

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: P231080

Luminaire Tested: **ARCH-M-AF48-90-D-U-T2R-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231080
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29623)
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-T2R-7030-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 600mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8882 lumens
Efficiency: N/A
Efficacy: 96.5 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 92
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

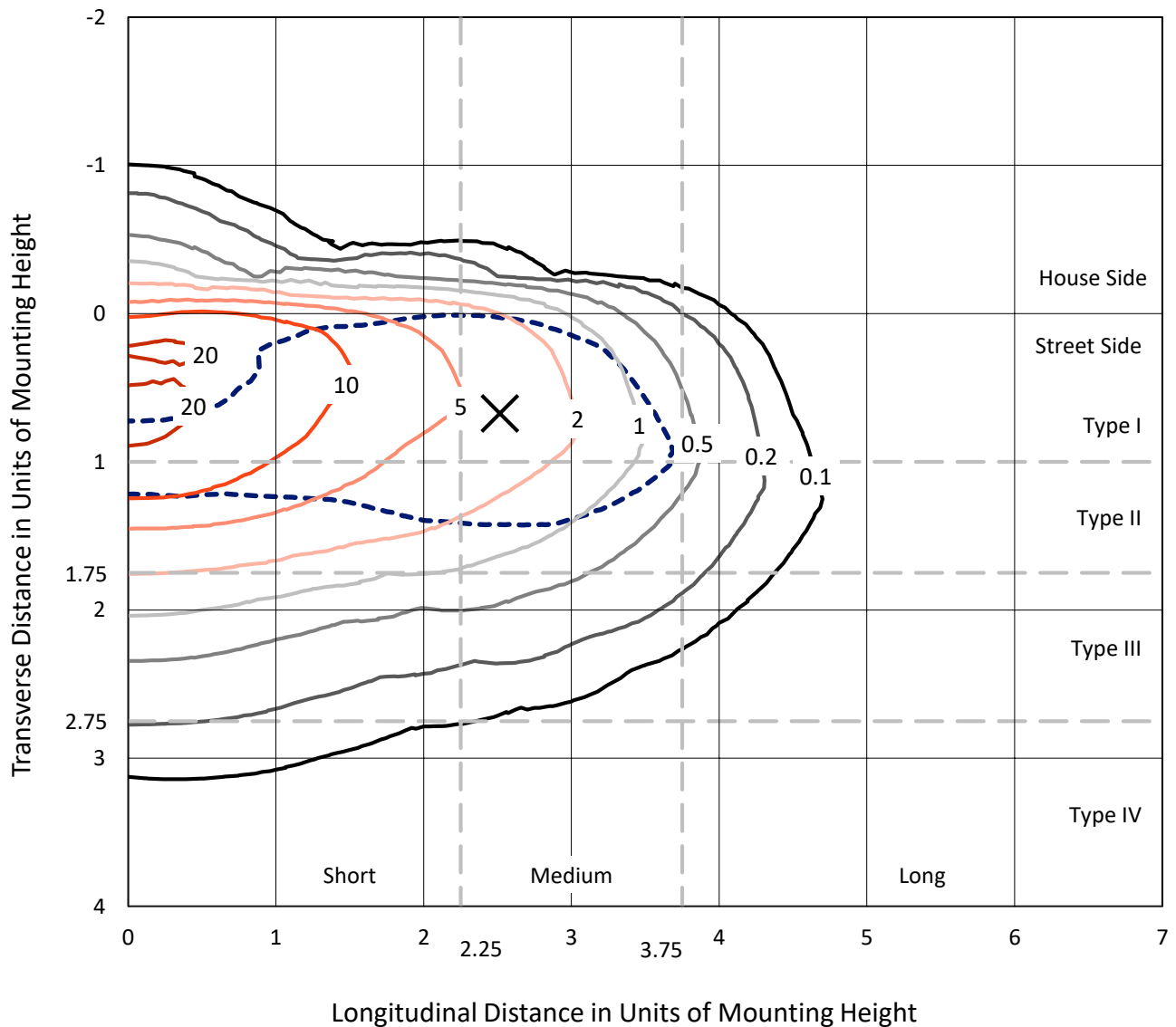


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

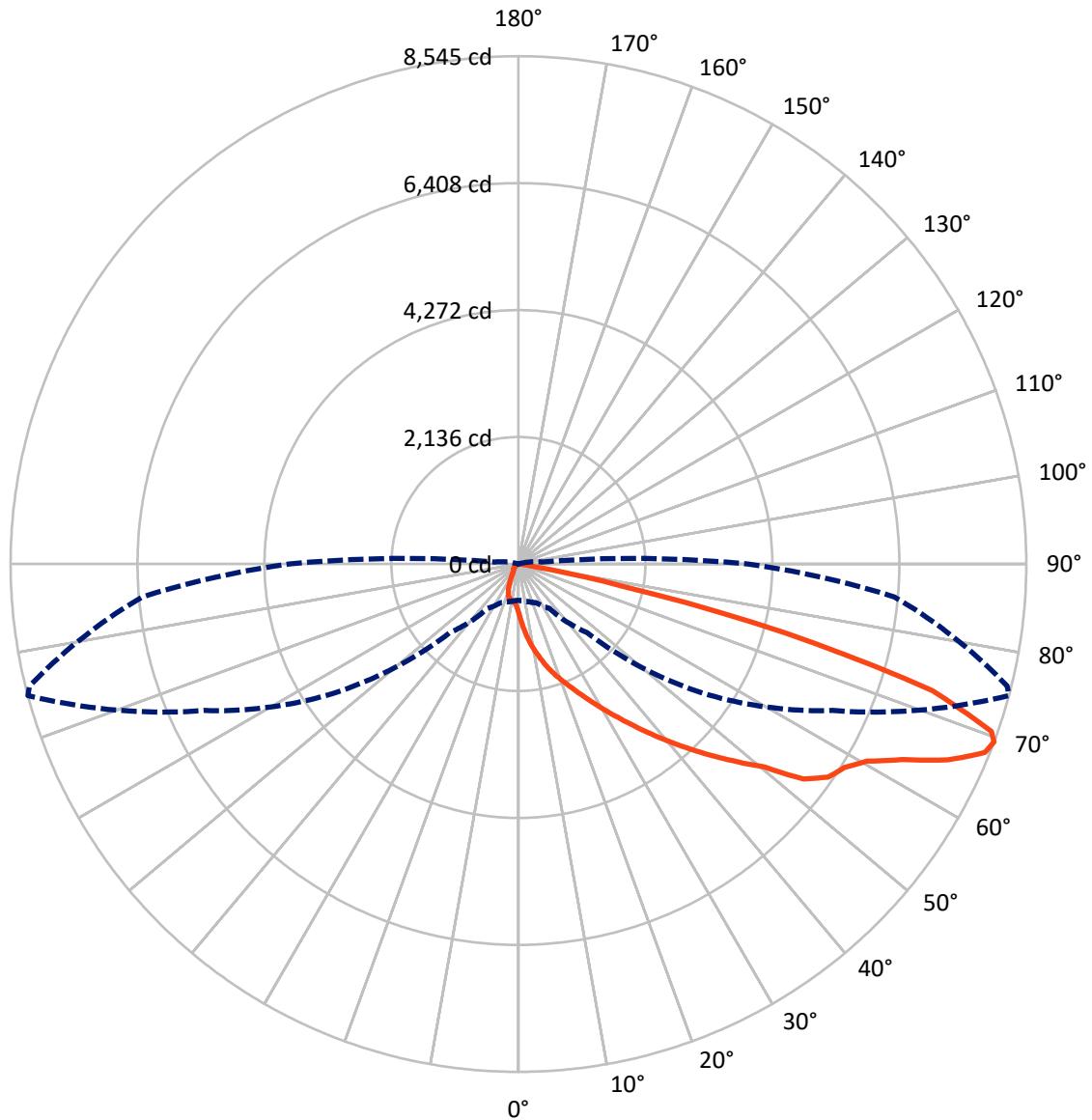


Based on 10 foot mounting height. Maximum calculated value = 22.6 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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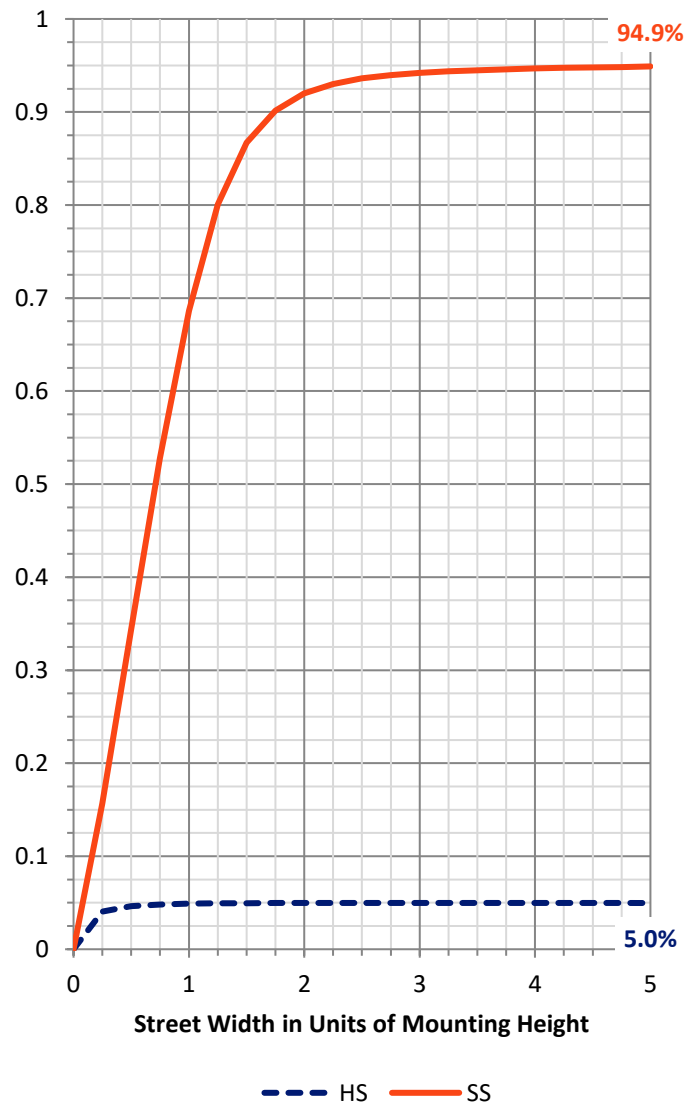
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	443.2	0.0	443.2
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	8438.8	0.0	8438.8
	% Fixture	95.0	0.0	95.0
Total	Lumens	8882.0	0.0	8882.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.4	1.1
10°-20°	344.5	3.9
20°-30°	657.7	7.4
30°-40°	1179.9	13.3
40°-50°	1807.6	20.4
50°-60°	2100.9	23.7
60°-70°	1860.4	20.9
70°-80°	802.5	9.0
80°-90°	32.1	0.4
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°	8882.0	100.0
0°-180°	8882.0	100.0

Coefficient of Utilization



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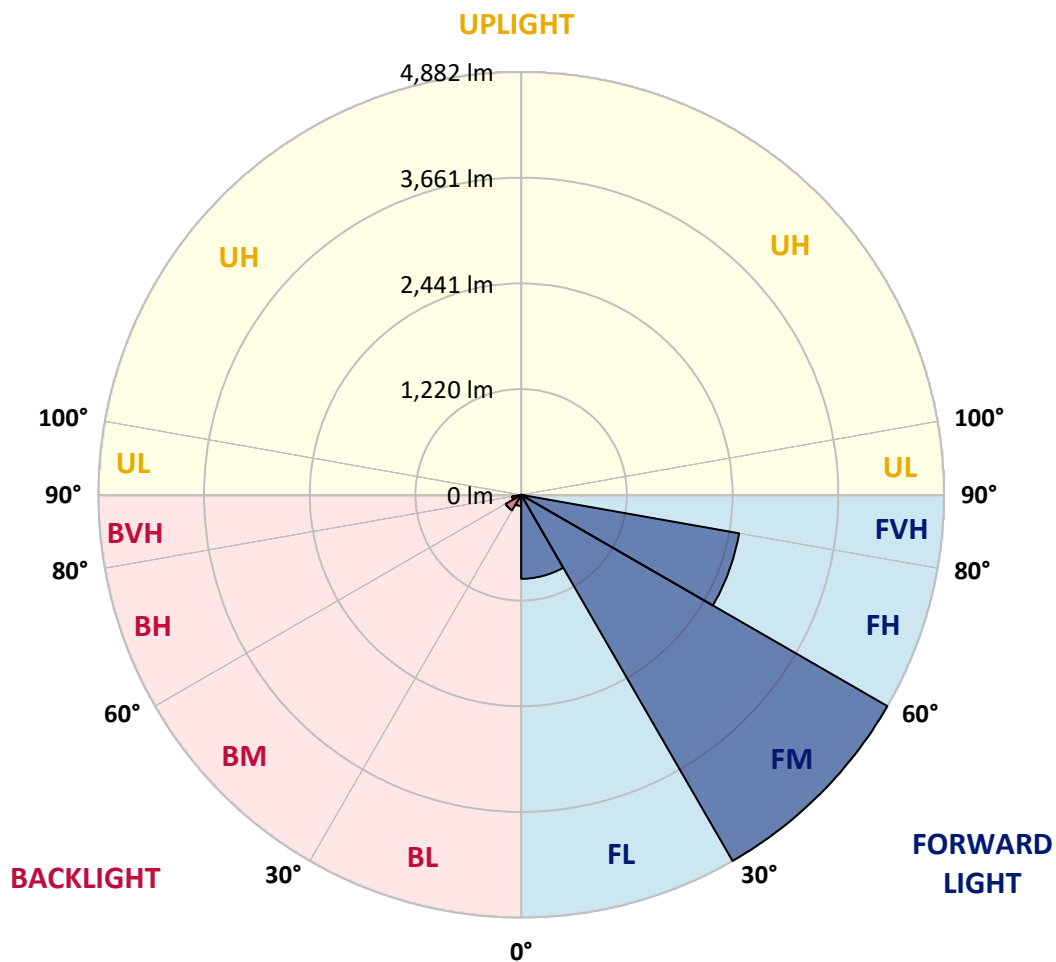
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	969.9	10.9			
FM	(30°-60°)	4881.8	55.0			
FH	(60°-80°)	2555.5	28.8			G2/5000
FVH	(80°-90°)	31.7	0.4			G1/100
BL	(0°-30°)	128.7	1.4	B1/500		
BM	(30°-60°)	206.6	2.3	B0/220		
BH	(60°-80°)	107.4	1.2	B0/110		G0/110
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 II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	826.5	826.5	826.5	826.5	826.5	826.5	826.5	826.5	826.5	826.5	826.5
2.5°	1361.5	1348.0	1334.6	1319.3	1284.8	1225.3	1150.5	1070.0	970.3	953.0	872.5
5°	1652.9	1647.2	1633.8	1612.7	1574.3	1509.1	1424.7	1305.9	1139.0	1110.3	939.6
7.5°	1858.1	1854.3	1842.8	1817.8	1783.3	1718.1	1629.9	1501.4	1307.8	1275.2	1024.0
10°	2042.2	2040.3	2030.7	2007.7	1973.2	1902.2	1808.3	1674.0	1468.8	1432.4	1121.8
12.5°	2209.0	2210.9	2207.1	2195.6	2170.7	2103.6	1996.2	1850.4	1624.2	1583.9	1238.7
15°	2306.8	2312.6	2327.9	2350.9	2358.6	2304.9	2193.7	2032.6	1783.3	1748.8	1373.0
17.5°	2274.2	2280.0	2327.9	2406.5	2481.3	2489.0	2389.3	2205.2	1940.6	1906.1	1505.3
20°	2195.6	2203.3	2253.1	2360.5	2506.2	2607.9	2567.6	2393.1	2090.1	2048.0	1631.8
22.5°	2283.8	2283.8	2299.2	2364.3	2496.7	2655.8	2709.5	2581.0	2243.5	2191.8	1758.4
25°	2586.8	2581.0	2548.4	2521.6	2563.8	2705.7	2816.9	2772.8	2423.8	2364.3	1892.6
27.5°	2970.3	2997.1	2935.8	2838.0	2742.1	2803.5	2912.8	2962.6	2623.2	2561.9	2030.7
30°	3399.8	3411.3	3338.5	3208.1	3039.3	2979.9	3025.9	3125.6	2839.9	2772.8	2174.5
32.5°	3787.2	3777.6	3716.2	3580.1	3371.1	3242.6	3171.6	3256.0	3075.8	2999.1	2322.2
35°	4130.4	4138.1	4063.3	3906.1	3700.9	3564.7	3396.0	3403.7	3340.4	3252.2	2492.8
37.5°	4439.1	4425.7	4354.8	4197.5	4011.5	3863.9	3685.5	3557.1	3629.9	3537.9	2684.6
40°	4690.3	4676.9	4602.1	4448.7	4274.2	4153.4	4013.4	3762.2	3934.8	3829.4	2889.8
42.5°	4889.8	4874.4	4811.1	4663.5	4494.8	4387.4	4320.3	4015.4	4260.8	4155.3	3119.9
45°	4987.6	4974.1	4935.8	4824.6	4676.9	4583.0	4615.6	4306.8	4609.8	4521.6	3373.0
47.5°	4872.5	4866.8	4910.9	4891.7	4807.3	4757.5	4870.6	4625.1	4976.1	4889.8	3664.5
50°	4523.5	4533.1	4661.6	4820.7	4861.0	4920.4	5079.6	4960.7	5369.2	5277.1	4000.0
52.5°	3662.5	3727.7	4115.1	4498.6	4795.8	5020.2	5325.1	5440.1	6009.6	5919.5	4523.5
55°	2734.4	2761.3	3183.1	3838.9	4533.1	5012.5	5507.2	5722.0	6326.0	6234.0	4661.6
57.5°	2168.8	2178.3	2387.4	3056.6	3992.4	4839.9	5603.1	5823.6	6464.1	6387.4	4866.8
60°	1702.8	1714.3	1865.8	2326.0	3231.1	4373.9	5465.0	5911.8	6734.5	6673.1	5225.3
62.5°	1325.0	1336.5	1428.6	1699.0	2423.8	3656.8	5187.0	6053.7	7248.4	7219.6	5812.1
65°	1025.9	1029.7	1093.0	1219.6	1712.4	2880.2	4847.6	6186.0	7942.5	7917.6	6287.7
67.5°	757.4	763.2	807.3	885.9	1156.3	2069.0	4291.5	6084.4	8466.0	8393.1	6460.2
69°	611.7	617.5	655.8	719.1	912.8	1629.9	3783.3	5833.2	8544.6	8475.6	6350.9
70°	523.5	527.3	565.7	619.4	778.5	1384.5	3380.7	5616.5	8441.1	8374.0	6101.7
72.5°	335.6	354.7	393.1	427.6	515.8	916.6	2281.9	4657.7	7282.9	7167.8	4778.6
75°	186.0	191.8	260.8	303.0	343.2	596.4	1269.4	2905.1	4632.8	4552.3	2556.1
77.5°	153.4	157.2	184.1	230.1	230.1	333.7	479.4	1144.8	1762.2	1589.7	692.2
80°	107.4	111.2	140.0	151.5	164.9	187.9	155.3	251.2	272.3	241.6	103.5
82.5°	74.8	78.6	95.9	124.6	132.3	88.2	57.5	74.8	78.6	78.6	40.3
85°	13.4	19.2	70.9	103.5	78.6	26.8	32.6	26.8	24.9	26.8	9.6
87.5°	0.0	0.0	44.1	49.9	42.2	11.5	13.4	9.6	5.8	7.7	3.8
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°	826.5	826.5	826.5	826.5	826.5	826.5	826.5	826.5	826.5	826.5	826.5
2.5°	832.2	792.0	722.9	673.1	630.9	598.3	584.9	563.8	548.4	556.1	546.5
5°	855.2	784.3	673.1	602.1	552.3	510.1	475.6	448.7	427.6	423.8	419.9
7.5°	891.7	790.0	644.3	556.1	481.3	416.1	362.4	322.1	291.5	291.5	280.0
10°	941.5	805.4	627.0	510.1	398.9	310.6	257.0	218.6	203.3	201.3	197.5
12.5°	1010.6	834.1	613.6	450.6	310.6	226.3	193.7	180.3	174.5	172.6	170.7
15°	1104.5	876.3	598.3	377.8	235.9	186.0	172.6	161.1	155.3	153.4	151.5
17.5°	1194.6	914.7	565.7	303.0	191.8	168.7	153.4	143.8	136.1	134.2	134.2
20°	1279.0	947.3	510.1	235.9	172.6	151.5	136.1	124.6	117.0	115.1	115.1
22.5°	1367.2	974.1	441.0	191.8	157.2	134.2	118.9	107.4	99.7	97.8	95.9
25°	1461.2	993.3	362.4	170.7	141.9	118.9	101.6	92.0	86.3	84.4	82.5
27.5°	1562.8	1001.0	287.6	155.3	124.6	103.5	88.2	78.6	74.8	72.9	72.9
30°	1654.9	993.3	222.4	138.1	109.3	90.1	76.7	69.0	65.2	63.3	63.3
32.5°	1750.7	974.1	178.3	122.7	95.9	76.7	65.2	59.4	57.5	55.6	55.6
35°	1852.4	949.2	153.4	109.3	82.5	67.1	57.5	53.7	51.8	49.9	49.9
37.5°	1971.2	918.5	140.0	97.8	72.9	59.4	49.9	47.9	46.0	46.0	46.0
40°	2105.5	880.2	130.4	88.2	65.2	51.8	44.1	42.2	40.3	40.3	40.3
42.5°	2247.4	836.1	120.8	78.6	57.5	44.1	38.4	38.4	36.4	36.4	34.5
45°	2406.5	792.0	111.2	69.0	49.9	38.4	32.6	30.7	30.7	28.8	28.8
47.5°	2594.5	751.7	101.6	61.4	44.1	32.6	28.8	26.8	24.9	23.0	23.0
50°	2859.1	747.8	90.1	53.7	40.3	26.8	23.0	21.1	19.2	17.3	17.3
52.5°	3121.8	713.3	76.7	44.1	32.6	23.0	17.3	15.3	13.4	13.4	11.5
55°	3181.2	655.8	67.1	38.4	24.9	17.3	13.4	9.6	9.6	7.7	7.7
57.5°	3311.6	629.0	57.5	30.7	19.2	13.4	7.7	5.8	5.8	5.8	5.8
60°	3568.6	621.3	49.9	26.8	13.4	9.6	5.8	3.8	3.8	1.9	1.9
62.5°	3923.3	613.6	42.2	23.0	9.6	5.8	3.8	1.9	0.0	0.0	0.0
65°	4118.9	561.8	34.5	17.3	7.7	5.8	1.9	0.0	0.0	0.0	0.0
67.5°	4067.1	464.0	30.7	11.5	5.8	3.8	1.9	0.0	0.0	0.0	0.0
69°	3850.5	391.2	24.9	9.6	5.8	3.8	1.9	0.0	0.0	0.0	0.0
70°	3589.7	337.5	23.0	7.7	3.8	1.9	1.9	0.0	0.0	0.0	0.0
72.5°	2548.4	176.4	15.3	5.8	3.8	1.9	0.0	0.0	0.0	0.0	0.0
75°	1190.8	78.6	9.6	3.8	1.9	1.9	0.0	0.0	0.0	0.0	0.0
77.5°	262.7	36.4	5.8	3.8	1.9	0.0	0.0	0.0	0.0	0.0	0.0
80°	49.9	13.4	3.8	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	17.3	5.8	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	5.8	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.9	0.0	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)