

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: P265980

Luminaire Tested: **ARCH-AF24-90-D-U-T2U-7027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265980  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1802-616-3)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-AF24-90-D-U-T2U-7027-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 1180mA LIGHT ENGINE WITH 24 LEDS AND TYPE II U OPTICS  
WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5819.2 lumens  
Efficiency: N/A  
Efficacy: 61.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B1 - U0 - G1

Input Watts (W): 94  
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

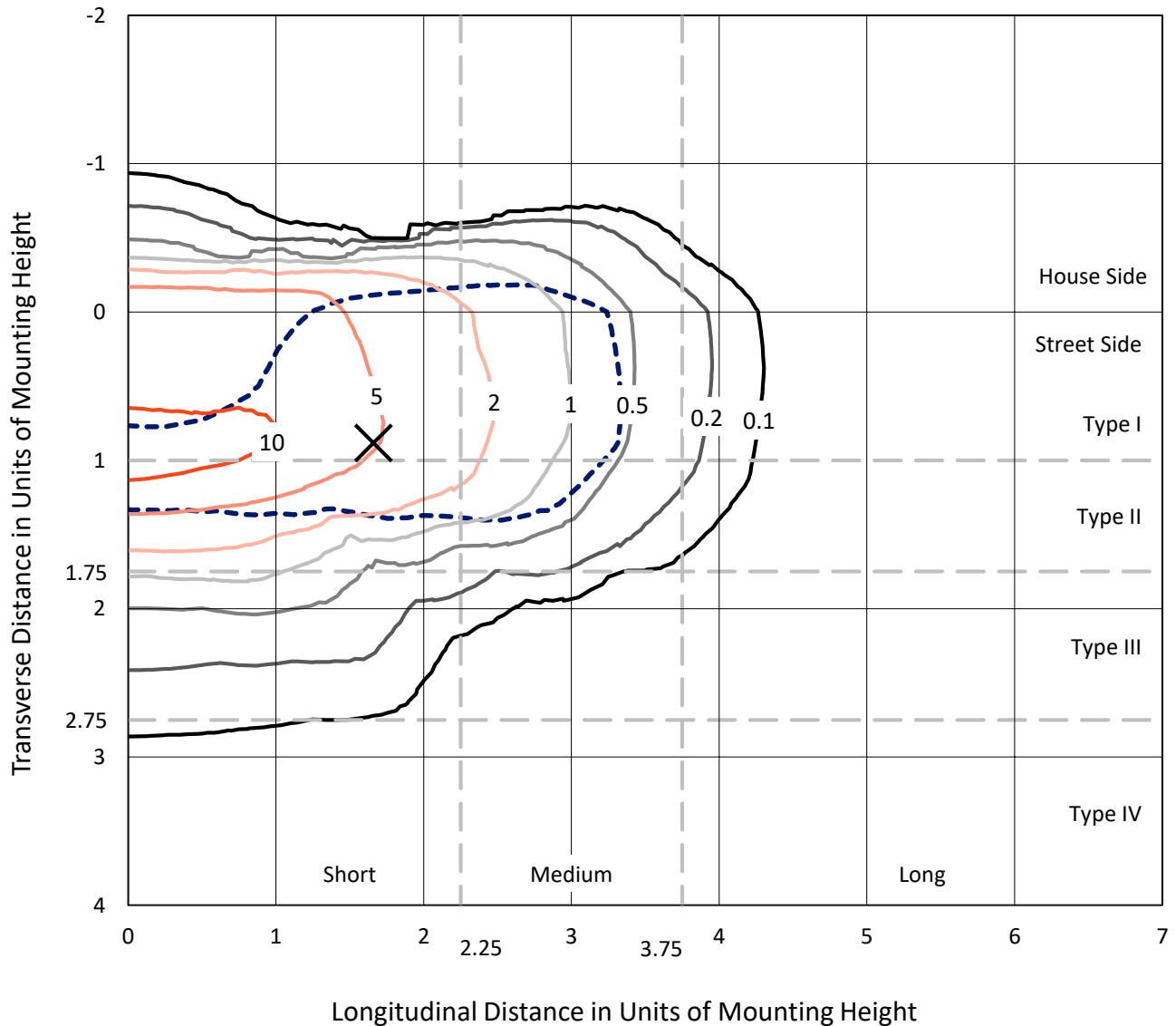


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### Iso-Footcandle Lines of Horizontal Illumination

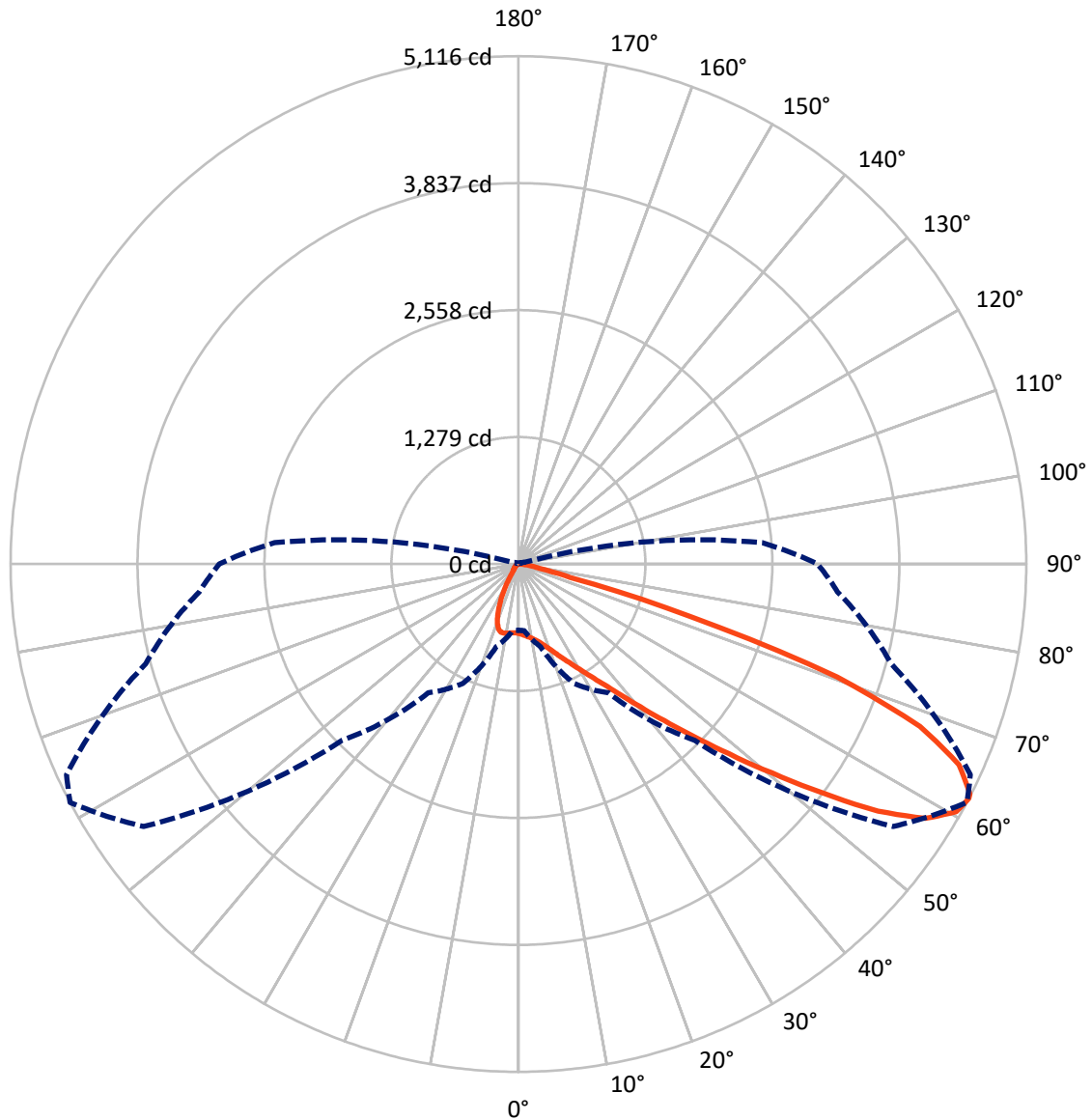
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 13.4 fc  
 Type II - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 62-Deg Lateral    - - - Horizontal Cone Through 62-Deg Vertical

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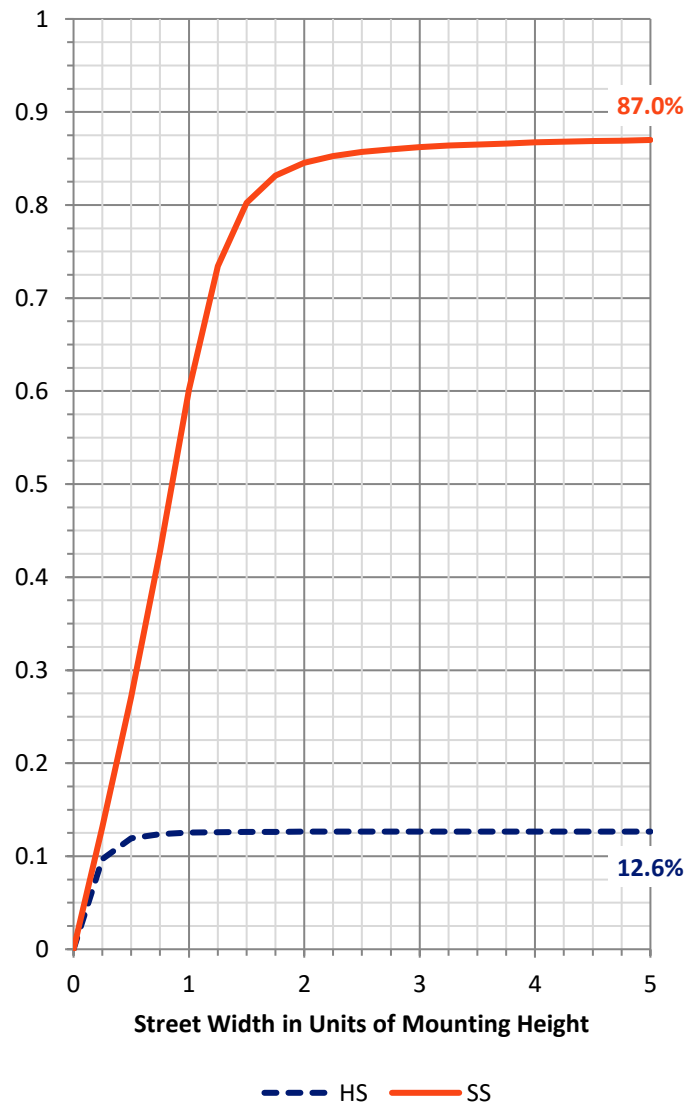
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	744.1	0.0	744.1
	% Fixture	12.8	0.0	12.8
<b>Street Side</b>	Lumens	5075.2	0.0	5075.2
	% Fixture	87.2	0.0	87.2
<b>Total</b>	Lumens	5819.2	0.0	5819.2
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	67.5	1.2
10°-20°	188.4	3.2
20°-30°	316.4	5.4
30°-40°	606.5	10.4
40°-50°	1238.8	21.3
50°-60°	1639.3	28.2
60°-70°	1273.5	21.9
70°-80°	459.7	7.9
80°-90°	29.3	0.5
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°	5819.2	100.0
0°-180°	5819.2	100.0

**Coefficient of Utilization**



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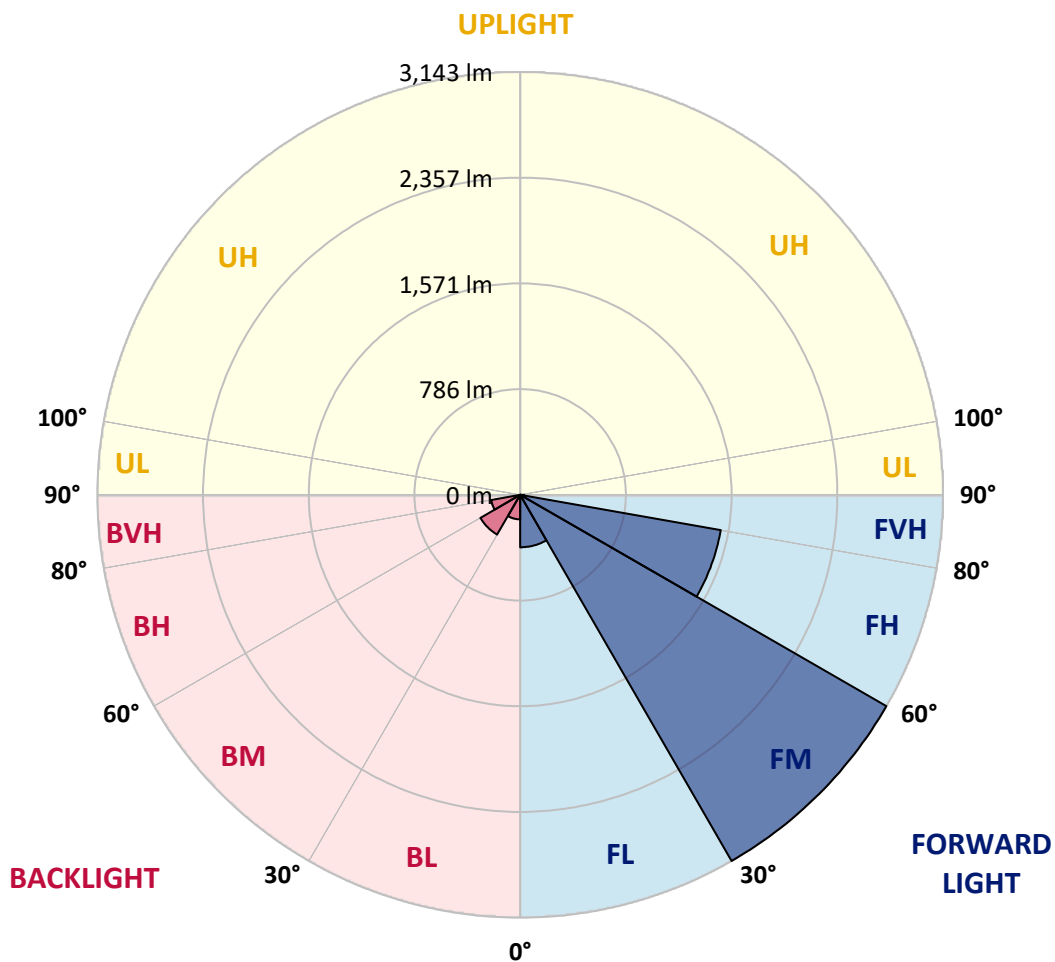
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	390.1	6.7			
FM	(30°-60°)	3143.0	54.0			
FH	(60°-80°)	1514.0	26.0			G1/1800
FVH	(80°-90°)	28.0	0.5			G1/100
BL	(0°-30°)	182.1	3.1	B1/500		
BM	(30°-60°)	341.6	5.9	B1/1000		
BH	(60°-80°)	219.1	3.8	B1/500		G1/500
BVH	(80°-90°)	1.3	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 II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	62°	65°	75°	85°
0°	700.9	700.9	700.9	700.9	700.9	700.9	700.9	700.9	700.9	700.9	700.9
2.5°	719.6	718.1	716.8	715.3	715.3	713.9	712.4	709.7	706.7	703.8	702.5
5°	732.5	731.0	729.7	731.0	729.7	729.7	728.2	725.3	722.4	718.1	713.9
7.5°	742.4	741.0	739.7	741.0	742.4	743.9	745.4	742.4	741.0	735.4	731.0
10°	755.4	753.9	752.5	755.4	755.4	762.5	764.0	762.5	761.0	756.8	749.6
12.5°	774.0	775.3	775.3	778.2	781.2	789.7	792.6	788.3	788.3	782.6	774.0
15°	808.2	808.2	808.2	811.2	812.5	824.0	826.9	822.6	825.5	815.4	806.9
17.5°	841.3	842.6	845.5	851.2	851.2	861.2	867.0	867.0	872.7	859.8	848.4
20°	874.1	875.6	879.8	892.6	892.6	905.6	915.6	919.9	925.7	912.8	892.6
22.5°	909.9	909.9	917.0	937.0	932.8	958.5	977.0	984.3	990.0	972.9	941.3
25°	964.2	958.5	964.2	982.8	980.1	1015.8	1050.1	1057.2	1064.4	1044.3	997.1
27.5°	1067.2	1058.7	1038.6	1040.1	1040.1	1081.5	1130.2	1140.2	1144.5	1127.4	1068.7
30°	1273.3	1273.3	1198.9	1148.8	1115.9	1153.1	1221.8	1238.9	1244.6	1218.9	1141.7
32.5°	1632.3	1632.3	1495.0	1367.7	1243.3	1243.3	1321.9	1353.3	1359.0	1329.0	1238.9
35°	2090.1	2087.2	1881.2	1706.7	1463.5	1371.9	1439.2	1492.2	1509.3	1469.3	1364.9
37.5°	2576.5	2558.0	2336.2	2135.9	1802.5	1578.0	1597.9	1668.2	1683.9	1650.9	1527.8
40°	2971.4	2949.9	2771.1	2603.6	2240.4	1907.0	1827.0	1891.3	1909.8	1864.2	1722.5
42.5°	3328.9	3276.1	3153.1	3032.9	2744.0	2476.4	2131.6	2157.4	2177.4	2128.8	1941.3
45°	3588.0	3506.4	3443.5	3406.4	3253.2	3101.6	2526.5	2475.0	2482.0	2422.0	2180.2
47.5°	3595.1	3538.0	3543.6	3640.9	3703.8	3698.1	3040.0	2856.9	2829.8	2729.6	2434.9
50°	3251.8	3284.7	3389.1	3666.6	4007.1	4213.1	3650.9	3308.9	3227.5	3047.2	2688.1
52.5°	2679.6	2731.0	2927.0	3394.9	4051.4	4552.3	4284.6	3825.4	3679.5	3361.9	2882.8
55°	2098.7	2101.6	2307.6	2783.9	3755.4	4613.8	4791.1	4393.4	4170.2	3600.9	3011.5
57.5°	1443.4	1522.2	1783.9	2104.4	3087.2	4307.6	4981.5	4834.0	4546.5	3748.2	3101.6
60°	945.6	949.9	1254.7	1625.2	2101.6	3504.9	4865.5	5067.2	4851.1	3835.5	3163.1
62°	666.6	673.8	862.6	1327.7	1583.7	2512.2	4609.5	5115.8	5022.9	3887.0	3227.5
62.5°	618.0	623.8	782.6	1253.2	1487.9	2253.2	4517.8	5104.3	5048.7	3904.2	3250.3
65°	453.6	453.6	512.2	861.2	1090.2	1217.5	3828.2	4877.0	5014.2	4041.5	3336.1
67.5°	350.5	353.4	373.3	530.8	822.6	738.1	2443.5	4364.8	4656.6	4244.6	3384.9
70°	301.9	300.5	314.8	352.0	593.7	490.7	1075.8	3406.4	3899.8	4193.1	3340.4
72.5°	223.1	224.5	257.5	308.9	413.4	319.0	486.4	1808.3	2529.3	3281.8	2862.7
75°	143.1	144.4	181.6	243.3	297.6	208.9	280.5	539.3	1035.7	1819.7	1751.1
77.5°	95.8	98.8	118.8	170.3	260.4	130.2	176.0	226.1	311.9	682.4	628.0
80°	64.4	64.4	75.8	114.4	164.5	108.8	94.4	150.1	161.7	211.7	105.9
82.5°	42.8	42.8	50.0	75.8	107.3	97.2	57.2	81.6	94.4	105.9	37.2
85°	25.7	25.7	34.3	47.3	70.1	54.3	37.2	45.8	48.7	67.3	20.0
87.5°	15.7	14.4	22.8	32.9	37.2	32.9	24.3	24.3	25.7	37.2	10.1
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°	700.9	700.9	700.9	700.9	700.9	700.9	700.9	700.9	700.9	700.9	700.9
2.5°	699.6	698.2	696.7	693.9	689.5	686.7	683.8	680.9	678.1	678.1	682.4
5°	712.4	708.1	702.5	696.7	688.1	682.4	678.1	672.4	669.5	669.5	670.9
7.5°	728.2	723.9	713.9	703.8	690.9	680.9	670.9	658.1	648.0	643.7	648.0
10°	745.4	739.7	725.3	709.7	695.3	669.5	636.5	596.6	562.2	546.4	553.6
12.5°	766.9	759.6	742.4	721.0	688.1	625.2	543.7	450.6	392.0	364.8	370.6
15°	798.2	788.3	764.0	731.0	658.1	522.2	389.1	281.8	227.5	204.5	207.5
17.5°	835.5	822.6	789.7	728.2	580.8	376.2	231.8	164.5	141.7	136.0	136.0
20°	875.6	858.4	815.4	706.7	463.5	236.1	144.4	125.9	117.3	113.0	113.0
22.5°	917.0	894.2	837.0	656.7	330.4	147.3	118.8	105.9	95.8	91.5	91.5
25°	967.0	937.0	858.4	569.3	210.4	118.8	101.6	88.8	78.7	72.9	74.4
27.5°	1025.8	987.1	876.9	460.7	136.0	102.9	84.4	71.5	62.9	60.0	60.0
30°	1087.3	1041.5	881.2	344.8	110.1	88.8	70.1	58.7	52.9	50.0	50.0
32.5°	1171.7	1111.7	868.4	228.9	93.0	74.4	58.7	48.7	44.3	42.8	42.8
35°	1283.3	1203.1	838.4	141.7	78.7	61.5	48.7	42.8	38.6	37.2	37.2
37.5°	1424.9	1330.5	785.4	97.2	67.3	50.0	41.5	37.2	34.3	32.9	32.9
40°	1613.7	1485.0	716.8	84.4	57.2	42.8	35.8	32.9	30.1	30.1	30.1
42.5°	1813.9	1672.4	628.0	74.4	48.7	37.2	31.5	28.7	27.2	25.7	25.7
45°	2033.0	1864.2	518.0	65.8	41.5	32.9	28.7	24.3	22.8	22.8	22.8
47.5°	2250.3	2061.5	397.7	57.2	35.8	28.7	24.3	21.5	20.0	18.5	18.5
50°	2473.6	2240.4	291.9	50.0	31.5	25.7	21.5	18.5	15.7	14.4	14.4
52.5°	2635.2	2347.6	213.2	42.8	27.2	21.5	17.2	14.4	11.5	10.1	10.1
55°	2753.9	2413.4	155.9	35.8	24.3	18.5	14.4	11.5	8.5	8.5	7.1
57.5°	2846.9	2444.8	117.3	31.5	21.5	15.7	11.5	8.5	7.1	5.7	5.7
60°	2918.5	2446.4	87.2	25.7	18.5	12.8	8.5	5.7	4.3	4.3	4.3
62°	3012.8	2464.9	71.5	21.5	17.2	11.5	7.1	4.3	2.9	1.4	1.4
62.5°	3040.0	2472.0	68.7	21.5	15.7	10.1	5.7	4.3	2.9	1.4	1.4
65°	3165.9	2485.0	52.9	17.2	12.8	8.5	4.3	2.9	0.0	0.0	0.0
67.5°	3280.4	2464.9	38.6	12.8	10.1	5.7	4.3	1.4	0.0	0.0	0.0
70°	3268.9	2327.6	27.2	8.5	7.1	4.3	2.9	0.0	0.0	0.0	0.0
72.5°	2693.8	1742.5	18.5	7.1	4.3	2.9	1.4	0.0	0.0	0.0	0.0
75°	1626.7	762.5	12.8	4.3	4.3	2.9	1.4	0.0	0.0	0.0	0.0
77.5°	533.7	276.0	8.5	2.9	2.9	1.4	1.4	0.0	0.0	0.0	0.0
80°	87.2	45.8	4.3	2.9	2.9	1.4	1.4	0.0	0.0	0.0	0.0
82.5°	27.2	11.5	2.9	2.9	1.4	1.4	0.0	0.0	0.0	0.0	0.0
85°	10.1	4.3	2.9	2.9	1.4	1.4	0.0	0.0	0.0	0.0	0.0
87.5°	4.3	2.9	2.9	2.9	1.4	1.4	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)