

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: P214818

Luminaire Tested: **ARCH-AF24-90-D-U-T3-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214818
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-AF24-90-D-U-T3-7050-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 1180mA LIGHT ENGINE 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: 7041 lumens
Efficiency: N/A
Efficacy: 74.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type III - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 94
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

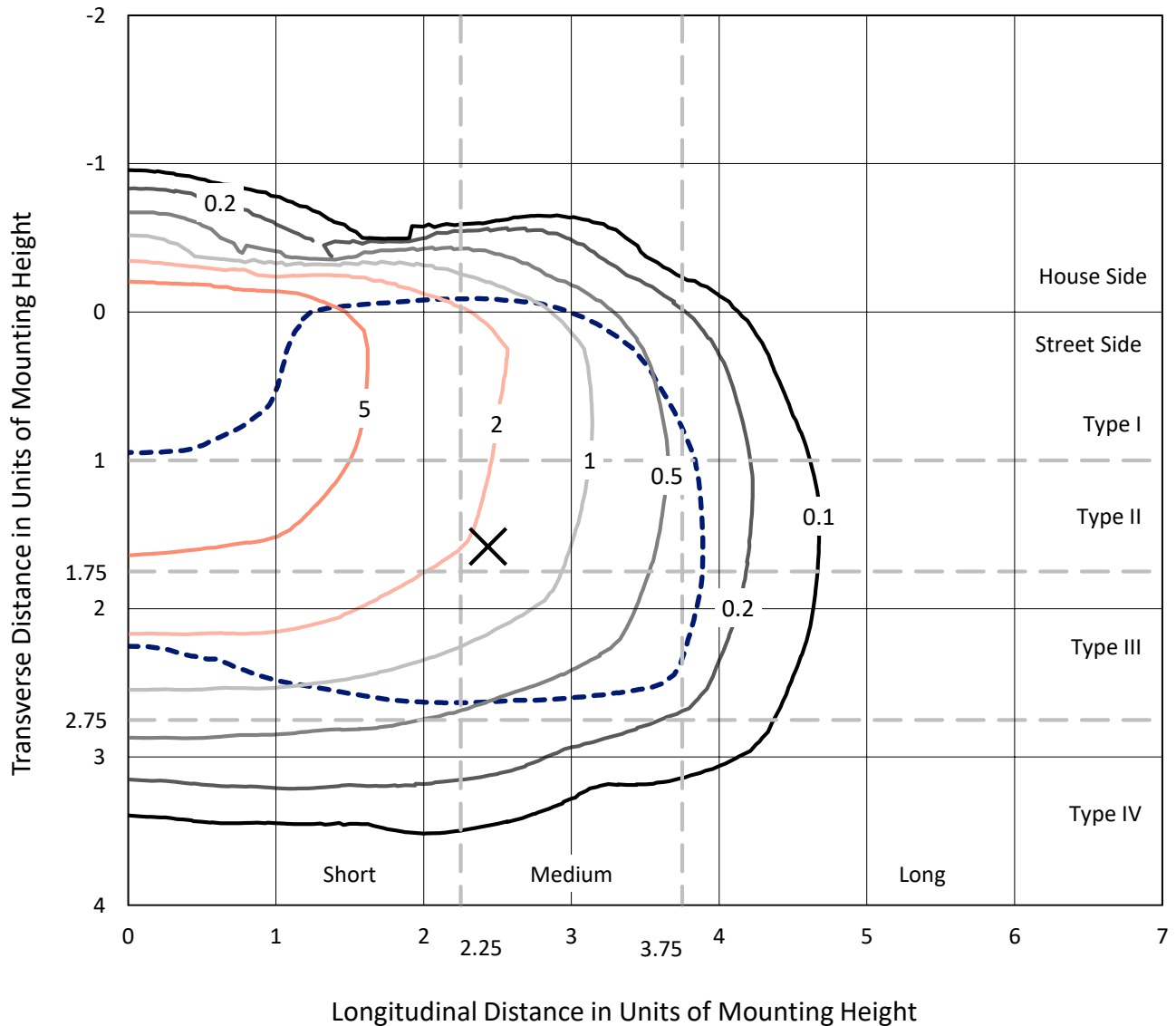


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

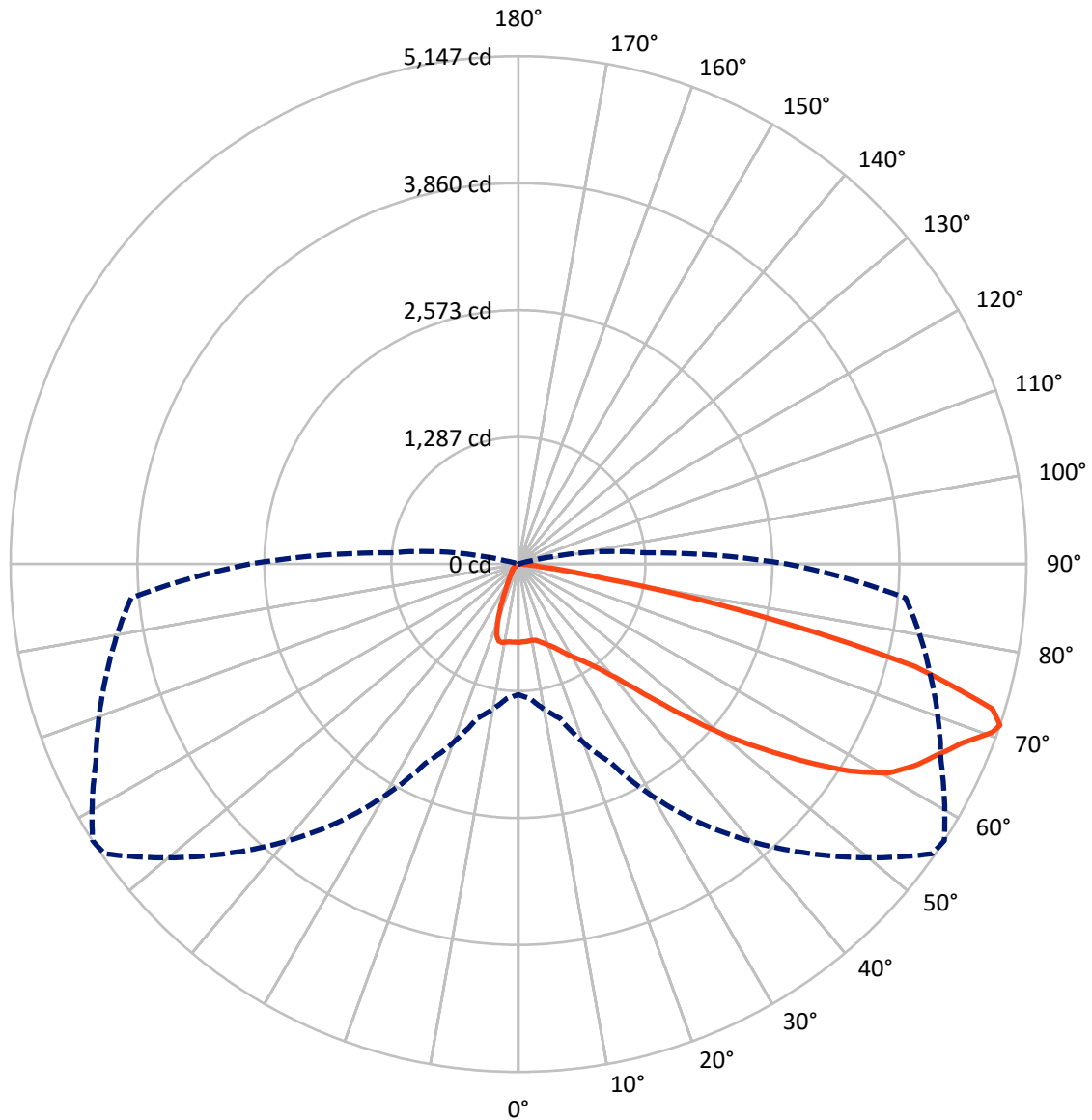


Based on 10 foot mounting height. Maximum calculated value = 9.9 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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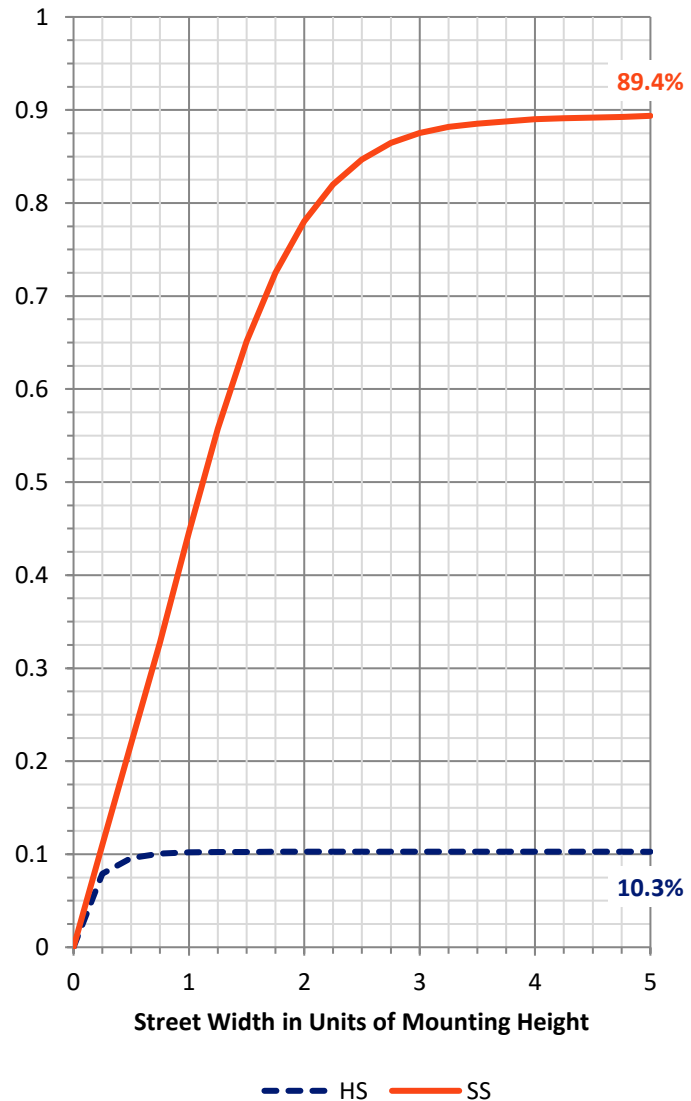
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	729.7	0.0	729.7
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	6311.3	0.0	6311.3
	% Fixture	89.6	0.0	89.6
Total	Lumens	7041.0	0.0	7041.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.7	1.1
10°-20°	199.8	2.8
20°-30°	311.7	4.4
30°-40°	526.8	7.5
40°-50°	1023.2	14.5
50°-60°	1718.3	24.4
60°-70°	2050.7	29.1
70°-80°	1080.7	15.3
80°-90°	54.9	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°	7041.0	100.0
0°-180°	7041.0	100.0

Coefficient of Utilization



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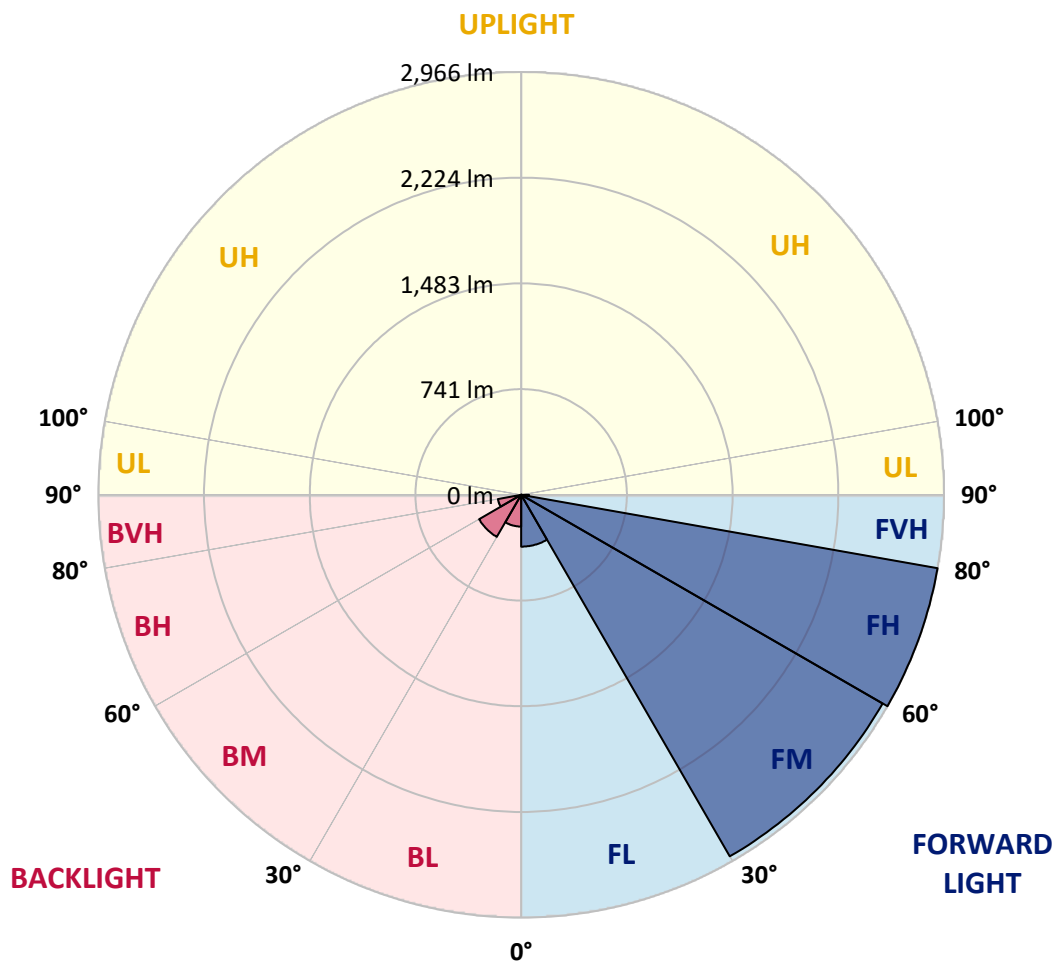
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	363.5	5.2			
FM	(30°-60°)	2927.7	41.6			
FH	(60°-80°)	2965.7	42.1			G2/5000
FVH	(80°-90°)	54.4	0.8			G1/100
BL	(0°-30°)	222.7	3.2	B1/500		
BM	(30°-60°)	340.7	4.8	B1/1000		
BH	(60°-80°)	165.7	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°	795.7	795.7	795.7	795.7	795.7	795.7	795.7	795.7	795.7	795.7	795.7
2.5°	784.3	784.3	784.3	785.9	787.5	787.5	790.8	789.2	789.2	789.2	792.5
5°	762.9	764.6	766.2	769.5	776.1	781.0	789.2	789.2	790.8	794.1	795.7
7.5°	733.4	735.0	740.0	746.5	759.6	771.1	784.3	787.5	792.5	800.7	803.9
10°	715.3	718.6	725.2	733.4	748.2	762.9	779.3	784.3	799.0	813.8	822.0
12.5°	710.4	712.1	718.6	731.8	749.8	767.8	789.2	794.1	815.4	838.4	851.5
15°	718.6	720.3	723.5	738.3	759.6	782.6	810.5	817.1	843.3	869.6	886.0
17.5°	733.4	733.4	736.7	749.8	772.8	799.0	835.1	845.0	874.5	904.0	922.1
20°	743.2	743.2	748.2	761.3	787.5	822.0	864.6	877.8	910.6	943.4	959.8
22.5°	753.1	754.7	759.6	774.4	803.9	851.5	900.7	913.9	951.6	986.1	1002.5
25°	781.0	779.3	781.0	794.1	828.6	887.6	950.0	966.4	1005.7	1043.5	1051.7
27.5°	858.1	854.8	833.5	825.3	851.5	925.4	1012.3	1028.7	1074.7	1112.4	1112.4
30°	1035.3	1028.7	976.2	908.9	887.6	959.8	1071.4	1094.3	1153.4	1186.2	1176.4
32.5°	1260.1	1245.3	1178.0	1063.2	977.9	1005.7	1133.7	1160.0	1235.4	1263.3	1242.0
35°	1506.2	1504.5	1420.8	1273.2	1151.8	1100.9	1214.1	1245.3	1340.5	1365.1	1330.6
37.5°	1767.0	1773.6	1717.8	1514.4	1371.6	1256.8	1320.8	1356.9	1473.3	1502.9	1470.1
40°	2057.4	2055.8	2034.5	1793.3	1635.8	1478.3	1475.0	1507.8	1648.9	1694.8	1648.9
42.5°	2425.0	2421.7	2344.6	2128.0	1955.7	1767.0	1699.8	1711.3	1868.8	1944.2	1877.0
45°	2799.0	2776.1	2687.5	2500.4	2347.8	2124.7	1996.7	1996.7	2131.3	2234.6	2129.6
47.5°	3007.4	2984.4	2948.3	2845.0	2799.0	2549.6	2361.0	2338.0	2443.0	2548.0	2400.3
50°	3281.4	3281.4	3191.2	3151.8	3230.5	3055.0	2762.9	2740.0	2790.8	2874.5	2680.9
52.5°	3498.0	3458.6	3394.6	3429.1	3653.8	3573.4	3164.9	3120.6	3160.0	3181.3	2925.4
55°	3588.2	3550.5	3545.6	3671.9	4019.7	3908.1	3576.7	3537.4	3534.1	3429.1	3138.7
57.5°	3606.3	3573.4	3635.8	3857.3	4375.7	4182.1	3986.9	3957.4	3865.5	3603.0	3356.9
60°	3453.7	3470.1	3621.0	3959.0	4585.8	4420.0	4333.1	4301.9	4090.3	3750.6	3599.7
62.5°	3140.3	3179.7	3461.9	3968.9	4508.6	4516.8	4525.1	4503.7	4264.2	3885.2	3844.2
65°	2769.5	2781.0	3120.6	3832.7	4374.1	4487.3	4666.2	4664.5	4397.1	4036.1	4119.8
67.5°	2282.2	2301.9	2595.6	3373.3	4105.0	4474.2	4851.6	4846.6	4548.0	4208.4	4283.9
70°	1698.1	1722.7	1960.6	2623.5	3504.5	4310.1	5094.4	5097.7	4707.2	4339.7	4170.7
71°	1324.0	1368.3	1617.7	2228.1	3197.7	4144.4	5117.3	5146.9	4725.2	4321.6	3937.7
72.5°	649.7	702.2	1015.6	1568.5	2631.7	3773.6	4966.4	5023.8	4612.0	4096.8	3366.7
75°	169.0	178.8	303.5	641.5	1411.0	2500.4	4004.9	4151.0	3770.3	3119.0	2057.4
77.5°	106.6	109.9	142.7	249.4	528.3	950.0	2352.8	2425.0	2154.2	1580.0	725.2
80°	75.5	77.1	90.2	160.8	308.5	277.3	846.6	877.8	779.3	418.4	129.6
82.5°	45.9	45.9	65.6	103.4	190.3	150.9	223.1	237.9	210.0	116.5	42.7
85°	26.3	27.9	41.0	70.6	90.2	73.8	83.7	88.6	90.2	77.1	18.0
87.5°	21.3	23.0	36.1	59.1	49.2	36.1	36.1	37.7	39.4	45.9	8.2
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°	795.7	795.7	795.7	795.7	795.7	795.7	795.7	795.7	795.7	795.7	795.7
2.5°	792.5	792.5	794.1	792.5	792.5	792.5	794.1	794.1	794.1	797.4	799.0
5°	795.7	795.7	795.7	794.1	792.5	792.5	795.7	797.4	797.4	802.3	802.3
7.5°	803.9	803.9	800.7	797.4	794.1	789.2	790.8	792.5	790.8	792.5	792.5
10°	822.0	822.0	817.1	810.5	800.7	785.9	766.2	741.6	718.6	710.4	707.1
12.5°	851.5	849.9	840.0	828.6	807.2	756.4	682.5	595.6	523.4	503.7	497.1
15°	884.3	881.1	869.6	849.9	792.5	657.9	503.7	392.1	323.2	306.8	303.5
17.5°	918.8	913.9	897.5	858.1	725.2	488.9	324.9	246.1	208.4	205.1	206.7
20°	954.9	948.3	925.4	841.7	585.7	326.5	210.0	190.3	187.0	187.0	188.7
22.5°	995.9	987.7	956.5	782.6	426.6	216.6	180.5	178.8	177.2	175.6	175.6
25°	1043.5	1033.6	986.1	676.0	293.7	177.2	172.3	167.4	164.1	160.8	159.1
27.5°	1100.9	1087.8	1009.0	544.7	201.8	165.7	162.4	154.2	147.7	141.1	141.1
30°	1158.3	1141.9	1002.5	410.2	164.1	154.2	147.7	137.8	128.0	121.4	119.8
32.5°	1219.0	1202.6	959.8	275.6	149.3	141.1	132.9	118.1	106.6	98.4	96.8
35°	1309.3	1296.2	876.1	182.1	134.5	124.7	113.2	98.4	83.7	75.5	73.8
37.5°	1443.8	1427.4	772.8	139.5	118.1	103.4	93.5	77.1	62.3	54.1	52.5
40°	1624.3	1575.1	649.7	123.1	103.4	85.3	72.2	55.8	44.3	39.4	39.4
42.5°	1834.3	1717.8	516.8	111.6	91.9	70.6	52.5	37.7	31.2	29.5	29.5
45°	2057.4	1850.7	383.9	103.4	80.4	55.8	37.7	26.3	23.0	21.3	21.3
47.5°	2287.1	1959.0	267.4	93.5	67.3	42.7	26.3	19.7	16.4	14.8	14.8
50°	2502.1	2029.5	188.7	83.7	57.4	31.2	19.7	14.8	11.5	11.5	11.5
52.5°	2651.4	2023.0	136.2	72.2	44.3	21.3	13.1	9.8	9.8	9.8	9.8
55°	2782.6	1998.4	106.6	62.3	34.5	14.8	9.8	8.2	8.2	6.6	6.6
57.5°	2894.2	1959.0	90.2	50.9	24.6	11.5	6.6	6.6	4.9	4.9	4.9
60°	2989.4	1909.8	75.5	42.7	16.4	8.2	4.9	3.3	3.3	1.6	3.3
62.5°	3119.0	1878.6	65.6	32.8	11.5	4.9	3.3	1.6	1.6	0.0	0.0
65°	3214.1	1819.5	55.8	23.0	6.6	3.3	1.6	1.6	0.0	0.0	0.0
67.5°	3217.4	1712.9	41.0	13.1	4.9	3.3	1.6	0.0	0.0	0.0	0.0
70°	2958.2	1460.2	26.3	6.6	3.3	1.6	1.6	0.0	0.0	0.0	0.0
71°	2720.3	1292.9	21.3	4.9	3.3	1.6	0.0	0.0	0.0	0.0	0.0
72.5°	2241.2	950.0	16.4	4.9	1.6	1.6	0.0	0.0	0.0	0.0	0.0
75°	1235.4	344.5	8.2	3.3	1.6	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	395.4	105.0	4.9	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	67.3	16.4	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	23.0	6.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	6.6	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.3	1.6	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)