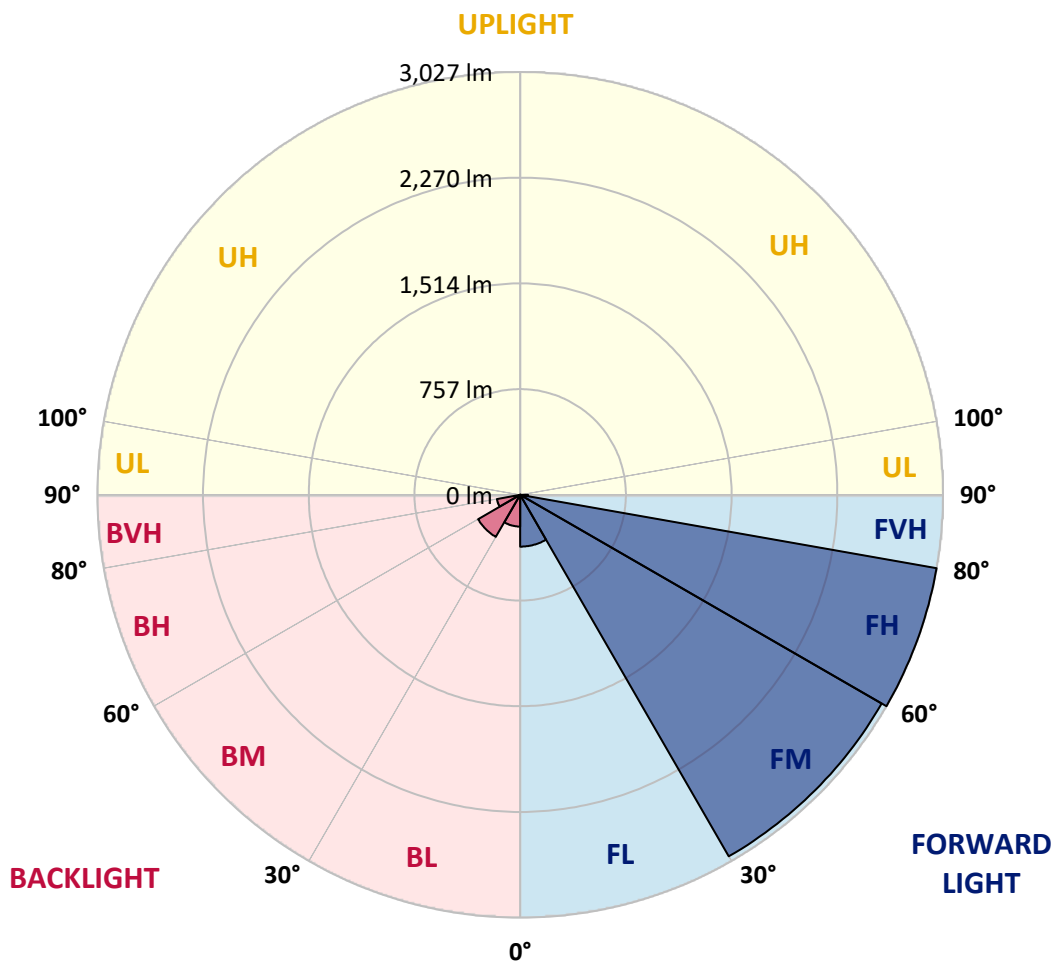
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	371.1	5.2			
FM	(30°-60°)	2988.4	41.6			
FH	(60°-80°)	3027.2	42.1			G2/5000
FVH	(80°-90°)	55.5	0.8			G1/100
BL	(0°-30°)	227.4	3.2	B1/500		
BM	(30°-60°)	347.8	4.8	B1/1000		
BH	(60°-80°)	169.1	2.4	B1/500		G1/500
BVH	(80°-90°)	0.5	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°	812.2	812.2	812.2	812.2	812.2	812.2	812.2	812.2	812.2	812.2	812.2
2.5°	800.5	800.5	800.5	802.2	803.9	803.9	807.2	805.5	805.5	805.5	808.9
5°	778.7	780.4	782.1	785.4	792.1	797.2	805.5	805.5	807.2	810.6	812.2
7.5°	748.6	750.3	755.3	762.0	775.4	787.1	800.5	803.9	808.9	817.3	820.6
10°	730.2	733.5	740.2	748.6	763.7	778.7	795.5	800.5	815.6	830.7	839.0
12.5°	725.2	726.8	733.5	746.9	765.3	783.8	805.5	810.6	832.3	855.8	869.2
15°	733.5	735.2	738.6	753.6	775.4	798.8	827.3	834.0	860.8	887.6	904.3
17.5°	748.6	748.6	751.9	765.3	788.8	815.6	852.4	862.5	892.6	922.8	941.2
20°	758.6	758.6	763.7	777.1	803.9	839.0	882.6	896.0	929.5	963.0	979.7
22.5°	768.7	770.4	775.4	790.5	820.6	869.2	919.4	932.8	971.3	1006.5	1023.3
25°	797.2	795.5	797.2	810.6	845.7	906.0	969.7	986.4	1026.6	1065.1	1073.5
27.5°	875.9	872.5	850.8	842.4	869.2	944.5	1033.3	1050.1	1096.9	1135.5	1135.5
30°	1056.7	1050.1	996.5	927.8	906.0	979.7	1093.6	1117.0	1177.3	1210.8	1200.8
32.5°	1286.2	1271.1	1202.5	1085.2	998.1	1026.6	1157.2	1184.0	1261.1	1289.5	1267.8
35°	1537.4	1535.7	1450.3	1299.6	1175.7	1123.7	1239.3	1271.1	1368.2	1393.4	1358.2
37.5°	1803.7	1810.4	1753.4	1545.8	1400.1	1282.8	1348.2	1385.0	1503.9	1534.0	1500.6
40°	2100.1	2098.4	2076.7	1830.5	1669.7	1508.9	1505.6	1539.1	1683.1	1730.0	1683.1
42.5°	2475.2	2471.9	2393.2	2172.1	1996.3	1803.7	1735.0	1746.7	1907.5	1984.5	1915.9
45°	2857.1	2833.6	2743.2	2552.3	2396.5	2168.8	2038.1	2038.1	2175.5	2281.0	2173.8
47.5°	3069.8	3046.3	3009.5	2904.0	2857.1	2602.5	2409.9	2386.5	2493.7	2600.8	2450.1
50°	3349.4	3349.4	3257.3	3217.1	3297.5	3118.3	2820.2	2796.8	2848.7	2934.1	2736.5
52.5°	3570.5	3530.3	3465.0	3500.2	3729.6	3647.5	3230.5	3185.3	3225.5	3247.3	2986.0
55°	3662.6	3624.1	3619.1	3748.0	4103.1	3989.2	3650.9	3610.7	3607.4	3500.2	3203.7
57.5°	3681.0	3647.5	3711.2	3937.3	4466.5	4268.9	4069.6	4039.4	3945.6	3677.7	3426.5
60°	3525.3	3542.0	3696.1	4041.1	4680.8	4511.7	4422.9	4391.1	4175.1	3828.4	3674.3
62.5°	3205.4	3245.6	3533.7	4051.2	4602.1	4610.5	4618.9	4597.1	4352.6	3965.7	3923.9
65°	2826.9	2838.7	3185.3	3912.1	4464.8	4580.4	4762.9	4761.2	4488.3	4119.8	4205.2
67.5°	2329.5	2349.6	2649.4	3443.2	4190.2	4567.0	4952.2	4947.1	4642.3	4295.7	4372.7
70°	1733.3	1758.5	2001.3	2677.9	3577.2	4399.5	5200.0	5203.4	4804.8	4429.6	4257.1
71°	1351.5	1396.7	1651.3	2274.3	3264.0	4230.3	5223.5	5253.6	4823.2	4411.2	4019.3
72.5°	663.2	716.8	1036.7	1601.0	2686.3	3851.9	5069.4	5128.0	4707.6	4181.8	3436.5
75°	172.5	182.5	309.8	654.8	1440.3	2552.3	4088.0	4237.0	3848.5	3183.6	2100.1
77.5°	108.9	112.2	145.7	254.6	539.3	969.7	2401.6	2475.2	2198.9	1612.8	740.2
80°	77.0	78.7	92.1	164.1	314.8	283.0	864.2	896.0	795.5	427.1	132.3
82.5°	46.9	46.9	67.0	105.5	194.3	154.1	227.8	242.8	214.4	118.9	43.5
85°	26.8	28.5	41.9	72.0	92.1	75.4	85.4	90.4	92.1	78.7	18.4
87.5°	21.8	23.4	36.8	60.3	50.2	36.8	36.8	38.5	40.2	46.9	8.4
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°	812.2	812.2	812.2	812.2	812.2	812.2	812.2	812.2	812.2	812.2	812.2
2.5°	808.9	808.9	810.6	808.9	808.9	808.9	810.6	810.6	810.6	813.9	815.6
5°	812.2	812.2	812.2	810.6	808.9	808.9	812.2	813.9	813.9	818.9	818.9
7.5°	820.6	820.6	817.3	813.9	810.6	805.5	807.2	808.9	807.2	808.9	808.9
10°	839.0	839.0	834.0	827.3	817.3	802.2	782.1	757.0	733.5	725.2	721.8
12.5°	869.2	867.5	857.5	845.7	824.0	772.0	696.7	607.9	534.2	514.1	507.4
15°	902.7	899.3	887.6	867.5	808.9	671.6	514.1	400.3	329.9	313.2	309.8
17.5°	937.8	932.8	916.1	875.9	740.2	499.1	331.6	251.2	212.7	209.3	211.0
20°	974.7	968.0	944.5	859.1	597.9	333.3	214.4	194.3	190.9	190.9	192.6
22.5°	1016.6	1008.2	976.4	798.8	435.4	221.1	184.2	182.5	180.9	179.2	179.2
25°	1065.1	1055.1	1006.5	690.0	299.8	180.9	175.8	170.8	167.5	164.1	162.4
27.5°	1123.7	1110.3	1030.0	556.0	206.0	169.1	165.8	157.4	150.7	144.0	144.0
30°	1182.4	1165.6	1023.3	418.7	167.5	157.4	150.7	140.7	130.6	123.9	122.3
32.5°	1244.3	1227.6	979.7	281.4	152.4	144.0	135.7	120.6	108.9	100.5	98.8
35°	1336.4	1323.0	894.3	185.9	137.3	127.3	115.6	100.5	85.4	77.0	75.4
37.5°	1473.8	1457.0	788.8	142.4	120.6	105.5	95.5	78.7	63.6	55.3	53.6
40°	1658.0	1607.7	663.2	125.6	105.5	87.1	73.7	56.9	45.2	40.2	40.2
42.5°	1872.3	1753.4	527.5	113.9	93.8	72.0	53.6	38.5	31.8	30.1	30.1
45°	2100.1	1889.1	391.9	105.5	82.1	56.9	38.5	26.8	23.4	21.8	21.8
47.5°	2334.6	1999.6	273.0	95.5	68.7	43.5	26.8	20.1	16.7	15.1	15.1
50°	2554.0	2071.6	192.6	85.4	58.6	31.8	20.1	15.1	11.7	11.7	11.7
52.5°	2706.4	2064.9	139.0	73.7	45.2	21.8	13.4	10.0	10.0	10.0	10.0
55°	2840.3	2039.8	108.9	63.6	35.2	15.1	10.0	8.4	8.4	6.7	6.7
57.5°	2954.2	1999.6	92.1	51.9	25.1	11.7	6.7	6.7	5.0	5.0	5.0
60°	3051.3	1949.4	77.0	43.5	16.7	8.4	5.0	3.3	3.3	1.7	3.3
62.5°	3183.6	1917.6	67.0	33.5	11.7	5.0	3.3	1.7	1.7	0.0	0.0
65°	3280.8	1857.3	56.9	23.4	6.7	3.3	1.7	1.7	0.0	0.0	0.0
67.5°	3284.1	1748.4	41.9	13.4	5.0	3.3	1.7	0.0	0.0	0.0	0.0
70°	3019.5	1490.5	26.8	6.7	3.3	1.7	1.7	0.0	0.0	0.0	0.0
71°	2776.7	1319.7	21.8	5.0	3.3	1.7	0.0	0.0	0.0	0.0	0.0
72.5°	2287.7	969.7	16.7	5.0	1.7	1.7	0.0	0.0	0.0	0.0	0.0
75°	1261.1	351.7	8.4	3.3	1.7	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	403.6	107.2	5.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	68.7	16.7	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	23.4	6.7	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	6.7	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.3	1.7	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)