

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: P214795

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214795
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-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 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: 4389.5 lumens
Efficiency: N/A
Efficacy: 82.8 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

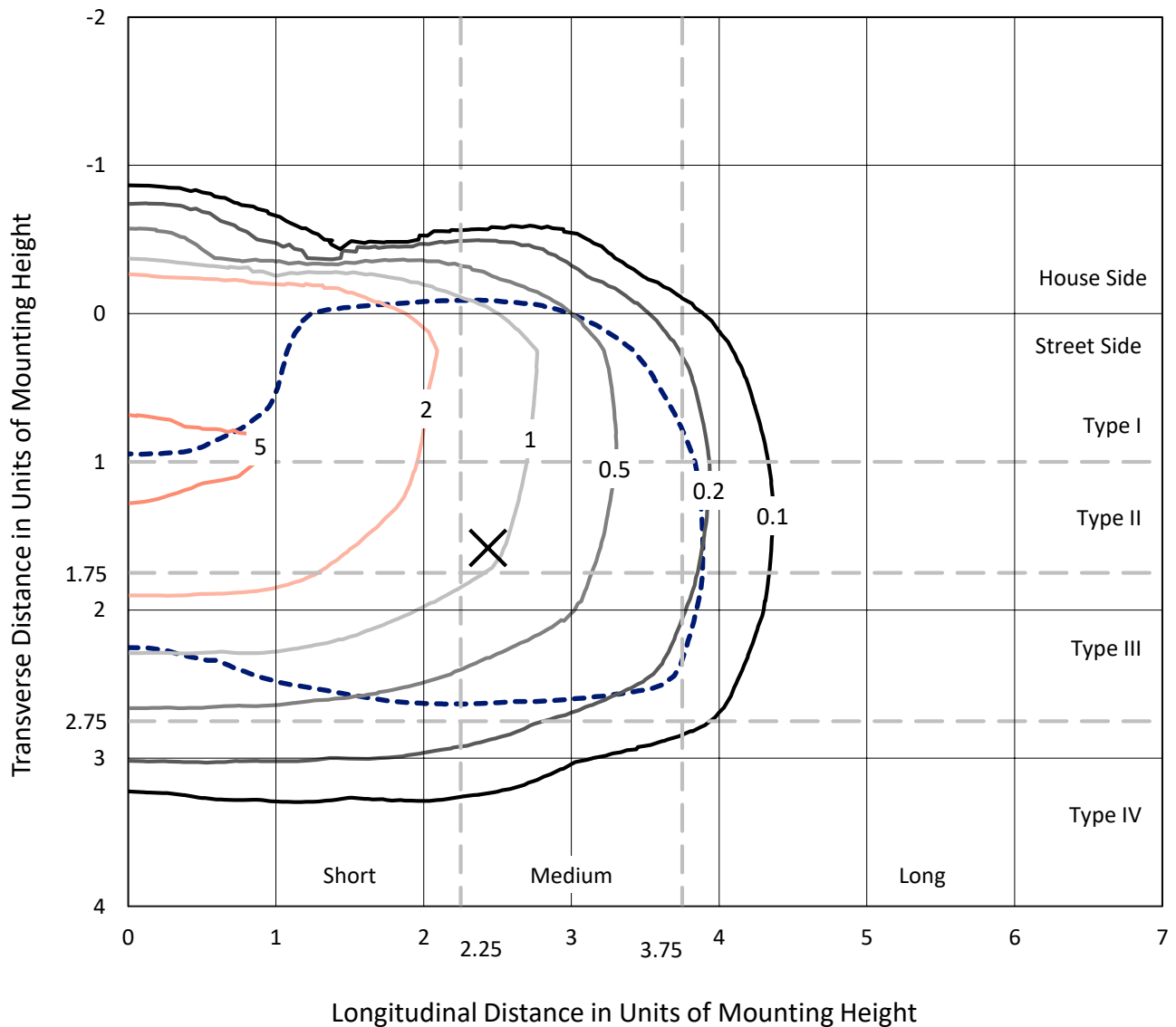
Input Watts (W): 53
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

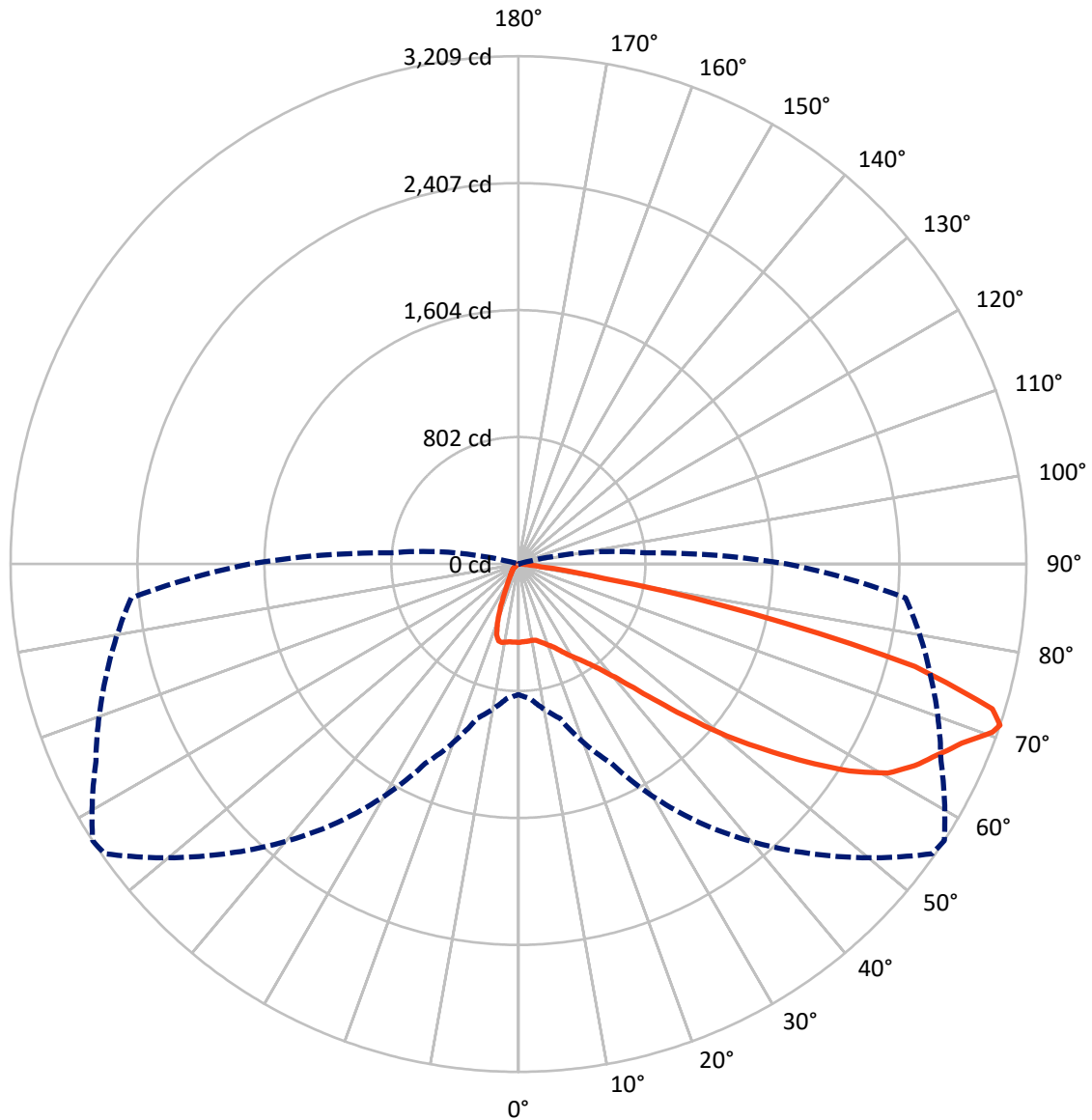
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.2 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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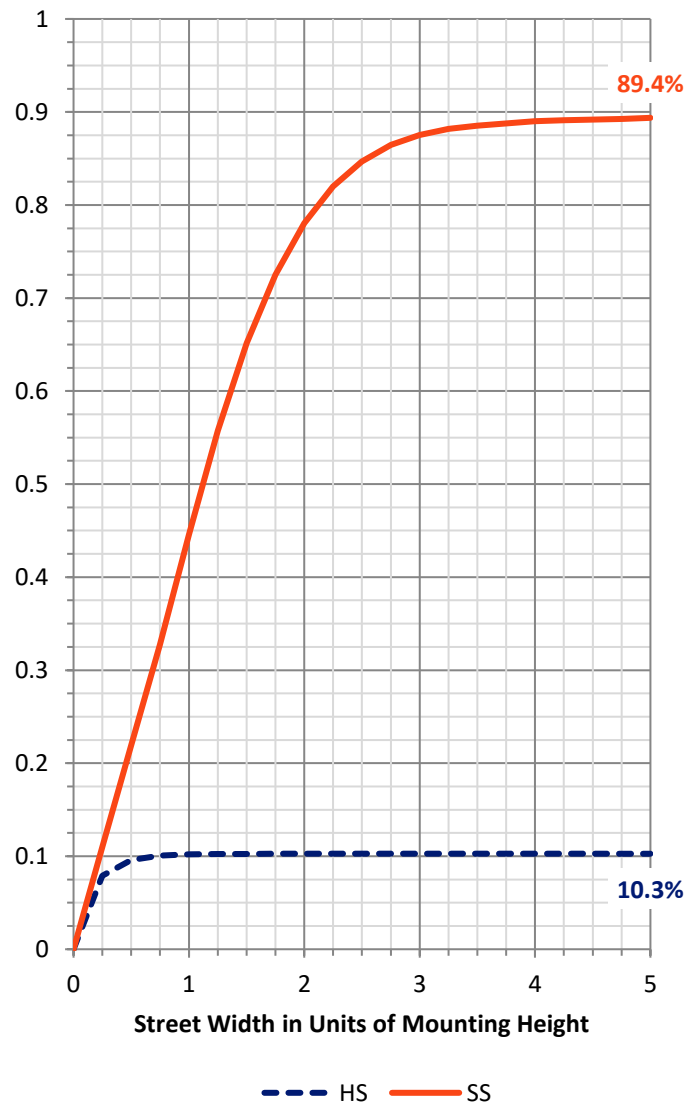
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	454.9	0.0	454.9
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	3934.6	0.0	3934.6
	% Fixture	89.6	0.0	89.6
Total	Lumens	4389.5	0.0	4389.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.6	1.1
10°-20°	124.6	2.8
20°-30°	194.3	4.4
30°-40°	328.4	7.5
40°-50°	637.9	14.5
50°-60°	1071.3	24.4
60°-70°	1278.4	29.1
70°-80°	673.7	15.3
80°-90°	34.2	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°	4389.5	100.0
0°-180°	4389.5	100.0

Coefficient of Utilization



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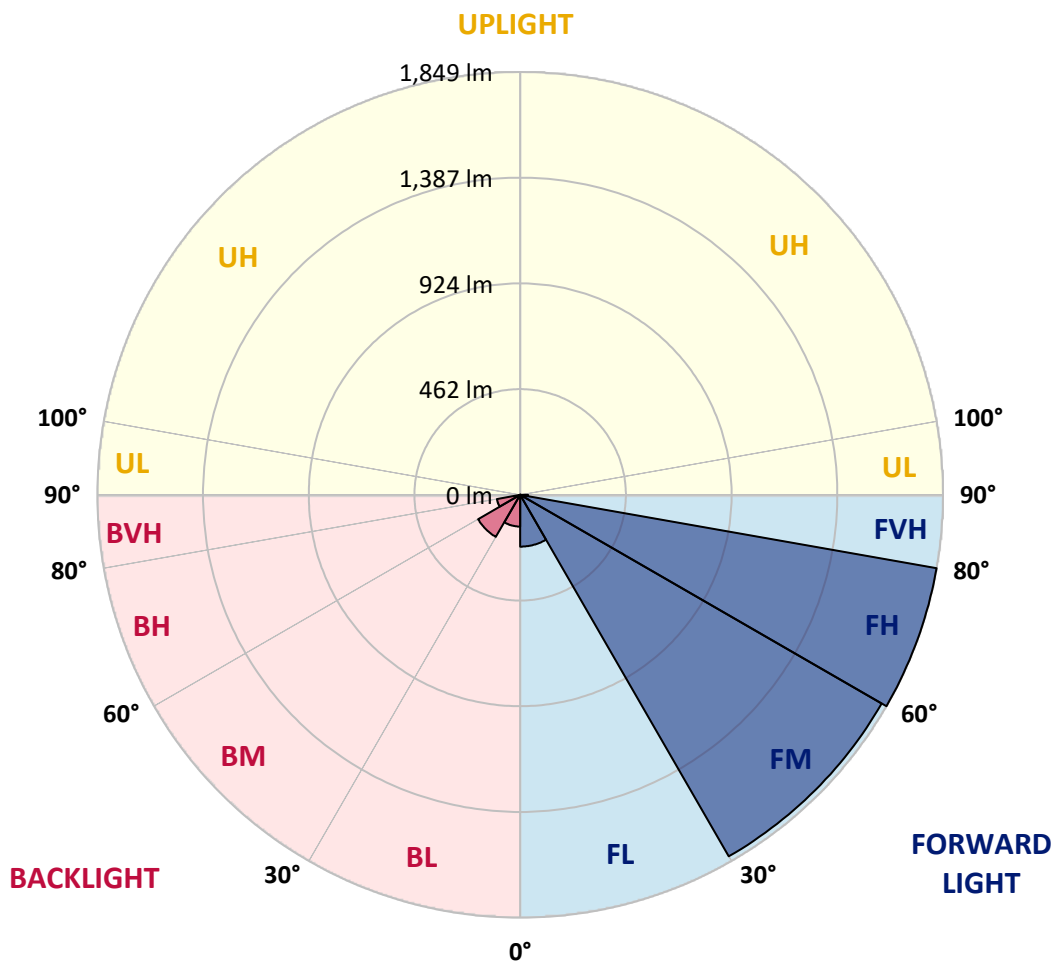
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	226.6	5.2			
FM	(30°-60°)	1825.2	41.6			
FH	(60°-80°)	1848.9	42.1			G2/5000
FVH	(80°-90°)	33.9	0.8			G1/100
BL	(0°-30°)	138.9	3.2	B1/500		
BM	(30°-60°)	212.4	4.8	B0/220		
BH	(60°-80°)	103.3	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-G2

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	496.0	496.0	496.0	496.0	496.0	496.0	496.0	496.0	496.0	496.0	496.0
2.5°	488.9	488.9	488.9	489.9	490.9	490.9	493.0	491.9	491.9	491.9	494.0
5°	475.7	476.7	477.6	479.7	483.8	486.8	491.9	491.9	493.0	495.0	496.0
7.5°	457.3	458.3	461.4	465.4	473.6	480.7	488.9	490.9	494.0	499.1	501.1
10°	446.0	448.1	452.1	457.3	466.5	475.7	485.8	488.9	498.1	507.3	512.4
12.5°	442.9	444.0	448.1	456.2	467.5	478.6	491.9	495.0	508.3	522.6	530.8
15°	448.1	449.1	451.1	460.3	473.6	487.8	505.2	509.3	525.7	542.1	552.3
17.5°	457.3	457.3	459.3	467.5	481.7	498.1	520.6	526.7	545.1	563.5	574.8
20°	463.4	463.4	466.5	474.6	490.9	512.4	539.0	547.2	567.6	588.1	598.3
22.5°	469.5	470.6	473.6	482.7	501.1	530.8	561.5	569.7	593.2	614.7	624.9
25°	486.8	485.8	486.8	495.0	516.5	553.3	592.2	602.4	627.0	650.5	655.6
27.5°	534.9	532.9	519.6	514.4	530.8	576.8	631.1	641.3	669.9	693.5	693.5
30°	645.4	641.3	608.6	566.6	553.3	598.3	667.9	682.2	719.0	739.5	733.4
32.5°	785.5	776.3	734.4	662.8	609.6	627.0	706.8	723.1	770.2	787.6	774.3
35°	939.0	937.9	885.8	793.7	718.0	686.3	756.9	776.3	835.6	851.0	829.5
37.5°	1101.6	1105.7	1070.9	944.1	855.1	783.5	823.4	845.9	918.5	936.9	916.5
40°	1282.7	1281.7	1268.4	1118.0	1019.8	921.6	919.5	940.0	1028.0	1056.6	1028.0
42.5°	1511.7	1509.7	1461.6	1326.7	1219.3	1101.6	1059.7	1066.8	1165.0	1212.1	1170.2
45°	1744.9	1730.6	1675.4	1558.8	1463.6	1324.6	1244.8	1244.8	1328.7	1393.2	1327.7
47.5°	1874.9	1860.5	1838.0	1773.6	1744.9	1589.5	1471.8	1457.5	1523.0	1588.4	1496.4
50°	2045.7	2045.7	1989.4	1964.9	2014.0	1904.5	1722.4	1708.1	1739.8	1792.0	1671.3
52.5°	2180.7	2156.2	2116.3	2137.8	2277.9	2227.8	1973.1	1945.4	1970.0	1983.3	1823.7
55°	2237.0	2213.5	2210.4	2289.2	2505.9	2436.4	2229.8	2205.3	2203.2	2137.8	1956.7
57.5°	2248.2	2227.8	2266.7	2404.7	2727.9	2607.2	2485.5	2467.1	2409.8	2246.2	2092.8
60°	2153.1	2163.3	2257.4	2468.1	2858.8	2755.5	2701.3	2681.9	2549.9	2338.3	2244.1
62.5°	1957.7	1982.3	2158.2	2474.2	2810.8	2815.9	2821.0	2807.7	2658.3	2422.0	2396.5
65°	1726.5	1733.7	1945.4	2389.3	2726.9	2797.5	2909.0	2907.9	2741.2	2516.2	2568.3
67.5°	1422.8	1435.0	1618.1	2103.0	2559.1	2789.3	3024.6	3021.5	2835.3	2623.6	2670.6
70°	1058.7	1074.0	1222.3	1635.5	2184.8	2687.0	3176.0	3178.0	2934.5	2705.4	2600.0
71°	825.4	853.0	1008.5	1389.1	1993.5	2583.7	3190.3	3208.7	2945.8	2694.1	2454.8
72.5°	405.1	437.8	633.1	977.8	1640.6	2352.6	3096.2	3132.0	2875.2	2554.0	2098.9
75°	105.4	111.5	189.2	400.0	879.6	1558.8	2496.7	2587.8	2350.5	1944.4	1282.7
77.5°	66.5	68.5	89.0	155.5	329.4	592.2	1466.7	1511.7	1343.0	985.0	452.1
80°	47.1	48.1	56.3	100.2	192.3	172.9	527.7	547.2	485.8	260.9	80.8
82.5°	28.6	28.6	40.9	64.4	118.7	94.1	139.1	148.3	130.9	72.6	26.6
85°	16.4	17.4	25.6	44.0	56.3	46.0	52.2	55.2	56.3	48.1	11.3
87.5°	13.3	14.3	22.5	36.8	30.7	22.5	22.5	23.5	24.6	28.6	5.1
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°	496.0	496.0	496.0	496.0	496.0	496.0	496.0	496.0	496.0	496.0	496.0
2.5°	494.0	494.0	495.0	494.0	494.0	494.0	495.0	495.0	495.0	497.1	498.1
5°	496.0	496.0	496.0	495.0	494.0	494.0	496.0	497.1	497.1	500.1	500.1
7.5°	501.1	501.1	499.1	497.1	495.0	491.9	493.0	494.0	493.0	494.0	494.0
10°	512.4	512.4	509.3	505.2	499.1	489.9	477.6	462.4	448.1	442.9	440.9
12.5°	530.8	529.8	523.6	516.5	503.2	471.6	425.5	371.3	326.3	314.0	310.0
15°	551.3	549.2	542.1	529.8	494.0	410.2	314.0	244.5	201.5	191.3	189.2
17.5°	572.8	569.7	559.5	534.9	452.1	304.8	202.5	153.4	129.9	127.9	128.9
20°	595.3	591.2	576.8	524.7	365.2	203.6	130.9	118.7	116.6	116.6	117.6
22.5°	620.8	615.7	596.3	487.8	266.0	135.0	112.5	111.5	110.5	109.5	109.5
25°	650.5	644.4	614.7	421.5	183.1	110.5	107.4	104.3	102.3	100.2	99.2
27.5°	686.3	678.1	629.0	339.6	125.8	103.3	101.3	96.2	92.1	88.0	88.0
30°	722.1	711.9	624.9	255.7	102.3	96.2	92.1	85.9	79.8	75.7	74.7
32.5°	760.0	749.7	598.3	171.9	93.1	88.0	82.9	73.7	66.5	61.4	60.4
35°	816.2	808.0	546.2	113.5	83.9	77.7	70.6	61.4	52.2	47.1	46.0
37.5°	900.1	889.9	481.7	87.0	73.7	64.4	58.3	48.1	38.9	33.8	32.7
40°	1012.6	981.9	405.1	76.7	64.4	53.2	45.0	34.8	27.6	24.6	24.6
42.5°	1143.6	1070.9	322.2	69.6	57.3	44.0	32.7	23.5	19.4	18.4	18.4
45°	1282.7	1153.8	239.4	64.4	50.1	34.8	23.5	16.4	14.3	13.3	13.3
47.5°	1425.9	1221.3	166.7	58.3	41.9	26.6	16.4	12.3	10.2	9.2	9.2
50°	1559.8	1265.3	117.6	52.2	35.8	19.4	12.3	9.2	7.2	7.2	7.2
52.5°	1652.9	1261.2	84.9	45.0	27.6	13.3	8.2	6.1	6.1	6.1	6.1
55°	1734.7	1245.9	66.5	38.9	21.5	9.2	6.1	5.1	5.1	4.1	4.1
57.5°	1804.3	1221.3	56.3	31.7	15.3	7.2	4.1	4.1	3.1	3.1	3.1
60°	1863.6	1190.6	47.1	26.6	10.2	5.1	3.1	2.0	2.0	1.0	2.0
62.5°	1944.4	1171.2	40.9	20.5	7.2	3.1	2.0	1.0	1.0	0.0	0.0
65°	2003.8	1134.4	34.8	14.3	4.1	2.0	1.0	1.0	0.0	0.0	0.0
67.5°	2005.8	1067.9	25.6	8.2	3.1	2.0	1.0	0.0	0.0	0.0	0.0
70°	1844.2	910.3	16.4	4.1	2.0	1.0	1.0	0.0	0.0	0.0	0.0
71°	1695.8	806.0	13.3	3.1	2.0	1.0	0.0	0.0	0.0	0.0	0.0
72.5°	1397.2	592.2	10.2	3.1	1.0	1.0	0.0	0.0	0.0	0.0	0.0
75°	770.2	214.8	5.1	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	246.5	65.5	3.1	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	41.9	10.2	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	14.3	4.1	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	4.1	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.0	1.0	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)