

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: P265876

Luminaire Tested: **ARCH-AF16-20-D-U-T4W-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265876
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-AF16-20-D-U-T4W-7027-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 420mA 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: 1830.5 lumens
Efficiency: N/A
Efficacy: 76.3 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 - G1

Input Watts (W): 24
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

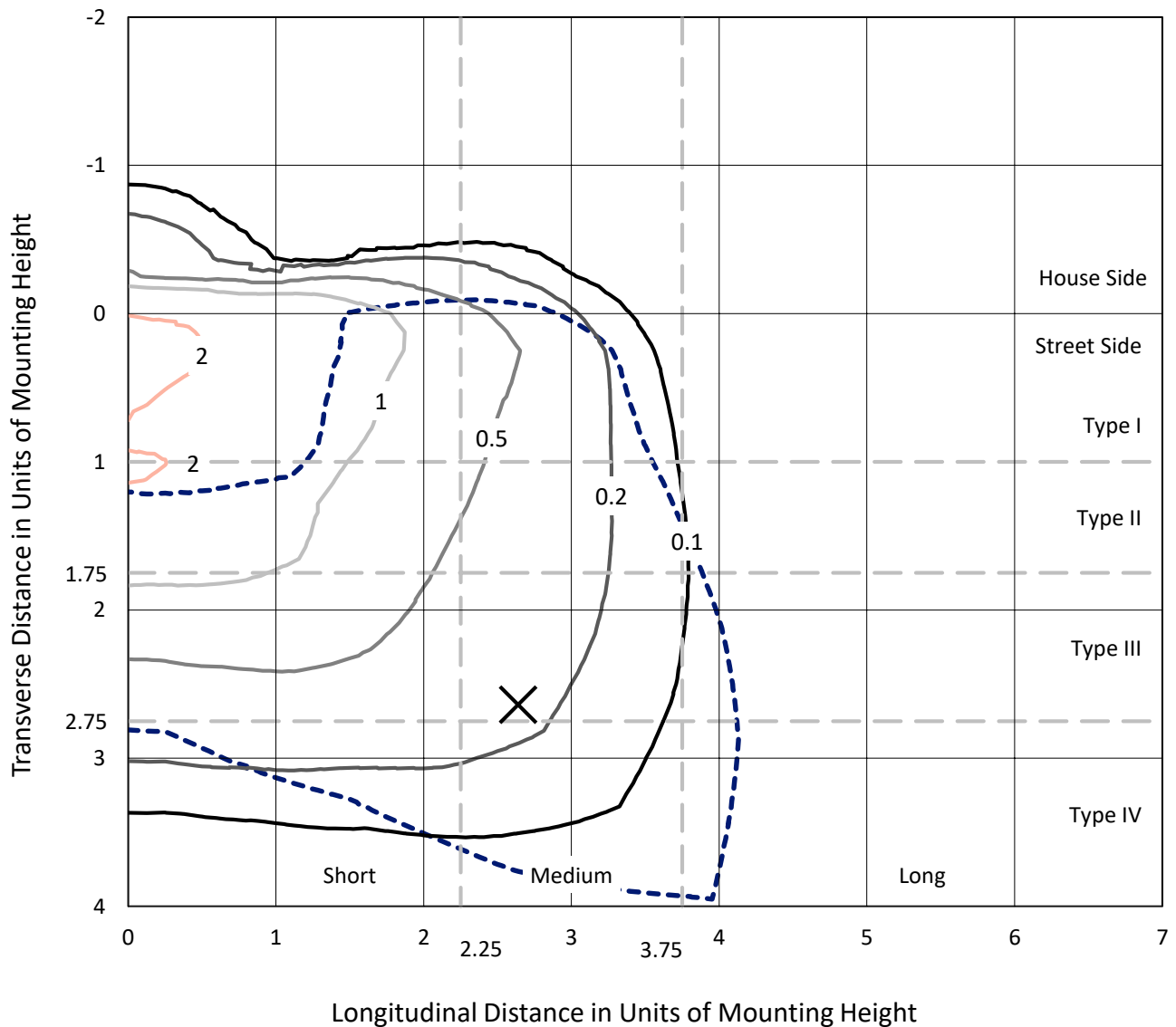


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

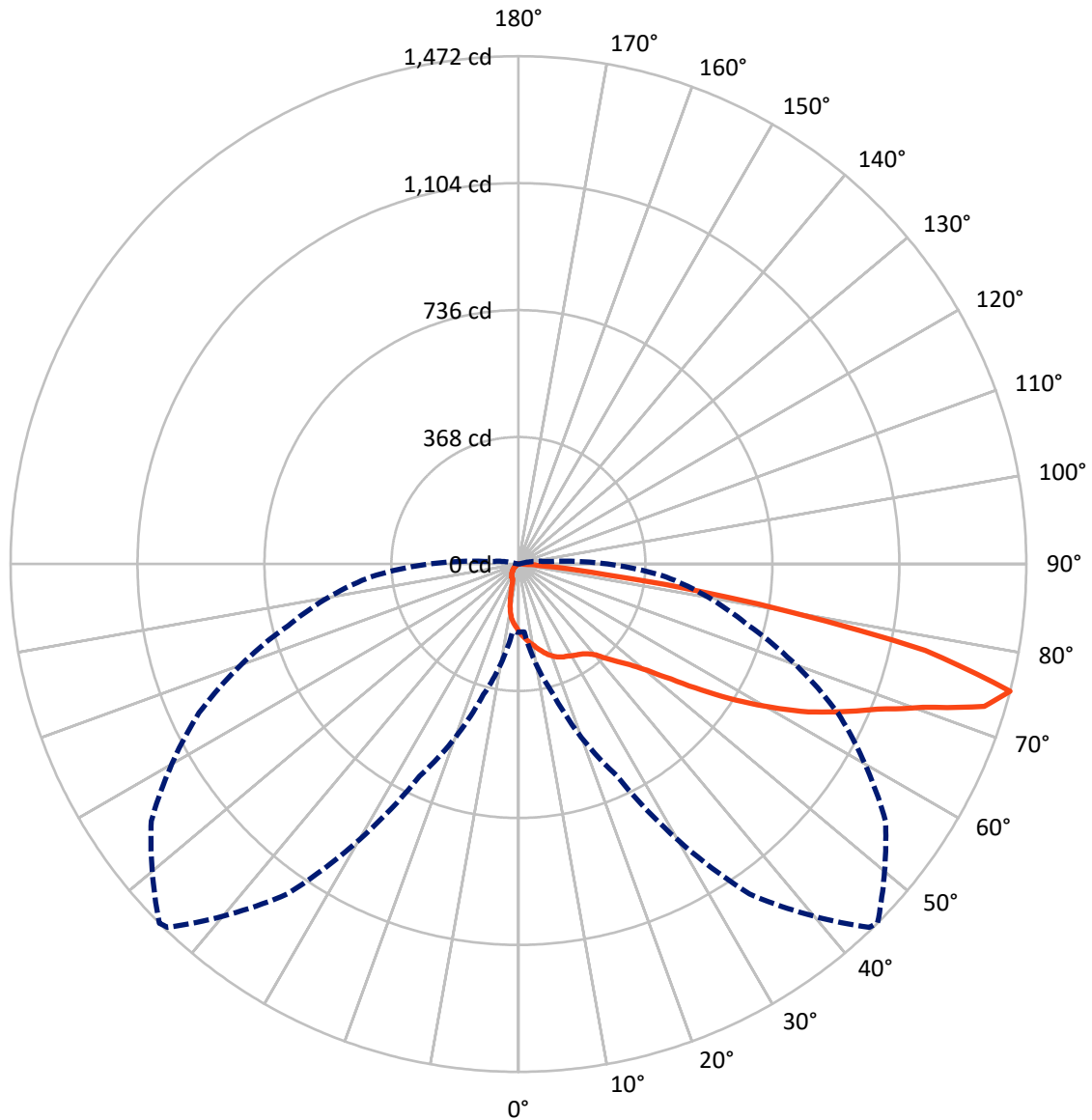


Based on 10 foot mounting height. Maximum calculated value = 2.6 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



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

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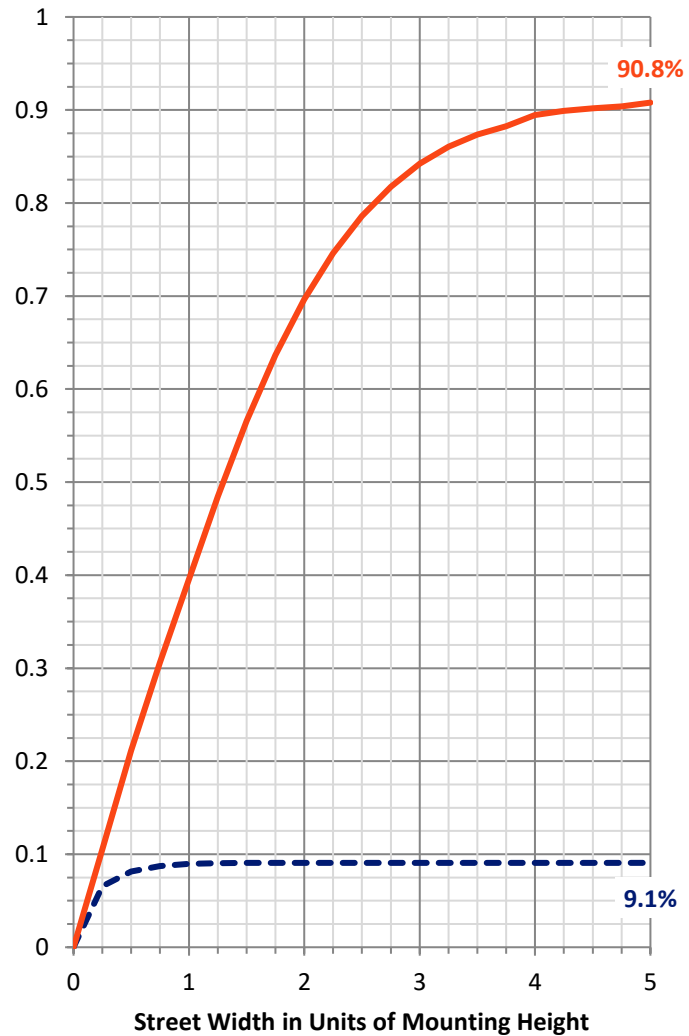
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	167.4	0.0	167.4
	% Fixture	9.1	0.0	9.1
Street Side	Lumens	1663.0	0.0	1663.0
	% Fixture	90.9	0.0	90.9
Total	Lumens	1830.5	0.0	1830.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	18.5	1.0
10°-20°	52.3	2.9
20°-30°	86.7	4.7
30°-40°	125.5	6.9
40°-50°	205.4	11.2
50°-60°	366.1	20.0
60°-70°	538.1	29.4
70°-80°	406.0	22.2
80°-90°	31.9	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°	1830.5	100.0
0°-180°	1830.5	100.0



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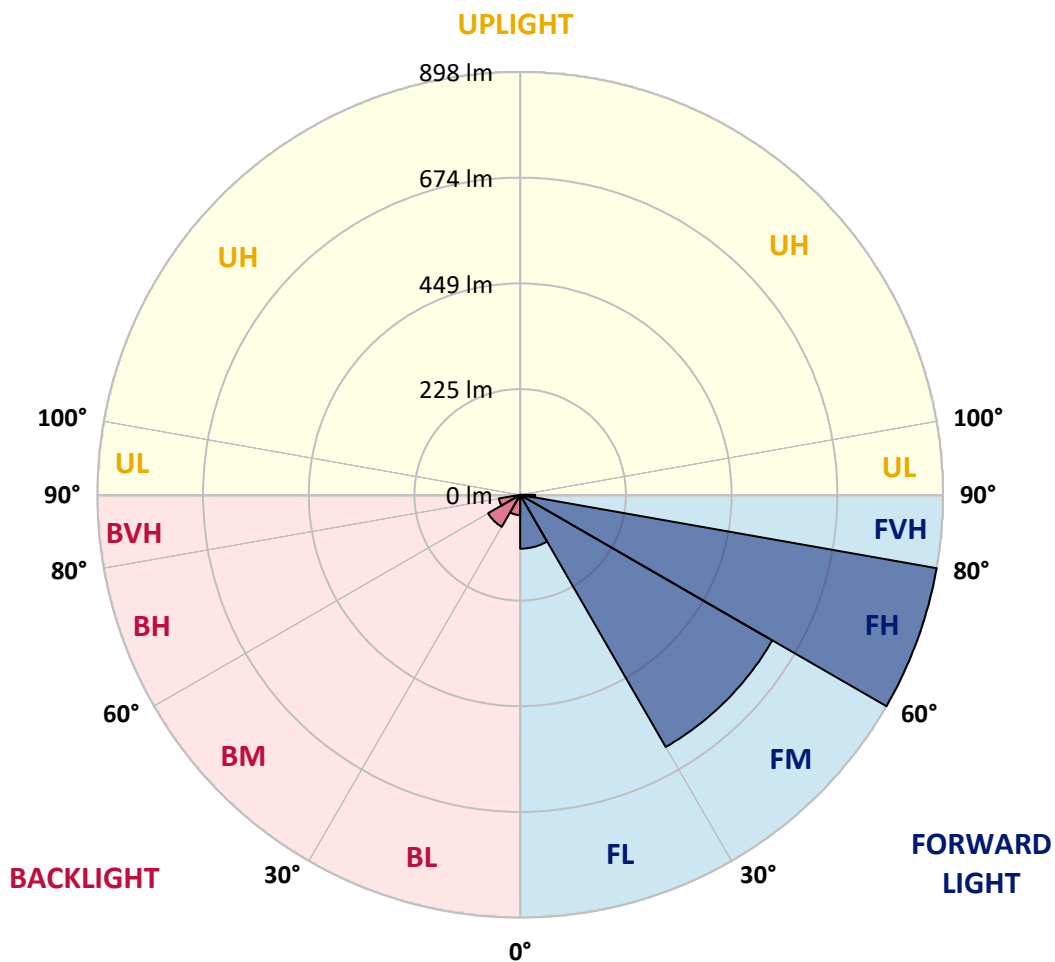
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	114.5	6.3			
FM	(30°-60°)	618.5	33.8			
FH	(60°-80°)	898.3	49.1			G1/1800
FVH	(80°-90°)	31.8	1.7			G1/100
BL	(0°-30°)	43.0	2.4	B0/110		
BM	(30°-60°)	78.5	4.3	B0/220		
BH	(60°-80°)	45.9	2.5	B0/110		G0/110
BVH	(80°-90°)	0.1	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-G1

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	44°	45°	55°	65°	75°	85°
0°	195.8	195.8	195.8	195.8	195.8	195.8	195.8	195.8	195.8	195.8	195.8
2.5°	212.7	212.7	212.2	211.8	209.7	207.5	207.0	205.7	201.8	199.2	196.6
5°	230.4	230.9	230.0	227.8	223.0	218.3	217.8	214.3	207.0	201.8	196.2
7.5°	247.4	248.2	246.0	242.2	236.6	229.5	229.2	222.6	213.1	205.7	197.4
10°	261.6	261.6	258.6	253.9	247.8	240.3	239.5	232.1	221.3	212.2	201.4
12.5°	277.1	276.8	272.5	266.0	259.0	252.1	251.6	242.5	232.1	220.4	207.0
15°	291.5	290.6	285.0	279.0	271.6	264.2	263.8	254.7	243.9	230.0	215.2
17.5°	299.2	298.9	293.7	287.5	281.6	275.9	275.5	266.0	254.2	239.9	223.5
20°	300.7	301.0	296.7	291.5	288.0	285.0	285.0	276.4	263.8	248.7	232.1
22.5°	301.0	302.3	299.2	292.4	291.5	291.9	292.8	285.9	272.8	258.6	241.3
25°	304.0	305.9	303.6	295.5	294.6	297.6	298.4	295.5	283.8	269.4	251.6
27.5°	310.2	311.8	310.2	299.8	298.4	301.6	302.3	304.0	295.5	279.8	262.5
30°	322.2	322.8	318.8	305.9	303.2	307.1	308.4	313.1	306.2	289.8	272.8
32.5°	343.5	339.1	327.4	310.2	307.9	312.3	313.6	318.8	316.3	299.2	283.8
35°	386.8	364.3	337.5	316.3	314.0	318.4	320.1	327.4	328.8	312.7	297.1
37.5°	386.4	366.0	360.8	327.9	324.8	327.9	330.0	339.1	344.3	330.4	316.7
40°	413.7	405.0	405.0	350.0	340.0	344.3	346.4	355.5	364.7	353.8	339.6
42.5°	499.4	493.8	487.7	392.4	361.3	373.3	374.7	380.3	391.1	387.7	370.8
45°	595.1	589.9	566.6	464.3	397.6	399.7	402.8	412.0	427.6	434.1	414.1
47.5°	670.0	664.8	645.0	550.9	454.4	435.3	435.3	453.0	477.3	493.8	474.8
50°	730.2	724.3	712.0	643.1	547.4	486.4	483.7	504.6	540.6	566.1	553.1
52.5°	788.7	770.9	763.6	738.4	652.8	560.5	553.5	568.3	618.0	649.7	638.9
55°	827.7	825.2	817.4	826.0	763.2	650.6	644.5	647.6	709.9	731.1	717.7
57.5°	864.1	863.7	881.0	921.3	883.7	753.7	744.2	739.3	798.8	793.6	805.2
60°	909.2	901.4	941.7	999.3	994.1	854.2	843.2	833.7	866.8	852.0	910.1
62.5°	911.3	909.2	991.0	1073.7	1103.7	956.3	943.8	909.5	926.1	909.2	1010.1
65°	828.5	839.5	1011.9	1113.2	1195.5	1046.0	1030.8	977.5	979.0	967.7	1127.9
67.5°	809.9	815.7	954.5	1155.6	1261.7	1136.5	1122.3	1056.0	1040.3	1041.2	1197.6
70°	763.6	772.4	883.7	1152.5	1314.1	1257.4	1243.2	1171.2	1133.5	1091.5	1143.9
72.5°	583.4	598.1	744.5	1010.6	1299.8	1415.5	1411.5	1317.2	1170.9	1002.2	865.3
75°	197.4	197.1	391.1	678.7	1167.7	1464.0	1471.9	1298.9	1021.4	691.2	429.7
77.5°	42.4	42.8	80.6	275.1	775.7	1175.5	1205.4	979.7	658.7	307.9	98.4
80°	20.8	21.2	33.3	72.8	310.2	659.3	706.0	503.7	243.4	61.5	16.4
82.5°	10.4	10.8	17.3	38.5	114.8	234.3	250.4	185.4	69.8	34.7	8.3
85°	4.0	4.0	8.7	22.9	52.5	54.9	67.6	53.7	42.0	28.1	2.2
87.5°	0.9	0.9	4.9	11.3	23.4	17.3	17.3	16.4	25.5	19.0	0.9
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°	195.8	195.8	195.8	195.8	195.8	195.8	195.8	195.8	195.8	195.8	195.8
2.5°	195.3	193.7	190.6	187.6	185.4	182.7	181.5	180.2	179.8	179.3	180.2
5°	193.1	190.6	185.0	180.2	175.9	172.4	169.8	167.2	165.8	165.0	165.5
7.5°	193.1	189.4	181.1	173.7	166.7	159.4	152.1	146.5	142.0	139.4	139.9
10°	195.3	190.1	179.3	169.4	156.3	140.8	124.8	112.6	104.5	99.6	99.6
12.5°	200.1	193.1	179.8	164.2	142.0	114.8	90.5	75.7	69.8	66.3	66.7
15°	206.6	198.3	181.8	157.3	122.1	85.2	63.2	53.7	53.7	54.5	54.9
17.5°	213.9	204.9	183.7	146.9	96.6	61.1	49.9	49.0	50.2	52.5	52.5
20°	221.3	211.5	184.5	130.3	72.4	48.5	47.3	47.3	48.1	50.2	50.7
22.5°	230.4	219.5	183.7	110.0	54.2	46.0	45.5	45.5	45.5	48.1	48.1
25°	239.9	229.2	180.2	88.4	46.0	44.1	43.7	43.3	43.3	45.5	46.0
27.5°	250.7	239.0	171.9	67.6	43.3	42.4	42.0	41.1	41.1	42.8	42.8
30°	261.6	250.4	159.4	51.2	41.1	40.8	39.9	38.9	38.1	39.9	39.9
32.5°	273.4	262.0	142.9	40.8	38.1	38.1	37.6	36.4	35.6	36.4	36.8
35°	289.0	275.5	124.3	35.6	34.2	34.2	34.2	33.7	32.1	32.9	32.9
37.5°	309.6	294.0	102.6	32.9	31.3	30.4	30.4	30.4	29.0	29.5	29.5
40°	336.1	315.8	81.8	30.7	29.0	26.9	26.1	26.4	25.5	25.5	25.2
42.5°	372.1	339.1	61.5	29.0	27.3	24.3	22.5	22.1	21.2	20.8	20.8
45°	423.6	367.8	44.1	27.3	26.1	21.2	19.6	18.1	16.0	14.7	14.7
47.5°	490.4	400.3	32.9	25.5	24.8	18.7	16.4	13.8	10.8	10.1	10.1
50°	571.7	436.5	27.7	22.9	22.5	16.4	12.9	9.2	6.1	5.2	5.6
52.5°	651.0	470.8	24.8	20.3	19.9	14.4	9.5	4.9	2.5	2.5	2.5
55°	717.7	495.1	22.5	18.1	17.3	11.3	5.2	2.2	1.3	1.3	1.3
57.5°	777.9	508.9	20.3	16.0	13.8	7.7	2.2	0.9	0.9	0.4	0.4
60°	832.9	517.2	17.7	13.8	10.8	4.3	0.9	0.4	0.4	0.0	0.0
62.5°	887.0	523.3	15.1	11.3	8.3	1.7	0.4	0.4	0.0	0.0	0.0
65°	928.2	521.0	12.1	9.2	5.2	0.9	0.4	0.0	0.0	0.0	0.0
67.5°	927.0	491.6	9.2	6.9	2.5	0.4	0.0	0.0	0.0	0.0	0.0
70°	829.0	414.1	6.1	4.3	0.9	0.4	0.0	0.0	0.0	0.0	0.0
72.5°	588.2	265.4	4.0	2.5	0.4	0.0	0.0	0.0	0.0	0.0	0.0
75°	259.0	80.6	2.2	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	50.7	18.7	1.3	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	12.1	2.2	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	5.2	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	1.3	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.9	0.4	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)