

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: P265901

Luminaire Tested: **ARCH-AF16-50-D-U-T3-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265901
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-AF16-50-D-U-T3-7027-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 980mA LIGHT ENGINE WITH 16 LEDS AND TYPE III OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3727.7 lumens
Efficiency: N/A
Efficacy: 70.3 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 - G1

Input Watts (W): 53
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

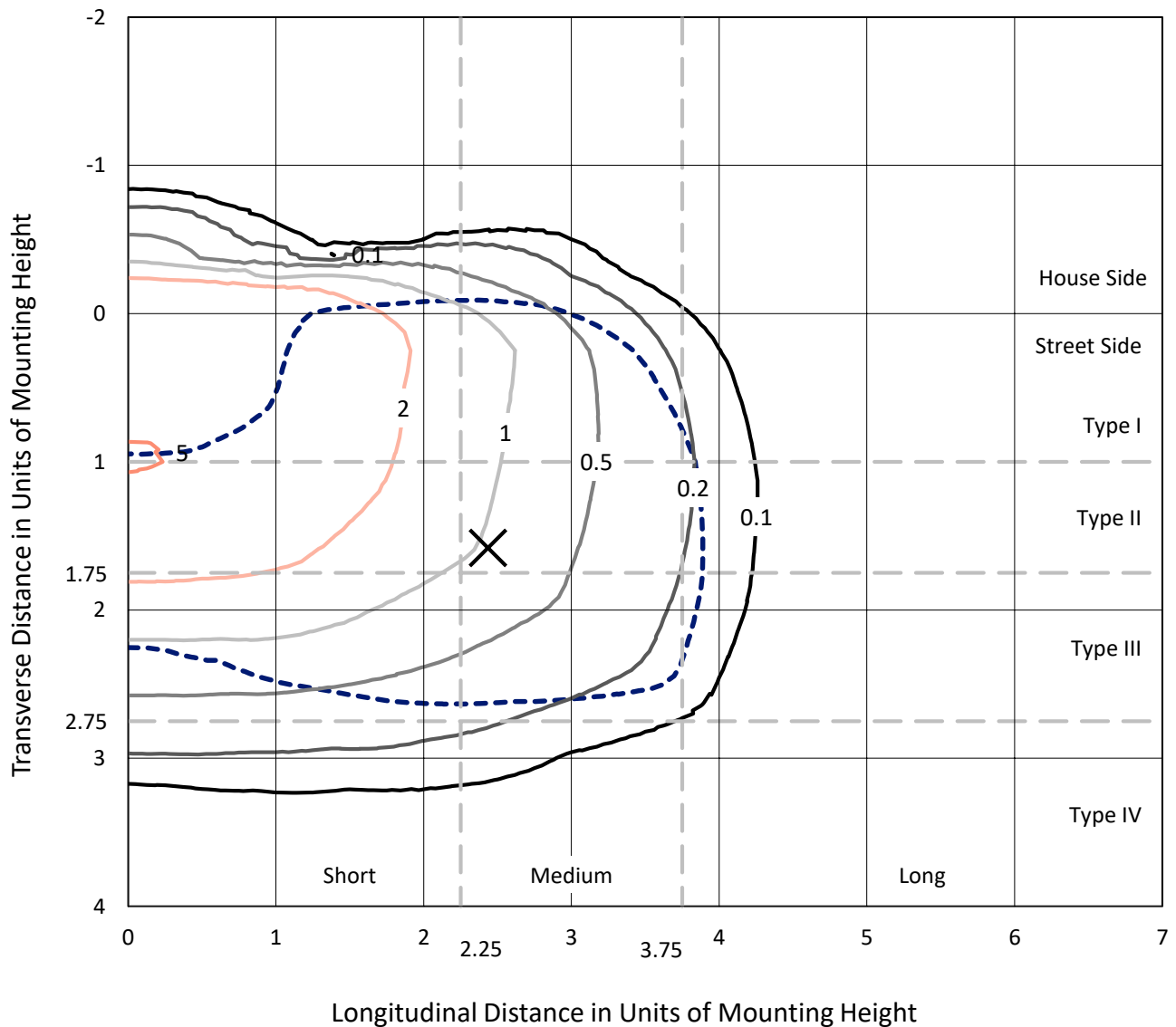


REPORT NUMBER: P265901

CATALOG NUMBER: ARCH-AF16-50-D-U-T3-7027-HSS

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

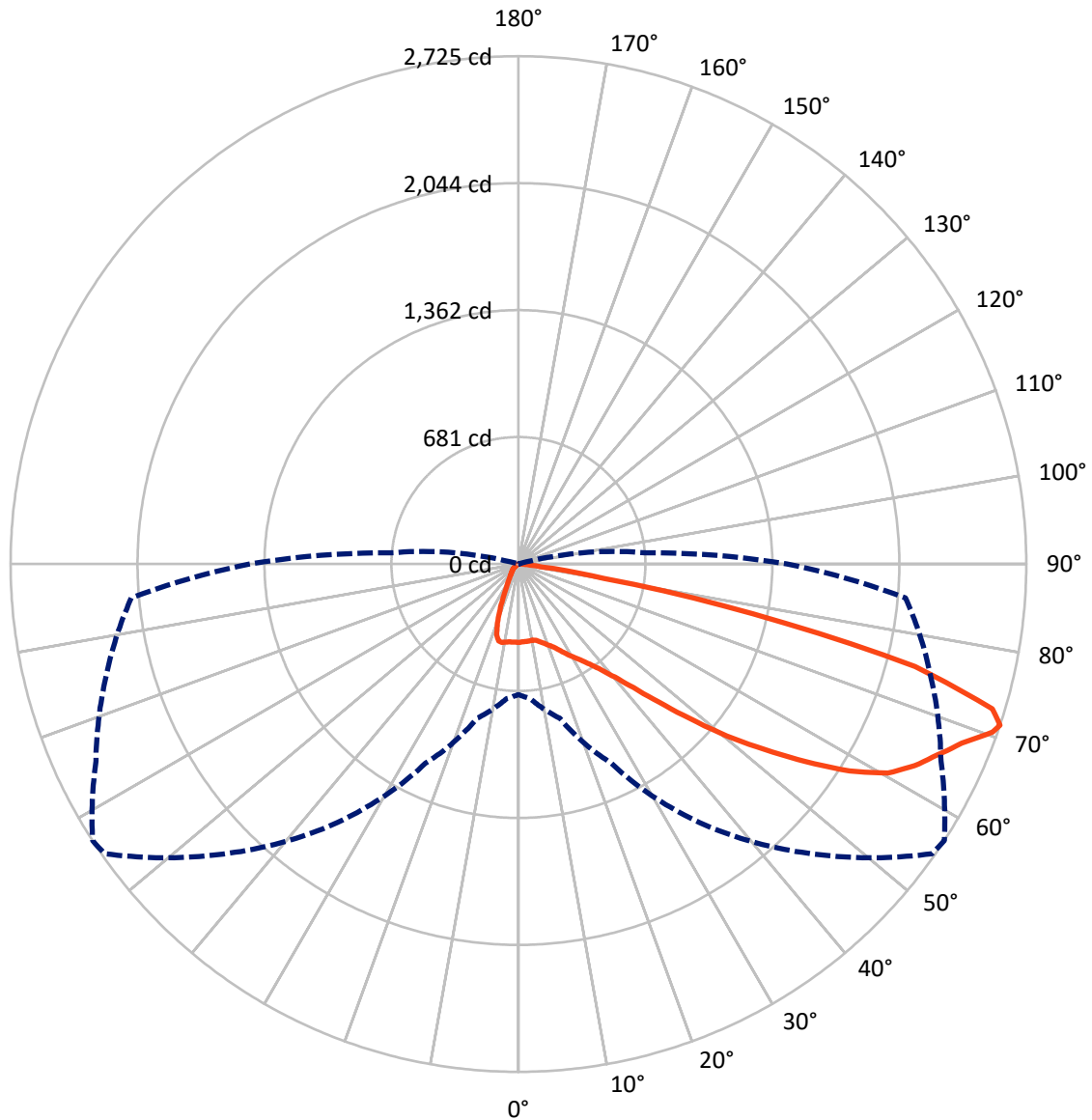


Based on 10 foot mounting height. Maximum calculated value = 5.2 fc
 Type III - Medium - Semi-Cutoff

REPORT NUMBER: P265901

CATALOG NUMBER: ARCH-AF16-50-D-U-T3-7027-HSS

Luminous Intensity Polar Plot



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

REPORT NUMBER: P265901

CATALOG NUMBER: ARCH-AF16-50-D-U-T3-7027-HSS

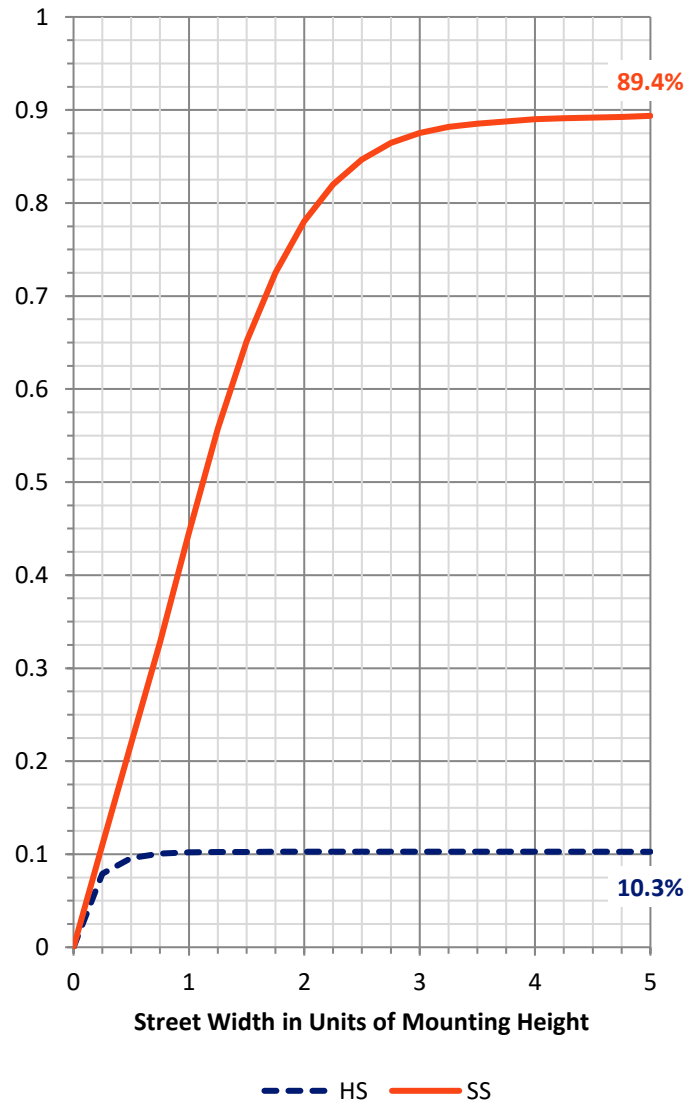
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	386.3	0.0	386.3
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	3341.4	0.0	3341.4
	% Fixture	89.6	0.0	89.6
Total	Lumens	3727.7	0.0	3727.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.6	1.1
10°-20°	105.8	2.8
20°-30°	165.0	4.4
30°-40°	278.9	7.5
40°-50°	541.7	14.5
50°-60°	909.7	24.4
60°-70°	1085.7	29.1
70°-80°	572.2	15.3
80°-90°	29.1	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°	3727.7	100.0
0°-180°	3727.7	100.0



REPORT NUMBER: P265901

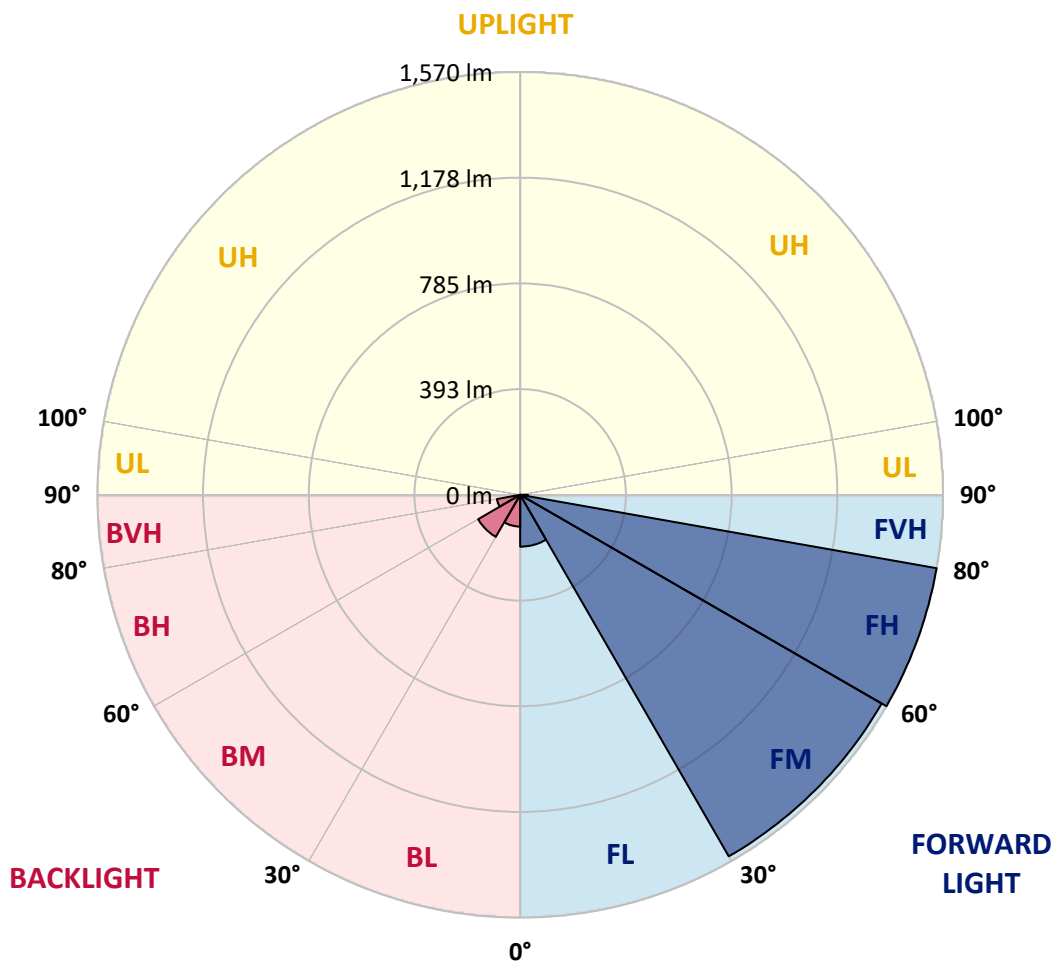
CATALOG NUMBER: ARCH-AF16-50-D-U-T3-7027-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	192.4	5.2			
FM	(30°-60°)	1550.0	41.6			
FH	(60°-80°)	1570.1	42.1			G1/1800
FVH	(80°-90°)	28.8	0.8			G1/100
BL	(0°-30°)	117.9	3.2	B1/500		
BM	(30°-60°)	180.4	4.8	B0/220		
BH	(60°-80°)	87.7	2.4	B0/110		G0/110
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-G1

Type III Medium





REPORT NUMBER: P265901

CATALOG NUMBER: ARCH-AF16-50-D-U-T3-7027-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	421.2	421.2	421.2	421.2	421.2	421.2	421.2	421.2	421.2	421.2	421.2
2.5°	415.1	415.1	415.1	416.1	417.0	417.0	418.7	417.8	417.8	417.8	419.6
5°	403.9	404.7	405.7	407.4	410.9	413.5	417.8	417.8	418.7	420.3	421.2
7.5°	388.2	389.1	391.8	395.3	402.3	408.3	415.1	417.0	419.6	423.9	425.6
10°	378.7	380.4	383.9	388.2	396.2	403.9	412.6	415.1	423.0	430.8	435.1
12.5°	376.1	377.0	380.4	387.3	397.1	406.6	417.8	420.3	431.7	443.9	450.8
15°	380.4	381.3	383.0	390.9	402.3	414.4	429.1	432.5	446.5	460.4	469.0
17.5°	388.2	388.2	390.0	397.1	409.1	423.0	442.1	447.4	462.9	478.5	488.1
20°	393.5	393.5	396.2	403.0	417.0	435.1	457.7	464.8	482.1	499.5	508.1
22.5°	398.7	399.6	402.3	409.9	425.6	450.8	476.9	483.8	503.8	522.0	530.7
25°	413.5	412.6	413.5	420.3	438.6	470.0	503.0	511.7	532.4	552.5	556.8
27.5°	454.4	452.6	441.2	436.9	450.8	489.8	536.0	544.6	568.9	588.8	588.8
30°	548.1	544.6	516.9	481.2	470.0	508.1	567.2	579.3	610.7	628.0	622.9
32.5°	667.1	659.3	623.7	562.9	517.8	532.4	600.2	614.1	654.1	668.9	657.6
35°	797.3	796.5	752.2	674.1	609.8	582.8	642.7	659.3	709.8	722.6	704.5
37.5°	935.6	939.0	909.4	801.7	726.2	665.4	699.2	718.4	780.0	795.7	778.3
40°	1089.3	1088.3	1077.1	949.4	866.1	782.7	780.8	798.2	873.0	897.2	873.0
42.5°	1283.9	1282.2	1241.3	1126.7	1035.3	935.6	899.9	906.0	989.4	1029.3	993.7
45°	1481.8	1469.6	1422.8	1323.8	1243.1	1124.9	1057.1	1057.1	1128.4	1183.1	1127.5
47.5°	1592.2	1579.9	1561.0	1506.2	1481.8	1349.9	1249.9	1237.8	1293.4	1349.0	1270.8
50°	1737.2	1737.2	1689.5	1668.6	1710.4	1617.4	1462.8	1450.7	1477.5	1521.8	1419.3
52.5°	1851.9	1831.0	1797.1	1815.5	1934.4	1891.9	1675.6	1652.2	1673.0	1684.2	1548.8
55°	1899.6	1879.8	1877.1	1944.0	2128.2	2069.1	1893.5	1872.7	1871.0	1815.5	1661.7
57.5°	1909.3	1891.9	1924.9	2042.1	2316.5	2214.1	2110.7	2095.1	2046.5	1907.6	1777.1
60°	1828.5	1837.2	1917.1	2095.9	2427.8	2340.1	2294.0	2277.6	2165.5	1985.7	1905.8
62.5°	1662.6	1683.5	1832.8	2101.1	2386.9	2391.3	2395.7	2384.5	2257.6	2056.8	2035.2
65°	1466.3	1472.3	1652.2	2029.1	2315.7	2375.7	2470.3	2469.5	2327.9	2136.8	2181.2
67.5°	1208.3	1218.7	1374.1	1785.9	2173.3	2368.7	2568.6	2565.9	2407.8	2228.1	2268.0
70°	899.1	912.0	1038.0	1388.9	1855.4	2281.9	2697.2	2698.8	2492.1	2297.5	2208.0
71°	700.9	724.5	856.4	1179.6	1692.9	2194.1	2709.3	2724.9	2501.6	2288.0	2084.6
72.5°	344.1	371.8	537.6	830.5	1393.4	1997.8	2629.2	2659.7	2441.8	2169.0	1782.3
75°	89.6	94.7	160.6	339.6	747.0	1323.8	2120.3	2197.7	1996.2	1651.3	1089.3
77.5°	56.5	58.2	75.5	132.1	279.7	503.0	1245.6	1283.9	1140.5	836.5	383.9
80°	40.0	40.9	47.8	85.1	163.3	146.9	448.3	464.8	412.6	221.5	68.6
82.5°	24.3	24.3	34.8	54.7	100.8	79.9	118.1	125.9	111.2	61.7	22.5
85°	14.0	14.7	21.6	37.4	47.8	39.0	44.2	46.9	47.8	40.9	9.5
87.5°	11.3	12.1	19.1	31.4	26.1	19.1	19.1	20.0	20.8	24.3	4.3
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: P265901

CATALOG NUMBER: ARCH-AF16-50-D-U-T3-7027-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	421.2	421.2	421.2	421.2	421.2	421.2	421.2	421.2	421.2	421.2	421.2
2.5°	419.6	419.6	420.3	419.6	419.6	419.6	420.3	420.3	420.3	422.2	423.0
5°	421.2	421.2	421.2	420.3	419.6	419.6	421.2	422.2	422.2	424.8	424.8
7.5°	425.6	425.6	423.9	422.2	420.3	417.8	418.7	419.6	418.7	419.6	419.6
10°	435.1	435.1	432.5	429.1	423.9	416.1	405.7	392.6	380.4	376.1	374.4
12.5°	450.8	450.0	444.8	438.6	427.4	400.5	361.4	315.3	277.0	266.6	263.3
15°	468.1	466.5	460.4	450.0	419.6	348.4	266.6	207.6	171.0	162.5	160.6
17.5°	486.4	483.8	475.2	454.4	383.9	258.8	171.9	130.3	110.3	108.5	109.5
20°	505.6	502.1	489.8	445.6	310.1	172.8	111.2	100.8	99.1	99.1	99.9
22.5°	527.2	523.0	506.5	414.4	225.8	114.7	95.6	94.7	93.9	93.0	93.0
25°	552.5	547.2	522.0	357.9	155.4	93.9	91.2	88.7	86.9	85.1	84.3
27.5°	582.8	576.0	534.2	288.4	106.9	87.8	86.0	81.7	78.2	74.6	74.6
30°	613.3	604.6	530.7	217.2	86.9	81.7	78.2	72.9	67.7	64.3	63.4
32.5°	645.4	636.7	508.1	146.0	79.1	74.6	70.3	62.5	56.5	52.1	51.3
35°	693.1	686.2	463.9	96.4	71.2	66.0	59.9	52.1	44.2	40.0	39.0
37.5°	764.4	755.7	409.1	73.8	62.5	54.7	49.4	40.9	33.0	28.7	27.8
40°	859.9	833.8	344.1	65.1	54.7	45.2	38.2	29.6	23.4	20.8	20.8
42.5°	971.1	909.4	273.7	59.1	48.7	37.4	27.8	20.0	16.4	15.6	15.6
45°	1089.3	979.8	203.2	54.7	42.6	29.6	20.0	14.0	12.1	11.3	11.3
47.5°	1210.8	1037.2	141.7	49.4	35.7	22.5	14.0	10.4	8.8	7.8	7.8
50°	1324.6	1074.6	99.9	44.2	30.5	16.4	10.4	7.8	6.1	6.1	6.1
52.5°	1403.7	1071.0	72.1	38.2	23.4	11.3	6.9	5.2	5.2	5.2	5.2
55°	1473.2	1057.9	56.5	33.0	18.2	7.8	5.2	4.3	4.3	3.5	3.5
57.5°	1532.2	1037.2	47.8	26.9	13.0	6.1	3.5	3.5	2.6	2.6	2.6
60°	1582.6	1011.1	40.0	22.5	8.8	4.3	2.6	1.7	1.7	0.9	1.7
62.5°	1651.3	994.6	34.8	17.3	6.1	2.6	1.7	0.9	0.9	0.0	0.0
65°	1701.6	963.3	29.6	12.1	3.5	1.7	0.9	0.9	0.0	0.0	0.0
67.5°	1703.4	906.8	21.6	6.9	2.6	1.7	0.9	0.0	0.0	0.0	0.0
70°	1566.1	773.1	14.0	3.5	1.7	0.9	0.9	0.0	0.0	0.0	0.0
71°	1440.3	684.5	11.3	2.6	1.7	0.9	0.0	0.0	0.0	0.0	0.0
72.5°	1186.5	503.0	8.8	2.6	0.9	0.9	0.0	0.0	0.0	0.0	0.0
75°	654.1	182.4	4.3	1.7	0.9	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	209.3	55.5	2.6	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	35.7	8.8	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	12.1	3.5	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	3.5	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.7	0.9	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)