

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: P214921

Luminaire Tested: **ARCH-AF16-50-D-U-T4W-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214921
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-AF16-50-D-U-T4W-7030-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 980mA LIGHT ENGINE WITH 16 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4087.4 lumens
Efficiency: N/A
Efficacy: 77.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B0 - 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

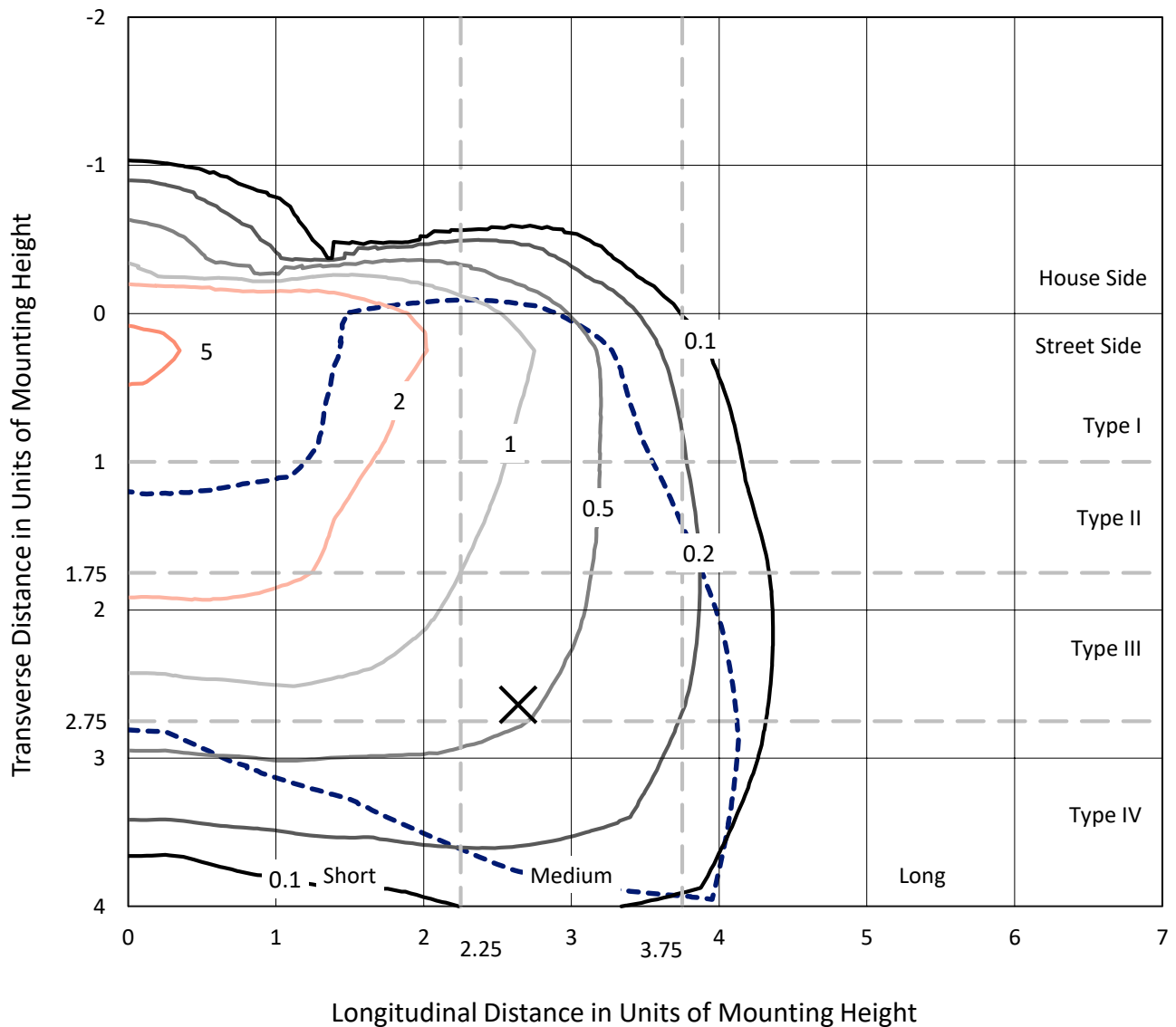


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

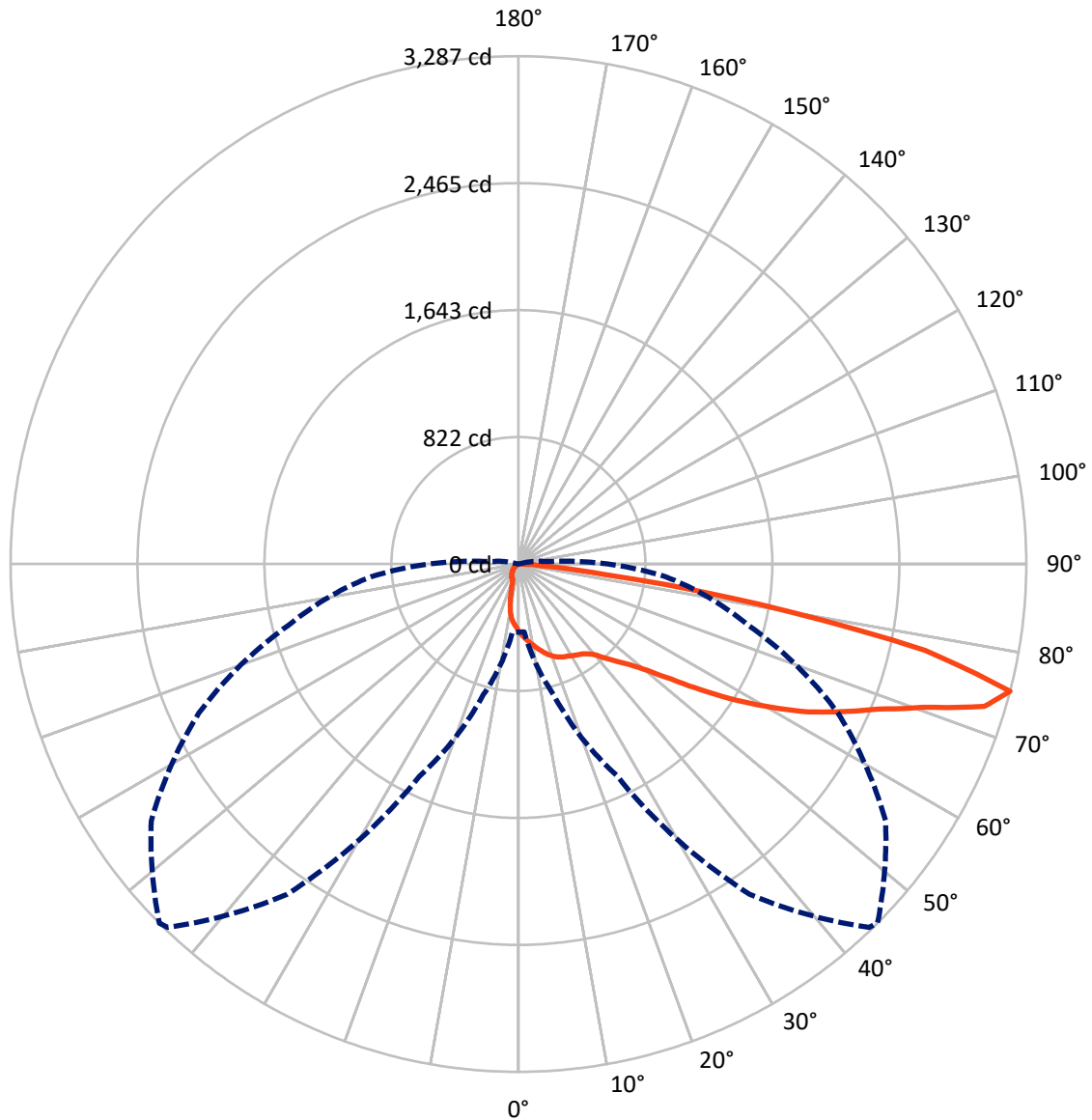


Based on 10 foot mounting height. Maximum calculated value = 5.8 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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



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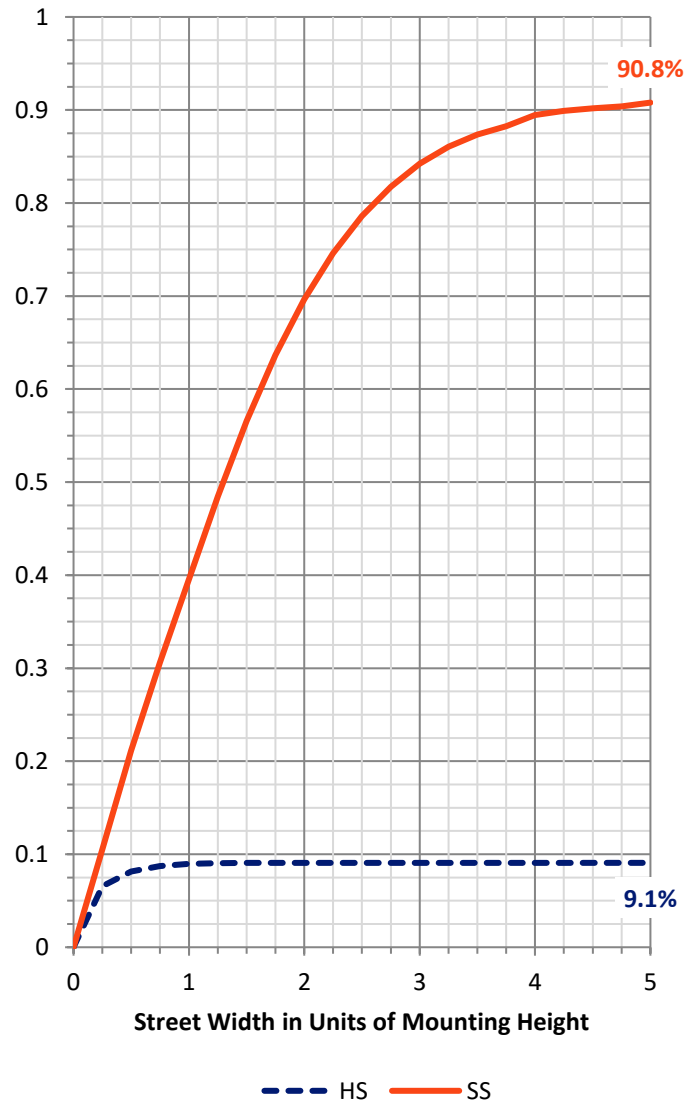
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	373.9	0.0	373.9
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	3713.5	0.0	3713.5
	% Fixture	90.9	0.0	90.9
Total	Lumens	4087.4	0.0	4087.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.3	1.0
10°-20°	116.9	2.9
20°-30°	193.6	4.7
30°-40°	280.2	6.9
40°-50°	458.8	11.2
50°-60°	817.4	20.0
60°-70°	1201.7	29.4
70°-80°	906.6	22.2
80°-90°	71.1	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°	4087.4	100.0
0°-180°	4087.4	100.0

Coefficient of Utilization



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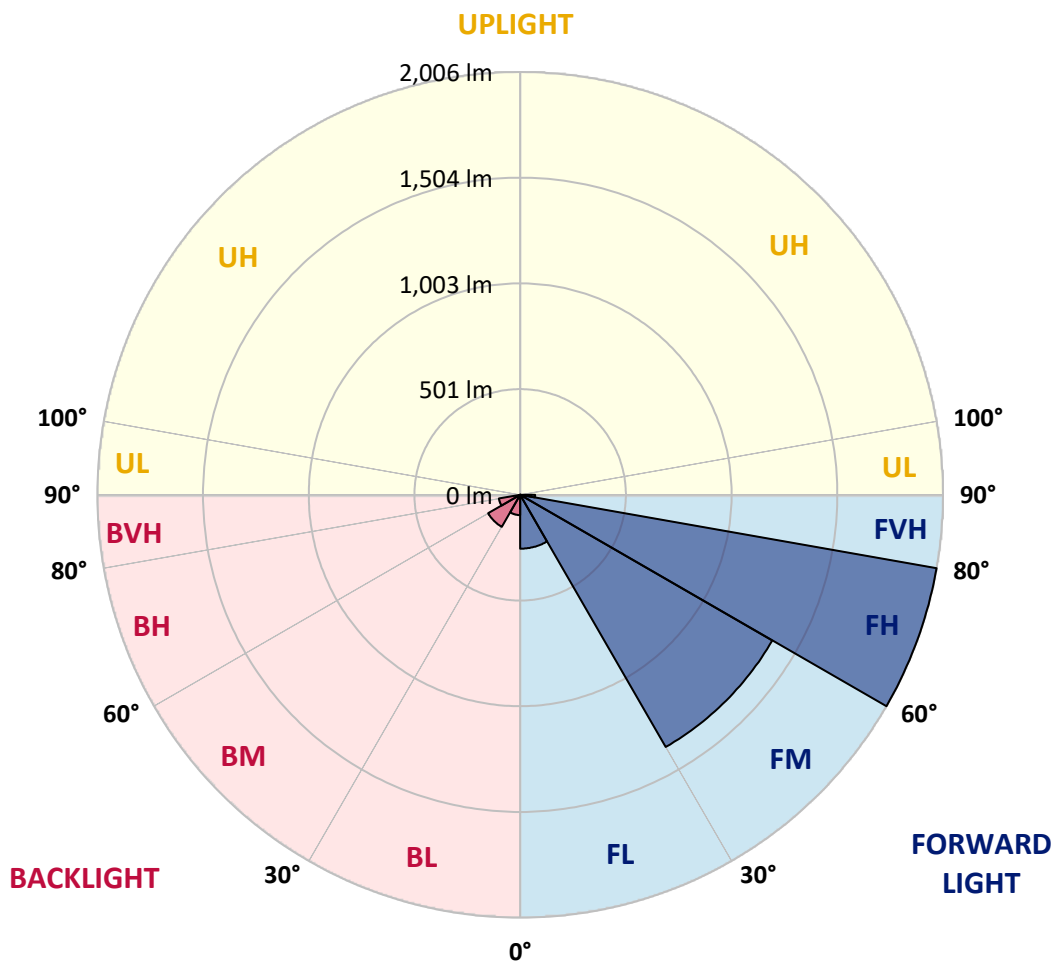
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	255.7	6.3			
FM	(30°-60°)	1381.1	33.8			
FH	(60°-80°)	2005.8	49.1			G2/5000
FVH	(80°-90°)	70.9	1.7			G1/100
BL	(0°-30°)	96.1	2.4	B0/110		
BM	(30°-60°)	175.2	4.3	B0/220		
BH	(60°-80°)	102.4	2.5	B0/110		G0/110
BVH	(80°-90°)	0.2	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B0-U0-G2

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	437.1	437.1	437.1	437.1	437.1	437.1	437.1	437.1	437.1	437.1	437.1
2.5°	474.8	474.8	473.9	473.0	468.0	463.3	462.2	459.4	450.7	444.9	439.1
5°	514.5	515.4	513.6	508.7	498.1	487.6	486.5	478.8	462.2	450.7	438.1
7.5°	552.3	554.2	549.3	540.7	528.0	512.7	511.7	497.1	475.9	459.4	441.1
10°	584.2	584.2	577.4	566.7	553.2	536.8	534.9	518.4	494.2	473.9	449.7
12.5°	619.0	618.1	608.3	593.9	578.4	562.9	561.9	541.6	518.4	492.3	462.2
15°	650.9	649.0	636.4	622.9	606.4	590.0	589.0	568.7	544.5	513.6	480.7
17.5°	668.3	667.3	655.8	642.2	628.7	616.1	615.1	593.9	567.7	535.8	499.1
20°	671.2	672.2	662.5	650.9	643.2	636.4	636.4	617.1	589.0	555.1	518.4
22.5°	672.2	675.1	668.3	652.9	650.9	651.8	653.8	638.3	609.3	577.4	538.7
25°	678.9	682.9	678.0	659.6	657.7	664.4	666.4	659.6	633.4	601.6	561.9
27.5°	692.4	696.4	692.4	669.3	666.4	673.1	675.1	678.9	659.6	624.9	586.0
30°	719.6	720.6	711.9	682.9	677.1	685.7	688.7	699.3	683.9	647.1	609.3
32.5°	767.0	757.2	731.2	692.4	687.7	697.3	700.3	711.9	706.1	668.3	633.4
35°	863.7	813.4	753.5	706.1	701.2	710.8	714.8	731.2	734.1	698.2	663.5
37.5°	862.7	817.3	805.7	732.1	725.4	732.1	737.0	757.2	768.9	737.9	707.0
40°	923.7	904.3	904.3	781.5	759.3	768.9	773.8	794.1	814.4	790.2	758.3
42.5°	1115.2	1102.7	1089.1	876.3	806.7	833.7	836.6	849.2	873.4	865.7	827.8
45°	1328.9	1317.3	1265.1	1036.9	887.8	892.7	899.5	919.8	954.6	969.1	924.7
47.5°	1496.2	1484.7	1440.1	1230.3	1014.6	972.0	972.0	1011.6	1065.9	1102.7	1060.1
50°	1630.7	1617.1	1590.0	1436.3	1222.5	1086.1	1080.3	1126.8	1207.1	1264.1	1235.0
52.5°	1761.3	1721.6	1705.1	1649.0	1457.5	1251.6	1236.0	1268.9	1380.2	1450.8	1426.6
55°	1848.3	1842.4	1825.0	1844.4	1704.2	1452.7	1439.2	1445.9	1585.3	1632.7	1602.7
57.5°	1929.5	1928.5	1967.2	2057.3	1973.1	1682.9	1661.7	1651.0	1783.4	1771.8	1798.0
60°	2030.1	2012.7	2102.7	2231.3	2219.7	1907.3	1883.1	1861.9	1935.3	1902.4	2032.1
62.5°	2035.0	2030.1	2212.9	2397.7	2464.4	2135.6	2107.5	2031.1	2067.8	2030.1	2255.4
65°	1850.2	1874.5	2259.4	2485.6	2669.4	2335.8	2301.9	2182.9	2185.8	2160.7	2518.5
67.5°	1808.7	1821.3	2131.6	2580.4	2817.5	2537.9	2506.0	2358.1	2323.2	2325.1	2674.2
70°	1705.1	1724.5	1973.1	2573.7	2934.4	2807.8	2775.8	2615.2	2531.1	2437.3	2554.4
72.5°	1302.8	1335.7	1662.6	2256.4	2902.6	3160.8	3152.0	2941.3	2614.3	2238.0	1932.5
75°	441.1	440.1	873.4	1515.5	2607.6	3269.0	3286.5	2900.7	2280.7	1543.7	959.4
77.5°	94.8	95.7	180.0	614.1	1732.2	2625.0	2691.7	2187.8	1471.0	687.7	219.5
80°	46.4	47.4	74.6	162.5	692.4	1472.0	1576.5	1124.9	543.6	137.3	36.7
82.5°	23.2	24.1	38.7	86.1	256.3	523.3	559.1	414.0	155.7	77.3	18.3
85°	8.7	8.7	19.3	51.3	117.0	122.8	150.9	119.9	93.9	62.9	4.8
87.5°	1.9	1.9	10.6	25.1	52.2	38.7	38.7	36.7	57.1	42.5	1.9
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°	437.1	437.1	437.1	437.1	437.1	437.1	437.1	437.1	437.1	437.1	437.1
2.5°	436.2	432.3	425.6	418.8	414.0	408.2	405.3	402.4	401.4	400.4	402.4
5°	431.3	425.6	413.0	402.4	392.7	384.9	379.1	373.3	370.4	368.5	369.6
7.5°	431.3	422.7	404.3	387.9	372.3	355.9	339.5	326.9	317.3	311.4	312.4
10°	436.2	424.6	400.4	378.1	349.2	314.3	278.5	251.6	233.0	222.5	222.5
12.5°	446.9	431.3	401.4	366.6	317.3	256.3	202.1	169.3	155.7	147.9	148.9
15°	461.4	442.9	406.2	351.0	272.7	190.5	141.2	119.9	119.9	121.9	122.8
17.5°	477.8	457.5	410.0	327.9	215.7	136.3	111.2	109.3	112.2	117.0	117.0
20°	494.2	472.0	412.0	291.1	161.4	108.2	105.4	105.4	107.4	112.2	113.2
22.5°	514.5	490.3	410.0	245.7	121.0	102.4	101.5	101.5	101.5	107.4	107.4
25°	535.8	511.7	402.4	197.3	102.4	98.7	97.7	96.7	96.7	101.5	102.4
27.5°	560.0	533.8	383.9	150.9	96.7	94.8	93.9	91.9	91.9	95.7	95.7
30°	584.2	559.1	355.9	114.1	91.9	90.9	88.9	87.1	85.1	88.9	88.9
32.5°	610.3	585.2	319.1	90.9	85.1	85.1	84.1	81.3	79.3	81.3	82.2
35°	645.0	615.1	277.6	79.3	76.4	76.4	76.4	75.4	71.6	73.5	73.5
37.5°	691.5	656.7	229.2	73.5	69.6	67.7	67.7	67.7	64.8	65.8	65.8
40°	750.5	705.0	182.8	68.8	64.8	60.0	58.0	59.0	57.1	57.1	56.0
42.5°	830.8	757.2	137.3	64.8	60.9	54.2	50.3	49.2	47.4	46.4	46.4
45°	945.8	821.2	98.7	60.9	58.0	47.4	43.4	40.7	35.8	32.9	32.9
47.5°	1094.9	893.6	73.5	57.1	55.1	41.6	36.7	30.9	24.1	22.3	22.3
50°	1276.7	974.9	62.0	51.3	50.3	36.7	29.1	20.3	13.5	11.6	12.6
52.5°	1453.7	1051.3	55.1	45.5	44.5	31.9	21.3	10.6	5.8	5.8	5.8
55°	1602.7	1105.4	50.3	40.7	38.7	25.1	11.6	4.8	2.9	2.9	2.9
57.5°	1737.1	1136.4	45.5	35.8	30.9	17.4	4.8	1.9	1.9	1.0	1.0
60°	1859.9	1154.9	39.7	30.9	24.1	9.8	1.9	1.0	1.0	0.0	0.0
62.5°	1980.8	1168.3	33.9	25.1	18.3	3.9	1.0	1.0	0.0	0.0	0.0
65°	2072.6	1163.5	27.1	20.3	11.6	1.9	1.0	0.0	0.0	0.0	0.0
67.5°	2069.8	1097.7	20.3	15.6	5.8	1.0	0.0	0.0	0.0	0.0	0.0
70°	1851.2	924.7	13.5	9.8	1.9	1.0	0.0	0.0	0.0	0.0	0.0
72.5°	1313.4	592.8	8.7	5.8	1.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	578.4	180.0	4.8	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	113.2	41.6	2.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	27.1	4.8	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	11.6	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	2.9	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.9	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)