

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: P234728

Luminaire Tested: **ARCH-AF16-60-D-U-T3-8027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P234728
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-AF16-60-D-U-T3-8027-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 1160mA 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: 3741 lumens
Efficiency: N/A
Efficacy: 59.4 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): 63
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

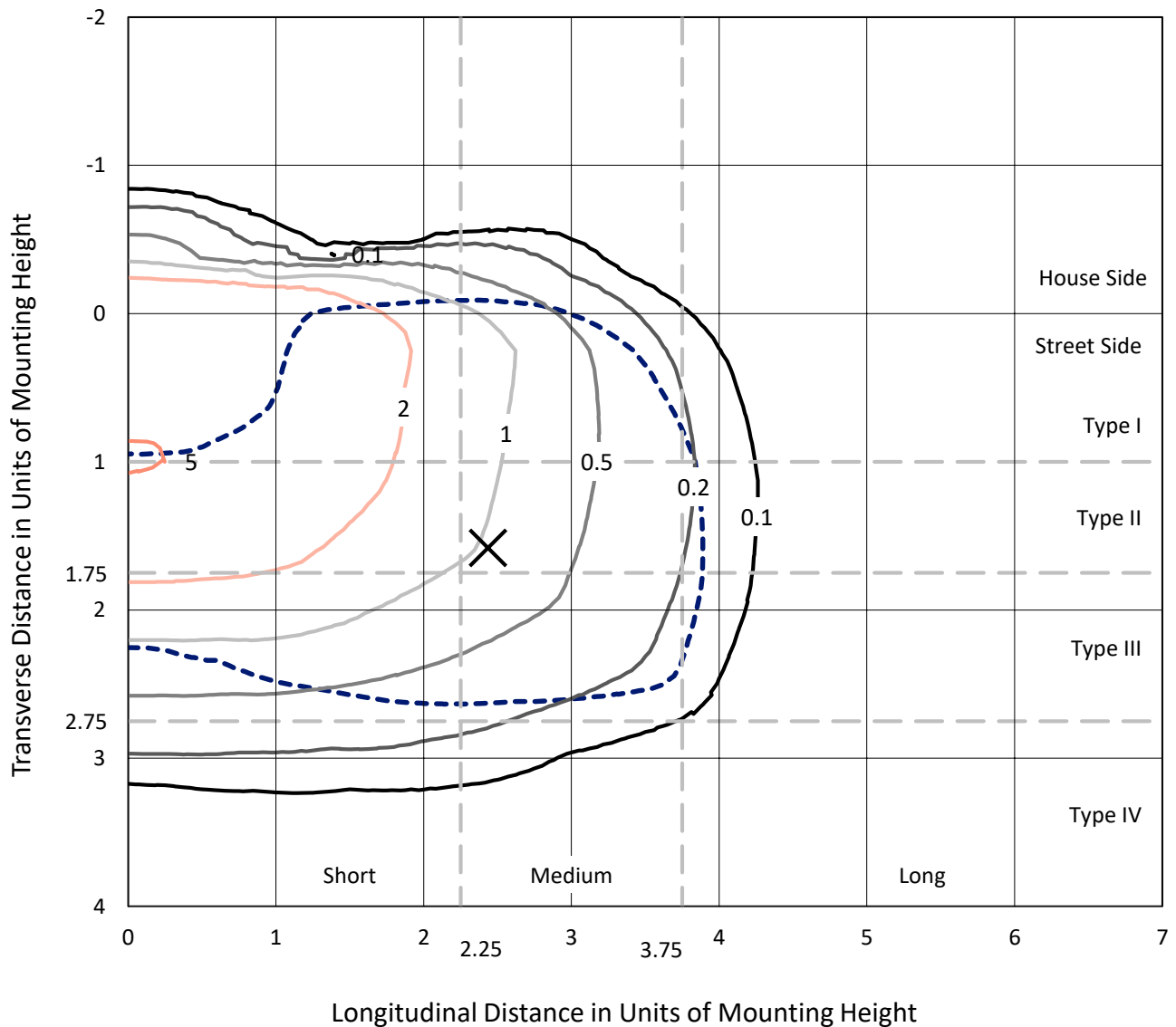


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

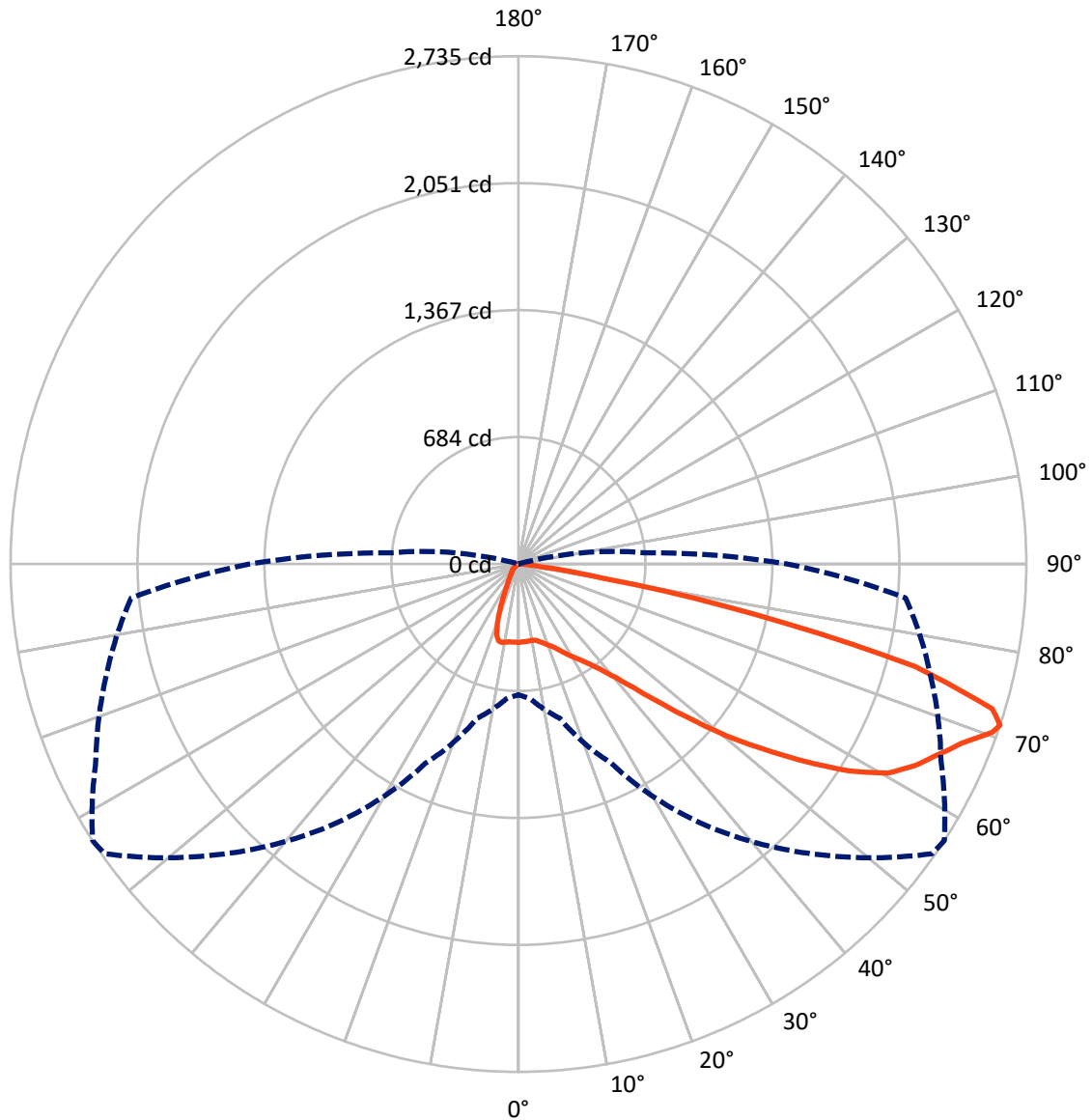


Based on 10 foot mounting height. Maximum calculated value = 5.3 fc
 Type III - Medium - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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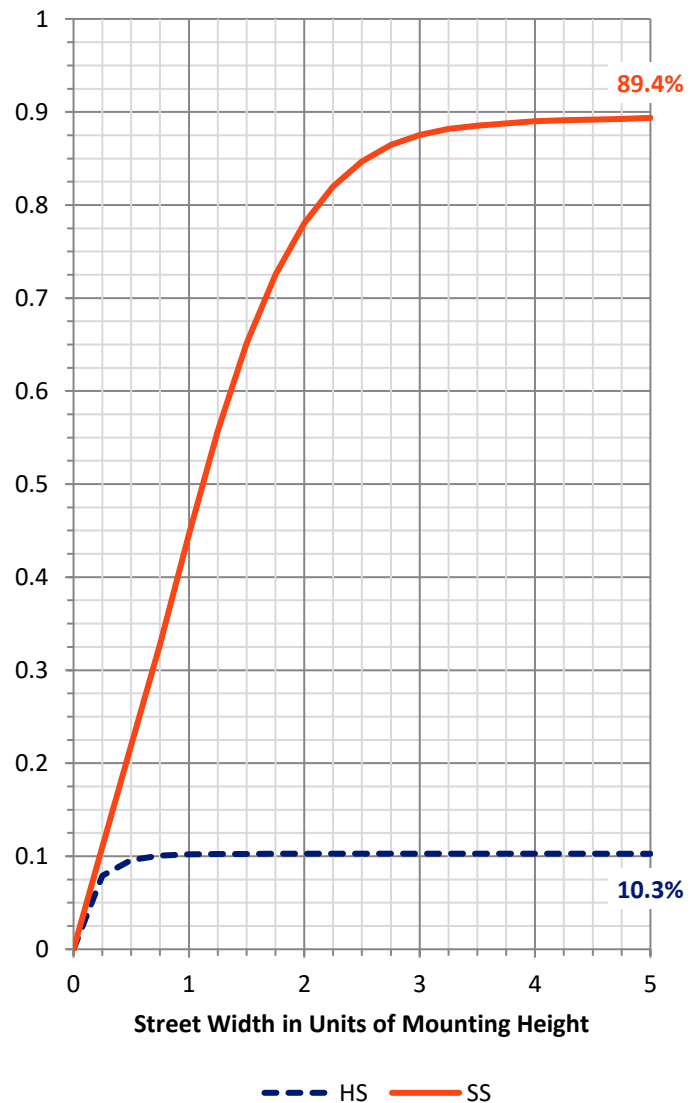
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	387.7	0.0	387.7
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	3353.3	0.0	3353.3
	% Fixture	89.6	0.0	89.6
Total	Lumens	3741.0	0.0	3741.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.7	1.1
10°-20°	106.2	2.8
20°-30°	165.6	4.4
30°-40°	279.9	7.5
40°-50°	543.7	14.5
50°-60°	913.0	24.4
60°-70°	1089.6	29.1
70°-80°	574.2	15.3
80°-90°	29.2	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°	3741.0	100.0
0°-180°	3741.0	100.0



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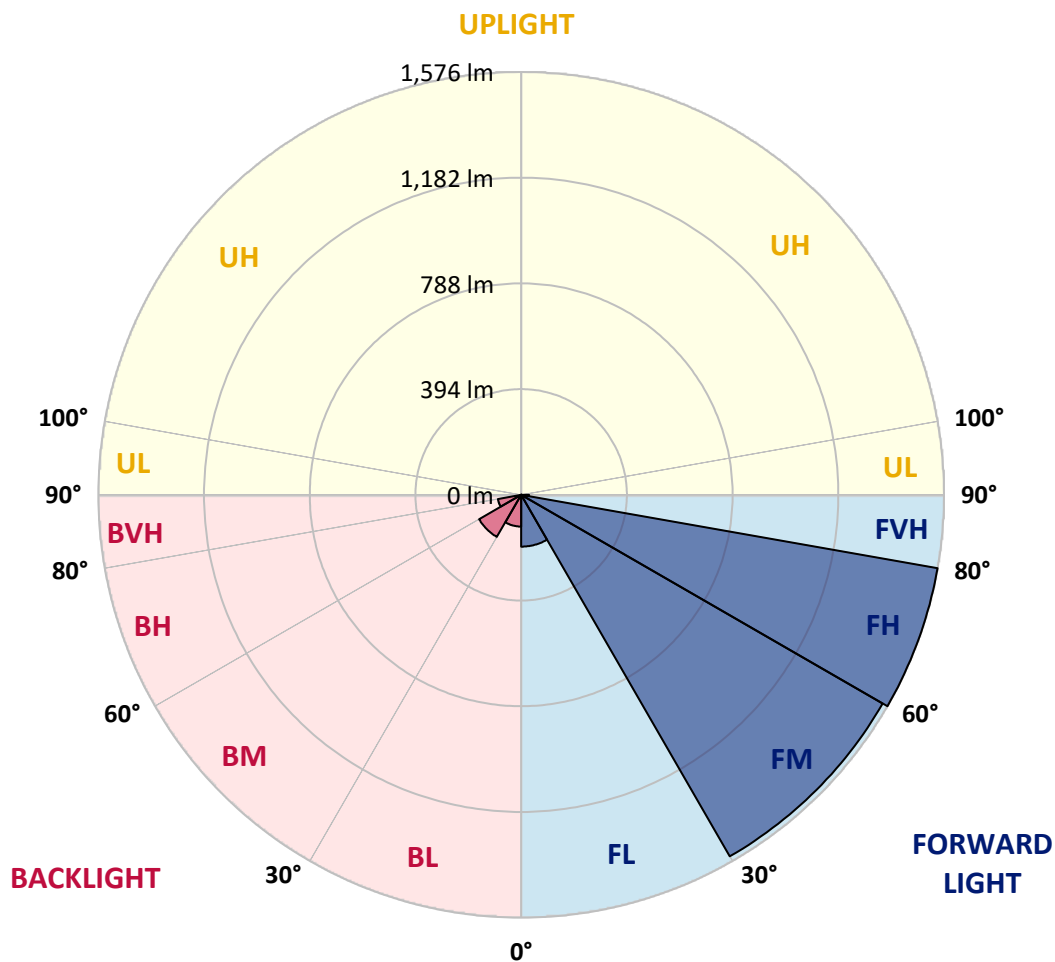
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	193.1	5.2			
FM	(30°-60°)	1555.5	41.6			
FH	(60°-80°)	1575.7	42.1			G1/1800
FVH	(80°-90°)	28.9	0.8			G1/100
BL	(0°-30°)	118.3	3.2	B1/500		
BM	(30°-60°)	181.0	4.8	B0/220		
BH	(60°-80°)	88.0	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8
2.5°	416.7	416.7	416.7	417.6	418.4	418.4	420.2	419.3	419.3	419.3	421.0
5°	405.4	406.2	407.1	408.8	412.3	414.9	419.3	419.3	420.2	421.9	422.8
7.5°	389.7	390.5	393.2	396.6	403.6	409.7	416.7	418.4	421.0	425.4	427.1
10°	380.1	381.8	385.3	389.7	397.5	405.4	414.1	416.7	424.5	432.4	436.7
12.5°	377.5	378.3	381.8	388.8	398.4	408.0	419.3	421.9	433.3	445.5	452.4
15°	381.8	382.7	384.4	392.3	403.6	415.8	430.6	434.1	448.1	462.0	470.7
17.5°	389.7	389.7	391.4	398.4	410.6	424.5	443.7	448.9	464.6	480.3	489.9
20°	394.9	394.9	397.5	404.5	418.4	436.7	459.4	466.4	483.8	501.2	510.0
22.5°	400.1	401.0	403.6	411.5	427.1	452.4	478.6	485.6	505.6	523.9	532.6
25°	414.9	414.1	414.9	421.9	440.2	471.6	504.7	513.4	534.4	554.4	558.8
27.5°	455.9	454.2	442.8	438.5	452.4	491.7	537.9	546.6	571.0	591.0	591.0
30°	550.1	546.6	518.7	482.9	471.6	510.0	569.2	581.4	612.8	630.3	625.0
32.5°	669.5	661.6	625.9	564.9	519.6	534.4	602.4	616.3	656.4	671.2	659.9
35°	800.2	799.4	754.9	676.5	612.0	584.9	645.1	661.6	712.2	725.3	707.0
37.5°	938.9	942.3	912.7	804.6	728.8	667.7	701.7	720.9	782.8	798.5	781.1
40°	1093.2	1092.3	1080.9	952.8	869.1	785.4	783.7	801.1	876.1	900.5	876.1
42.5°	1288.4	1286.7	1245.7	1130.6	1039.1	938.9	903.1	909.2	992.9	1033.0	997.3
45°	1487.2	1475.0	1427.9	1328.5	1247.4	1128.9	1060.9	1060.9	1132.4	1187.3	1131.5
47.5°	1597.9	1585.7	1566.5	1511.6	1487.2	1354.7	1254.4	1242.2	1298.0	1353.8	1275.3
50°	1743.5	1743.5	1695.5	1674.6	1716.4	1623.2	1468.0	1455.8	1482.8	1527.3	1424.4
52.5°	1858.5	1837.6	1803.6	1821.9	1941.3	1898.6	1681.6	1658.0	1679.0	1690.3	1554.3
55°	1906.5	1886.4	1883.8	1950.9	2135.7	2076.5	1900.4	1879.5	1877.7	1821.9	1667.6
57.5°	1916.1	1898.6	1931.8	2049.4	2324.9	2222.0	2118.3	2102.6	2053.8	1914.3	1783.6
60°	1835.0	1843.7	1923.9	2103.5	2436.5	2348.4	2302.2	2285.7	2173.2	1992.8	1912.6
62.5°	1668.5	1689.4	1839.4	2108.7	2395.5	2399.9	2404.2	2392.9	2265.6	2064.3	2042.5
65°	1471.5	1477.6	1658.0	2036.4	2324.0	2384.2	2479.2	2478.3	2336.2	2144.5	2188.9
67.5°	1212.6	1223.0	1379.1	1792.3	2181.1	2377.2	2577.7	2575.1	2416.4	2236.0	2276.1
70°	902.2	915.3	1041.7	1393.9	1862.0	2290.0	2706.7	2708.5	2501.0	2305.7	2215.9
71°	703.5	727.0	859.5	1183.8	1699.0	2202.0	2718.9	2734.6	2510.6	2296.1	2092.2
72.5°	345.2	373.1	539.6	833.4	1398.3	2005.0	2638.7	2669.2	2450.4	2176.7	1788.8
75°	89.8	95.0	161.3	340.8	749.7	1328.5	2127.9	2205.5	2003.2	1657.2	1093.2
77.5°	56.7	58.4	75.8	132.5	280.7	504.7	1250.1	1288.4	1144.6	839.5	385.3
80°	40.1	41.0	47.9	85.4	163.9	147.3	449.8	466.4	414.1	222.3	68.9
82.5°	24.4	24.4	34.9	54.9	101.1	80.2	118.6	126.4	111.6	61.9	22.7
85°	13.9	14.8	21.8	37.5	47.9	39.2	44.5	47.1	47.9	41.0	9.6
87.5°	11.3	12.2	19.2	31.4	26.2	19.2	19.2	20.0	20.9	24.4	4.4
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°	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8	422.8
2.5°	421.0	421.0	421.9	421.0	421.0	421.0	421.9	421.9	421.9	423.7	424.5
5°	422.8	422.8	422.8	421.9	421.0	421.0	422.8	423.7	423.7	426.3	426.3
7.5°	427.1	427.1	425.4	423.7	421.9	419.3	420.2	421.0	420.2	421.0	421.0
10°	436.7	436.7	434.1	430.6	425.4	417.6	407.1	394.0	381.8	377.5	375.7
12.5°	452.4	451.6	446.3	440.2	428.9	401.9	362.6	316.4	278.1	267.6	264.1
15°	469.9	468.1	462.0	451.6	421.0	349.6	267.6	208.3	171.7	163.0	161.3
17.5°	488.2	485.6	476.8	455.9	385.3	259.8	172.6	130.8	110.7	109.0	109.8
20°	507.3	503.9	491.7	447.2	311.2	173.5	111.6	101.1	99.4	99.4	100.2
22.5°	529.1	524.8	508.2	415.8	226.7	115.1	95.9	95.0	94.1	93.3	93.3
25°	554.4	549.2	523.9	359.2	156.0	94.1	91.5	88.9	87.2	85.4	84.6
27.5°	584.9	578.0	536.1	289.4	107.2	88.0	86.3	81.9	78.5	75.0	75.0
30°	615.4	606.7	532.6	217.9	87.2	81.9	78.5	73.2	68.0	64.5	63.6
32.5°	647.7	639.0	510.0	146.5	79.3	75.0	70.6	62.8	56.7	52.3	51.4
35°	695.6	688.7	465.5	96.8	71.5	66.3	60.1	52.3	44.5	40.1	39.2
37.5°	767.1	758.4	410.6	74.1	62.8	54.9	49.7	41.0	33.1	28.8	27.9
40°	863.0	836.9	345.2	65.4	54.9	45.3	38.4	29.6	23.5	20.9	20.9
42.5°	974.6	912.7	274.6	59.3	48.8	37.5	27.9	20.0	16.6	15.7	15.7
45°	1093.2	983.3	204.0	54.9	42.7	29.6	20.0	13.9	12.2	11.3	11.3
47.5°	1215.2	1040.8	142.1	49.7	35.7	22.7	13.9	10.5	8.7	7.8	7.8
50°	1329.4	1078.3	100.2	44.5	30.5	16.6	10.5	7.8	6.1	6.1	6.1
52.5°	1408.7	1074.8	72.4	38.4	23.5	11.3	7.0	5.2	5.2	5.2	5.2
55°	1478.5	1061.8	56.7	33.1	18.3	7.8	5.2	4.4	4.4	3.5	3.5
57.5°	1537.7	1040.8	47.9	27.0	13.1	6.1	3.5	3.5	2.6	2.6	2.6
60°	1588.3	1014.7	40.1	22.7	8.7	4.4	2.6	1.7	1.7	0.9	1.7
62.5°	1657.2	998.1	34.9	17.4	6.1	2.6	1.7	0.9	0.9	0.0	0.0
65°	1707.7	966.8	29.6	12.2	3.5	1.7	0.9	0.9	0.0	0.0	0.0
67.5°	1709.5	910.1	21.8	7.0	2.6	1.7	0.9	0.0	0.0	0.0	0.0
70°	1571.7	775.8	13.9	3.5	1.7	0.9	0.9	0.0	0.0	0.0	0.0
71°	1445.3	686.9	11.3	2.6	1.7	0.9	0.0	0.0	0.0	0.0	0.0
72.5°	1190.8	504.7	8.7	2.6	0.9	0.9	0.0	0.0	0.0	0.0	0.0
75°	656.4	183.1	4.4	1.7	0.9	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	210.1	55.8	2.6	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	35.7	8.7	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	12.2	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)