

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: P214945

Luminaire Tested: **ARCH-AF24-100-D-U-T4W-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214945
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-AF24-100-D-U-T4W-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 1200mA LIGHT ENGINE 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: 7145.3 lumens
Efficiency: N/A
Efficacy: 74.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 96
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

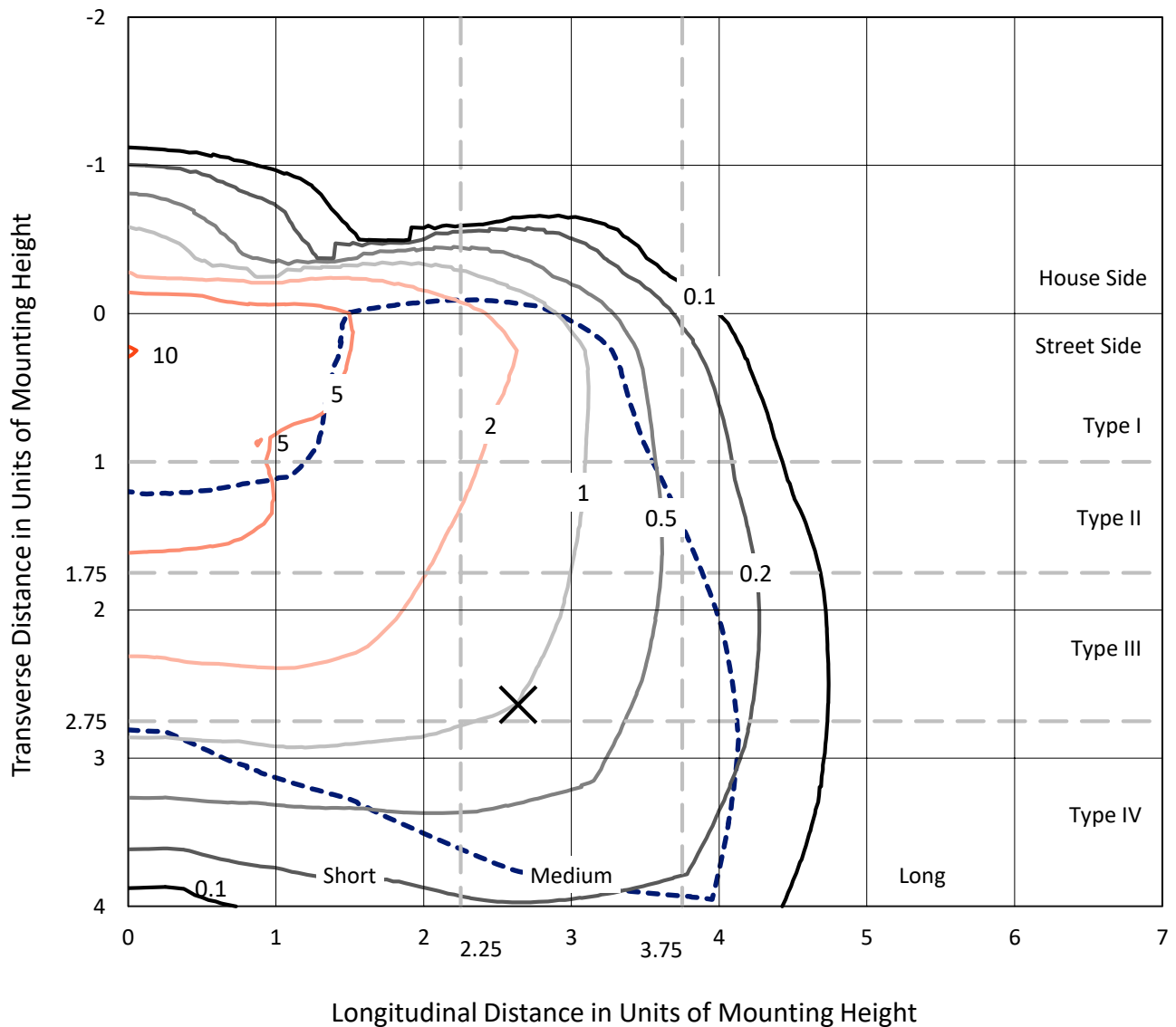


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

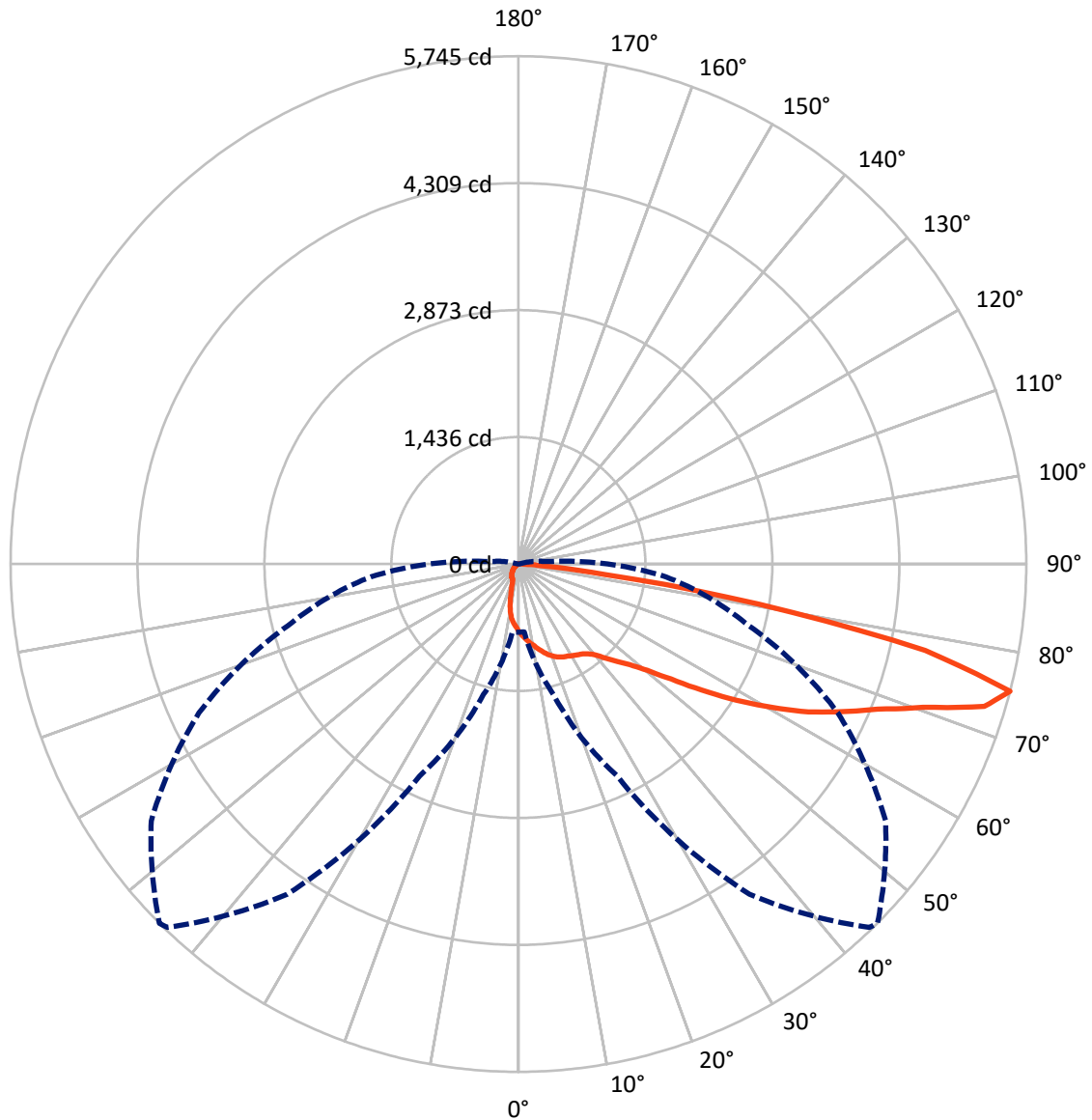


Based on 10 foot mounting height. Maximum calculated value = 10.2 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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

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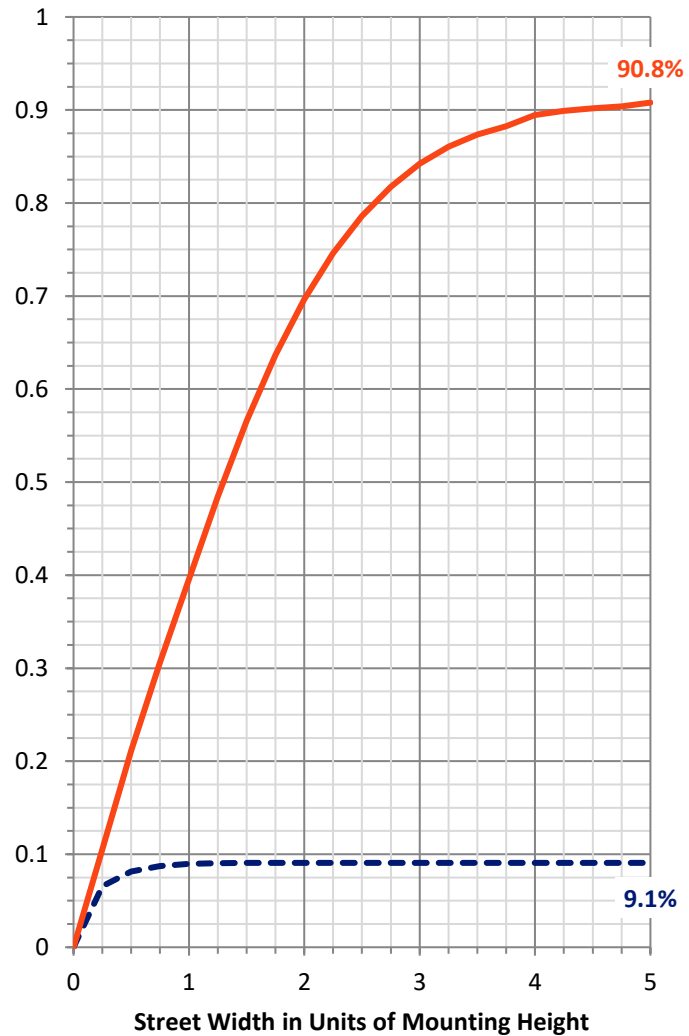
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	653.6	0.0	653.6
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	6491.7	0.0	6491.7
	% Fixture	90.9	0.0	90.9
Total	Lumens	7145.3	0.0	7145.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.1	1.0
10°-20°	204.3	2.9
20°-30°	338.4	4.7
30°-40°	489.8	6.9
40°-50°	802.0	11.2
50°-60°	1428.9	20.0
60°-70°	2100.7	29.4
70°-80°	1584.8	22.2
80°-90°	124.3	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°	7145.3	100.0
0°-180°	7145.3	100.0



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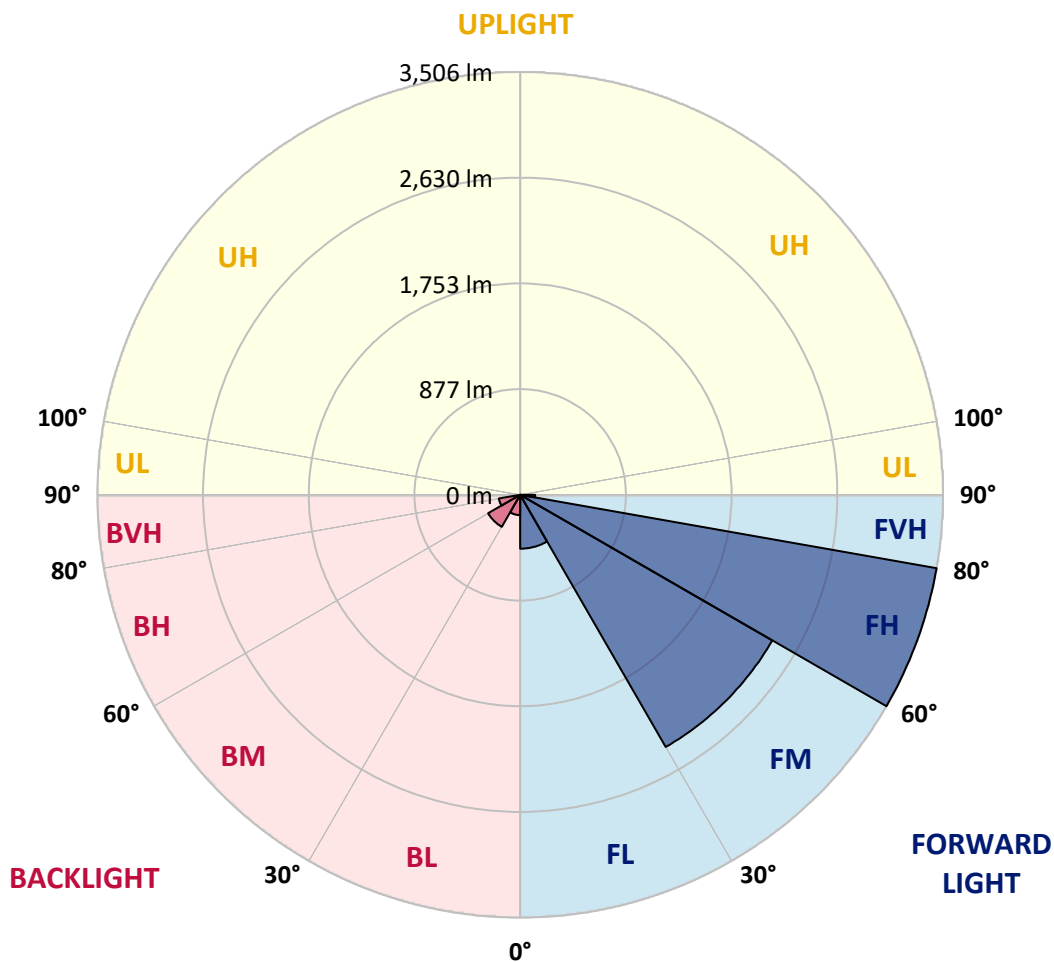
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	446.9	6.3			
FM	(30°-60°)	2414.4	33.8			
FH	(60°-80°)	3506.5	49.1			G2/5000
FVH	(80°-90°)	124.0	1.7			G2/225
BL	(0°-30°)	167.9	2.4	B1/500		
BM	(30°-60°)	306.3	4.3	B1/1000		
BH	(60°-80°)	179.0	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°	764.2	764.2	764.2	764.2	764.2	764.2	764.2	764.2	764.2	764.2	764.2
2.5°	830.1	830.1	828.5	826.7	818.4	809.9	808.2	803.1	787.9	777.7	767.6
5°	899.5	901.2	897.8	889.4	870.7	852.1	850.5	837.0	808.2	787.9	765.9
7.5°	965.5	968.8	960.3	945.1	923.2	896.1	894.5	869.1	831.9	803.1	771.0
10°	1021.2	1021.2	1009.3	990.8	967.1	938.4	935.0	906.2	864.0	828.5	786.2
12.5°	1082.1	1080.4	1063.5	1038.1	1011.1	984.1	982.3	946.8	906.2	860.6	808.2
15°	1137.9	1134.6	1112.6	1088.8	1060.1	1031.3	1029.7	994.2	951.9	897.8	840.4
17.5°	1168.3	1166.7	1146.3	1122.7	1099.0	1077.1	1075.3	1038.1	992.5	936.7	872.5
20°	1173.4	1175.1	1158.2	1137.9	1124.3	1112.6	1112.6	1078.7	1029.7	970.5	906.2
22.5°	1175.1	1180.2	1168.3	1141.3	1137.9	1139.6	1142.9	1115.9	1065.2	1009.3	941.7
25°	1186.9	1193.7	1185.2	1153.1	1149.7	1161.6	1164.9	1153.1	1107.4	1051.7	982.3
27.5°	1210.6	1217.3	1210.6	1170.1	1164.9	1176.8	1180.2	1186.9	1153.1	1092.2	1024.6
30°	1257.9	1259.7	1244.4	1193.7	1183.6	1198.8	1203.8	1222.4	1195.4	1131.1	1065.2
32.5°	1340.8	1323.9	1278.2	1210.6	1202.2	1219.1	1224.2	1244.4	1234.3	1168.3	1107.4
35°	1509.9	1421.9	1317.2	1234.3	1225.8	1242.7	1249.4	1278.2	1283.3	1220.8	1159.8
37.5°	1508.1	1428.7	1408.4	1279.9	1268.0	1279.9	1288.4	1323.9	1344.2	1290.0	1235.9
40°	1614.7	1580.9	1580.9	1366.2	1327.3	1344.2	1352.6	1388.1	1423.6	1381.4	1325.5
42.5°	1949.4	1927.4	1903.8	1531.9	1410.1	1457.4	1462.5	1484.5	1526.8	1513.3	1447.3
45°	2323.1	2302.9	2211.5	1812.5	1552.1	1560.6	1572.4	1608.0	1668.8	1694.1	1616.4
47.5°	2615.6	2595.3	2517.6	2150.7	1773.6	1699.2	1699.2	1768.6	1863.2	1927.4	1853.1
50°	2850.7	2826.9	2779.7	2510.8	2137.1	1898.7	1888.6	1969.8	2110.0	2209.9	2159.1
52.5°	3078.9	3009.6	2980.9	2882.8	2548.0	2187.9	2160.8	2218.3	2412.7	2536.2	2493.9
55°	3231.1	3221.0	3190.5	3224.3	2979.1	2539.6	2515.8	2527.7	2771.2	2854.0	2801.7
57.5°	3373.1	3371.4	3439.1	3596.3	3449.2	2941.9	2904.8	2886.2	3117.7	3097.5	3143.1
60°	3548.9	3518.5	3675.8	3900.6	3880.4	3334.2	3292.0	3254.7	3383.2	3325.7	3552.3
62.5°	3557.4	3548.9	3868.5	4191.4	4308.1	3733.3	3684.2	3550.7	3614.9	3548.9	3942.9
65°	3234.5	3276.7	3949.6	4345.3	4666.5	4083.2	4024.1	3816.1	3821.1	3777.1	4402.8
67.5°	3161.7	3183.7	3726.5	4511.0	4925.2	4436.6	4380.8	4122.1	4061.2	4064.6	4675.0
70°	2980.9	3014.6	3449.2	4499.1	5129.8	4908.3	4852.6	4571.9	4424.8	4260.8	4465.3
72.5°	2277.5	2335.0	2906.4	3944.6	5074.0	5525.5	5510.2	5141.7	4570.1	3912.5	3378.2
75°	771.0	769.3	1526.8	2649.4	4558.4	5714.8	5745.2	5070.7	3986.8	2698.4	1677.2
77.5°	165.7	167.4	314.5	1073.7	3028.1	4588.8	4705.5	3824.5	2571.7	1202.2	383.8
80°	81.1	82.9	130.2	284.1	1210.6	2573.3	2755.9	1966.4	950.2	240.1	64.2
82.5°	40.6	42.2	67.6	150.5	448.1	914.7	977.2	723.6	272.2	135.2	32.1
85°	15.2	15.2	33.9	89.6	204.6	214.7	263.7	209.7	164.0	109.9	8.5
87.5°	3.4	3.4	18.6	44.0	91.3	67.6	67.6	64.2	99.7	74.4	3.4
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°	764.2	764.2	764.2	764.2	764.2	764.2	764.2	764.2	764.2	764.2	764.2
2.5°	762.5	755.8	743.9	732.1	723.6	713.5	708.4	703.4	701.6	700.0	703.4
5°	754.1	743.9	722.0	703.4	686.5	672.9	662.8	652.6	647.5	644.2	645.9
7.5°	754.1	738.9	706.8	678.0	650.9	622.2	593.4	571.5	554.5	544.4	546.2
10°	762.5	742.3	700.0	661.1	610.4	549.5	486.9	439.6	407.4	388.9	388.9
12.5°	781.1	754.1	701.6	640.8	554.5	448.1	353.3	295.8	272.2	258.7	260.3
15°	806.5	774.4	710.1	613.8	476.8	333.1	246.8	209.7	209.7	213.1	214.7
17.5°	835.2	799.7	716.9	573.2	377.1	238.4	194.5	191.1	196.1	204.6	204.6
20°	864.0	825.1	720.3	508.9	282.3	189.3	184.3	184.3	187.7	196.1	197.8
22.5°	899.5	857.2	716.9	429.4	211.3	179.2	177.5	177.5	177.5	187.7	187.7
25°	936.7	894.5	703.4	344.9	179.2	172.5	170.7	169.1	169.1	177.5	179.2
27.5°	979.0	933.3	671.3	263.7	169.1	165.7	164.0	160.6	160.6	167.4	167.4
30°	1021.2	977.2	622.2	199.5	160.6	159.0	155.6	152.2	148.7	155.6	155.6
32.5°	1066.8	1023.0	557.9	159.0	148.7	148.7	147.1	142.0	138.6	142.0	143.7
35°	1127.7	1075.3	485.3	138.6	133.6	133.6	133.6	131.9	125.1	128.5	128.5
37.5°	1208.9	1148.1	400.7	128.5	121.7	118.4	118.4	118.4	113.2	115.0	115.0
40°	1312.0	1232.6	319.6	120.1	113.2	104.9	101.5	103.1	99.7	99.7	98.1
42.5°	1452.4	1323.9	240.1	113.2	106.5	94.7	87.9	86.2	82.9	81.1	81.1
45°	1653.6	1435.5	172.5	106.5	101.5	82.9	76.1	71.0	62.6	57.5	57.5
47.5°	1913.9	1562.3	128.5	99.7	96.4	72.7	64.2	54.1	42.2	38.9	38.9
50°	2231.8	1704.3	108.2	89.6	87.9	64.2	50.7	35.5	23.6	20.3	22.0
52.5°	2541.2	1837.8	96.4	79.5	77.7	55.8	37.2	18.6	10.1	10.1	10.1
55°	2801.7	1932.6	87.9	71.0	67.6	44.0	20.3	8.5	5.1	5.1	5.1
57.5°	3036.6	1986.7	79.5	62.6	54.1	30.5	8.5	3.4	3.4	1.7	1.7
60°	3251.3	2018.8	69.4	54.1	42.2	16.9	3.4	1.7	1.7	0.0	0.0
62.5°	3462.7	2042.4	59.1	44.0	32.1	6.8	1.7	1.7	0.0	0.0	0.0
65°	3623.3	2034.0	47.4	35.5	20.3	3.4	1.7	0.0	0.0	0.0	0.0
67.5°	3618.3	1919.1	35.5	27.0	10.1	1.7	0.0	0.0	0.0	0.0	0.0
70°	3236.1	1616.4	23.6	16.9	3.4	1.7	0.0	0.0	0.0	0.0	0.0
72.5°	2296.1	1036.5	15.2	10.1	1.7	0.0	0.0	0.0	0.0	0.0	0.0
75°	1011.1	314.5	8.5	5.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	197.8	72.7	5.1	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	47.4	8.5	1.7	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	20.3	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	5.1	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.4	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)