

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: P214789

Luminaire Tested: **ARCH-AF24-80-D-U-T3-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214789
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-AF24-80-D-U-T3-7030-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 1050mA 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: 5815 lumens
Efficiency: N/A
Efficacy: 70.1 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): 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

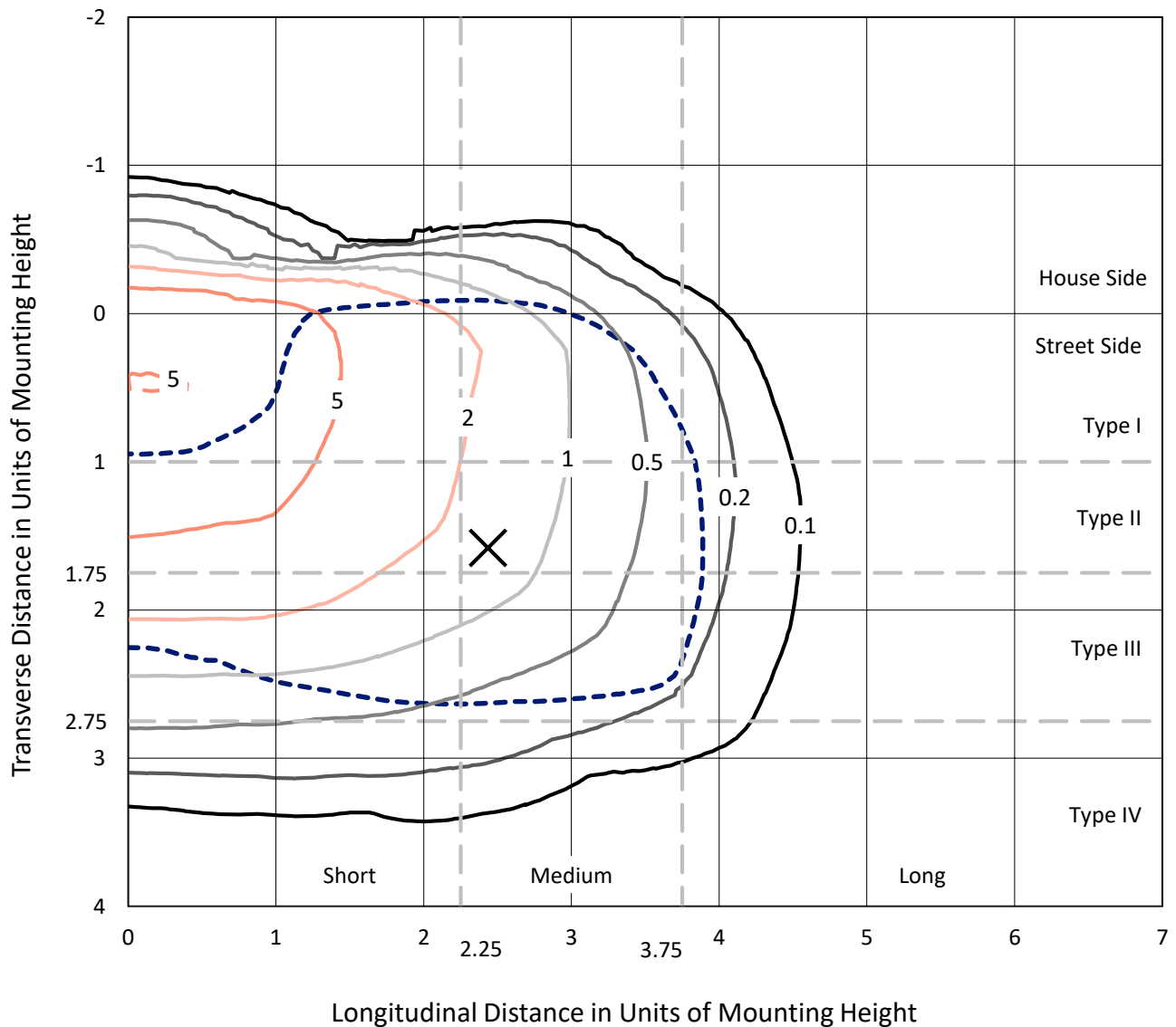


REPORT NUMBER: P214789

CATALOG NUMBER: ARCH-AF24-80-D-U-T3-7030-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

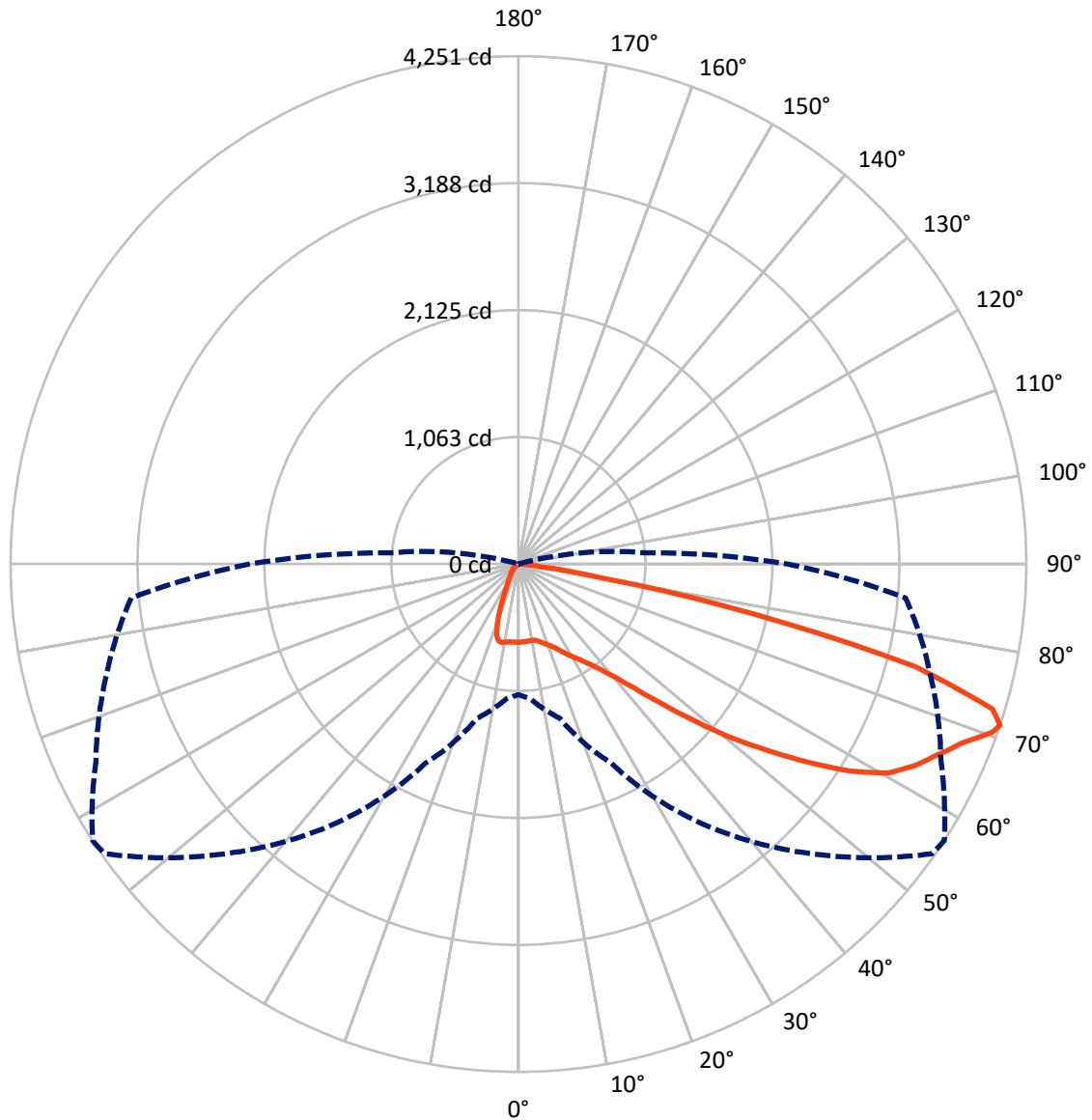


Based on 10 foot mounting height. Maximum calculated value = 8.2 fc
 Type III - Medium - Semi-Cutoff

REPORT NUMBER: P214789

CATALOG NUMBER: ARCH-AF24-80-D-U-T3-7030-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P214789

CATALOG NUMBER: ARCH-AF24-80-D-U-T3-7030-HSS

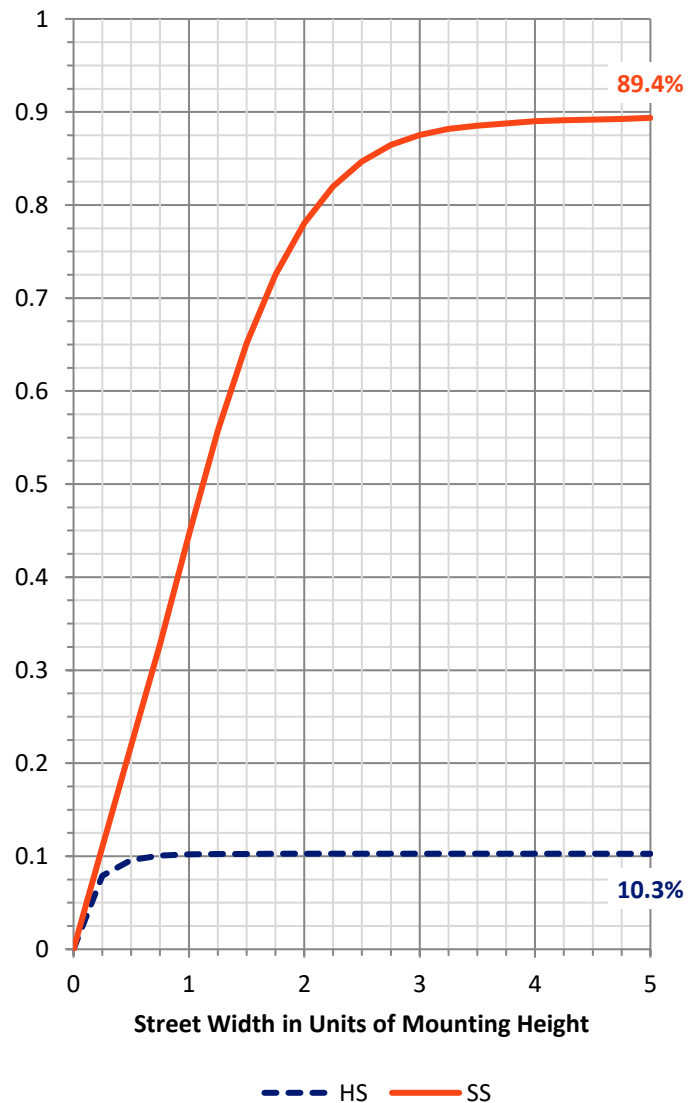
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	602.6	0.0	602.6
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	5212.4	0.0	5212.4
	% Fixture	89.6	0.0	89.6
Total	Lumens	5815.0	0.0	5815.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.7	1.1
10°-20°	165.0	2.8
20°-30°	257.4	4.4
30°-40°	435.1	7.5
40°-50°	845.1	14.5
50°-60°	1419.1	24.4
60°-70°	1693.6	29.1
70°-80°	892.6	15.3
80°-90°	45.4	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°	5815.0	100.0
0°-180°	5815.0	100.0



REPORT NUMBER: P214789

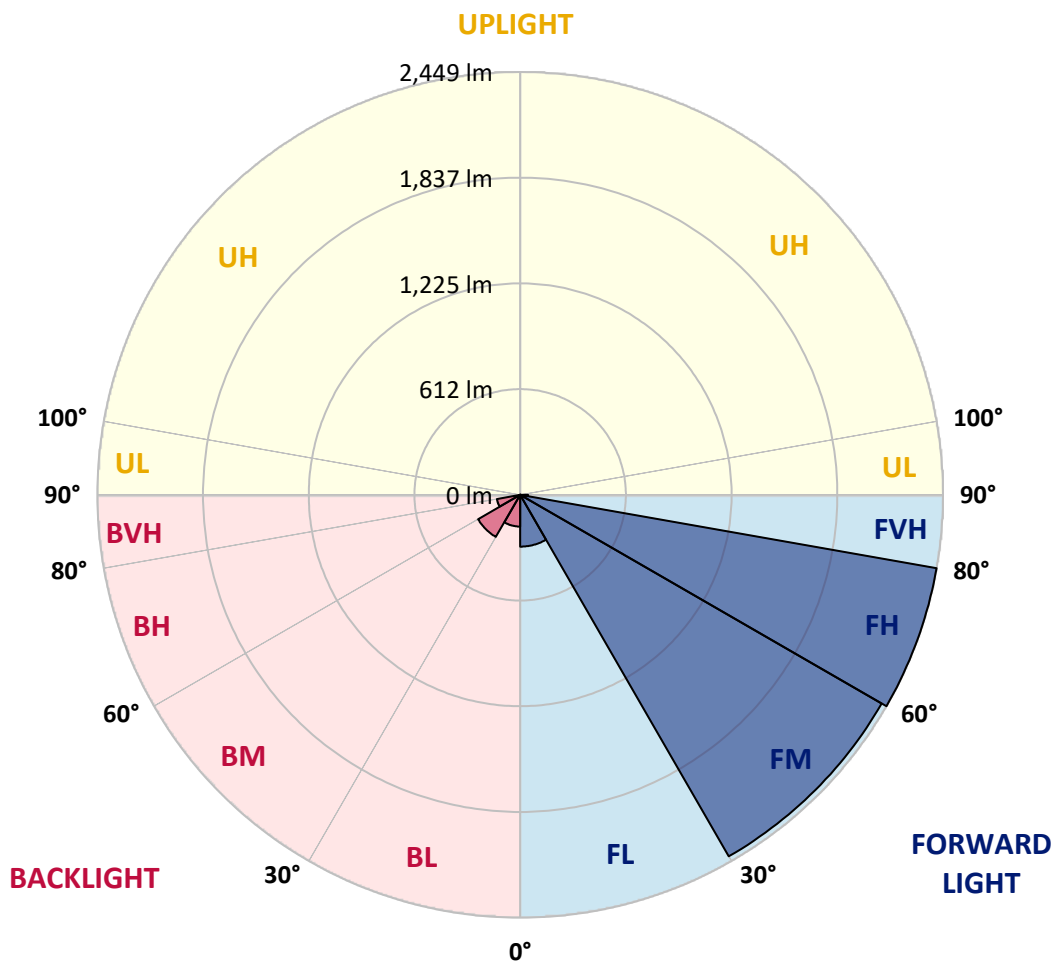
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	300.2	5.2			
FM	(30°-60°)	2417.9	41.6			
FH	(60°-80°)	2449.3	42.1			G2/5000
FVH	(80°-90°)	44.9	0.8			G1/100
BL	(0°-30°)	184.0	3.2	B1/500		
BM	(30°-60°)	281.4	4.8	B1/1000		
BH	(60°-80°)	136.9	2.4	B1/500		G1/500
BVH	(80°-90°)	0.4	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





REPORT NUMBER: P214789

CATALOG NUMBER: ARCH-AF24-80-D-U-T3-7030-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	657.2	657.2	657.2	657.2	657.2	657.2	657.2	657.2	657.2	657.2	657.2
2.5°	647.7	647.7	647.7	649.1	650.4	650.4	653.1	651.8	651.8	651.8	654.5
5°	630.1	631.4	632.8	635.5	640.9	645.0	651.8	651.8	653.1	655.8	657.2
7.5°	605.7	607.0	611.1	616.5	627.4	636.9	647.7	650.4	654.5	661.2	664.0
10°	590.8	593.5	598.9	605.7	617.9	630.1	643.6	647.7	659.9	672.1	678.9
12.5°	586.7	588.1	593.5	604.3	619.2	634.1	651.8	655.8	673.4	692.4	703.3
15°	593.5	594.9	597.6	609.8	627.4	646.3	669.4	674.8	696.5	718.2	731.7
17.5°	605.7	605.7	608.4	619.2	638.2	659.9	689.7	697.8	722.2	746.6	761.5
20°	613.8	613.8	617.9	628.7	650.4	678.9	714.1	724.9	752.0	779.1	792.7
22.5°	622.0	623.3	627.4	639.6	664.0	703.3	743.9	754.7	785.9	814.4	827.9
25°	645.0	643.6	645.0	655.8	684.3	733.1	784.6	798.1	830.6	861.8	868.6
27.5°	708.7	706.0	688.3	681.6	703.3	764.2	836.0	849.6	887.5	918.7	918.7
30°	855.0	849.6	806.2	750.7	733.1	792.7	884.8	903.8	952.6	979.7	971.5
32.5°	1040.7	1028.5	972.9	878.1	807.6	830.6	936.3	958.0	1020.3	1043.4	1025.7
35°	1243.9	1242.6	1173.4	1051.5	951.2	909.2	1002.7	1028.5	1107.0	1127.4	1098.9
37.5°	1459.4	1464.8	1418.7	1250.7	1132.8	1037.9	1090.8	1120.6	1216.8	1241.2	1214.1
40°	1699.2	1697.8	1680.2	1481.0	1351.0	1220.9	1218.2	1245.3	1361.8	1399.7	1361.8
42.5°	2002.7	2000.0	1936.3	1757.5	1615.2	1459.4	1403.8	1413.3	1543.4	1605.7	1550.1
45°	2311.7	2292.7	2219.5	2065.0	1939.0	1754.7	1649.1	1649.1	1760.2	1845.5	1758.8
47.5°	2483.7	2464.8	2435.0	2349.6	2311.7	2105.7	1949.9	1930.9	2017.6	2104.3	1982.4
50°	2710.0	2710.0	2635.5	2603.0	2668.0	2523.0	2281.8	2262.9	2304.9	2374.0	2214.1
52.5°	2888.9	2856.4	2803.5	2832.0	3017.6	2951.2	2613.8	2577.2	2609.8	2627.4	2416.0
55°	2963.4	2932.3	2928.2	3032.5	3319.8	3227.7	2953.9	2921.4	2918.7	2832.0	2592.1
57.5°	2978.3	2951.2	3002.7	3185.6	3613.8	3453.9	3292.7	3268.3	3192.4	2975.6	2772.4
60°	2852.3	2865.9	2990.5	3269.7	3787.3	3650.4	3578.6	3552.9	3378.1	3097.6	2972.9
62.5°	2593.5	2626.0	2859.1	3277.8	3723.6	3730.4	3737.1	3719.5	3521.7	3208.7	3174.8
65°	2287.3	2296.8	2577.2	3165.3	3612.5	3706.0	3853.7	3852.3	3631.4	3333.3	3402.4
67.5°	1884.8	1901.1	2143.6	2785.9	3390.3	3695.1	4006.8	4002.7	3756.1	3475.6	3537.9
70°	1402.4	1422.8	1619.2	2166.7	2894.3	3559.6	4207.3	4210.0	3887.5	3584.0	3444.5
71°	1093.5	1130.1	1336.0	1840.1	2640.9	3422.8	4226.3	4250.7	3902.4	3569.1	3252.0
72.5°	536.6	579.9	838.8	1295.4	2173.4	3116.5	4101.6	4149.1	3809.0	3383.5	2780.5
75°	139.6	147.7	250.7	529.8	1165.3	2065.0	3307.6	3428.2	3113.8	2575.9	1699.2
77.5°	88.1	90.8	117.9	206.0	436.3	784.6	1943.1	2002.7	1779.1	1304.9	598.9
80°	62.3	63.7	74.5	132.8	254.7	229.0	699.2	724.9	643.6	345.5	107.0
82.5°	37.9	37.9	54.2	85.4	157.2	124.7	184.3	196.5	173.4	96.2	35.2
85°	21.7	23.0	33.9	58.3	74.5	61.0	69.1	73.2	74.5	63.7	14.9
87.5°	17.6	19.0	29.8	48.8	40.7	29.8	29.8	31.2	32.5	37.9	6.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P214789

CATALOG NUMBER: ARCH-AF24-80-D-U-T3-7030-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	657.2	657.2	657.2	657.2	657.2	657.2	657.2	657.2	657.2	657.2	657.2
2.5°	654.5	654.5	655.8	654.5	654.5	654.5	655.8	655.8	655.8	658.5	659.9
5°	657.2	657.2	657.2	655.8	654.5	654.5	657.2	658.5	658.5	662.6	662.6
7.5°	664.0	664.0	661.2	658.5	655.8	651.8	653.1	654.5	653.1	654.5	654.5
10°	678.9	678.9	674.8	669.4	661.2	649.1	632.8	612.5	593.5	586.7	584.0
12.5°	703.3	701.9	693.8	684.3	666.7	624.7	563.7	491.9	432.3	416.0	410.6
15°	730.4	727.6	718.2	701.9	654.5	543.4	416.0	323.8	266.9	253.4	250.7
17.5°	758.8	754.7	741.2	708.7	598.9	403.8	268.3	203.3	172.1	169.4	170.7
20°	788.6	783.2	764.2	695.1	483.7	269.6	173.4	157.2	154.5	154.5	155.8
22.5°	822.5	815.7	790.0	646.3	352.3	178.9	149.1	147.7	146.3	145.0	145.0
25°	861.8	853.7	814.4	558.3	242.5	146.3	142.3	138.2	135.5	132.8	131.4
27.5°	909.2	898.4	833.3	449.9	166.7	136.9	134.1	127.4	122.0	116.5	116.5
30°	956.6	943.1	827.9	338.8	135.5	127.4	122.0	113.8	105.7	100.3	98.9
32.5°	1006.8	993.2	792.7	227.6	123.3	116.5	109.8	97.6	88.1	81.3	79.9
35°	1081.3	1070.5	723.6	150.4	111.1	103.0	93.5	81.3	69.1	62.3	61.0
37.5°	1192.4	1178.9	638.2	115.2	97.6	85.4	77.2	63.7	51.5	44.7	43.4
40°	1341.5	1300.8	536.6	101.6	85.4	70.5	59.6	46.1	36.6	32.5	32.5
42.5°	1514.9	1418.7	426.8	92.1	75.9	58.3	43.4	31.2	25.7	24.4	24.4
45°	1699.2	1528.5	317.1	85.4	66.4	46.1	31.2	21.7	19.0	17.6	17.6
47.5°	1888.9	1617.9	220.9	77.2	55.6	35.2	21.7	16.3	13.6	12.2	12.2
50°	2066.4	1676.2	155.8	69.1	47.4	25.7	16.3	12.2	9.5	9.5	9.5
52.5°	2189.7	1670.7	112.5	59.6	36.6	17.6	10.8	8.1	8.1	8.1	8.1
55°	2298.1	1650.4	88.1	51.5	28.5	12.2	8.1	6.8	6.8	5.4	5.4
57.5°	2390.2	1617.9	74.5	42.0	20.3	9.5	5.4	5.4	4.1	4.1	4.1
60°	2468.8	1577.2	62.3	35.2	13.6	6.8	4.1	2.7	2.7	1.4	2.7
62.5°	2575.9	1551.5	54.2	27.1	9.5	4.1	2.7	1.4	1.4	0.0	0.0
65°	2654.5	1502.7	46.1	19.0	5.4	2.7	1.4	1.4	0.0	0.0	0.0
67.5°	2657.2	1414.6	33.9	10.8	4.1	2.7	1.4	0.0	0.0	0.0	0.0
70°	2443.1	1206.0	21.7	5.4	2.7	1.4	1.4	0.0	0.0	0.0	0.0
71°	2246.6	1067.8	17.6	4.1	2.7	1.4	0.0	0.0	0.0	0.0	0.0
72.5°	1851.0	784.6	13.6	4.1	1.4	1.4	0.0	0.0	0.0	0.0	0.0
75°	1020.3	284.6	6.8	2.7	1.4	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	326.6	86.7	4.1	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	55.6	13.6	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	19.0	5.4	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	5.4	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.7	1.4	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)