

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: P214813

Luminaire Tested: **ARCH-AF24-40-D-U-T3-7050-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214813  
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-AF24-40-D-U-T3-7050-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 5000K, 500mA LIGHT ENGINE WITH 24 LEDS AND TYPE III OPTICS  
WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3684 lumens  
Efficiency: N/A  
Efficacy: 92.1 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): 40  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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

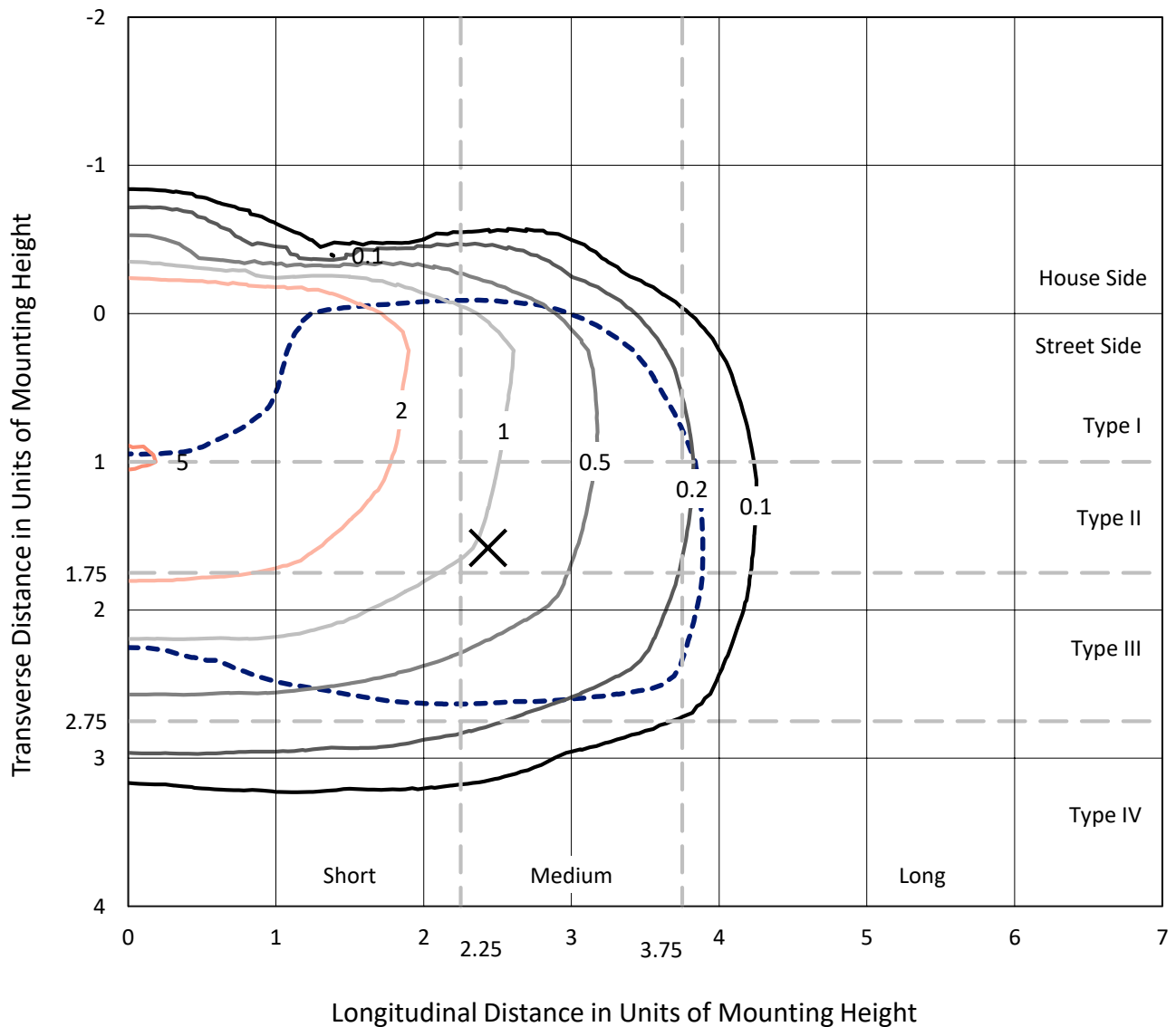


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

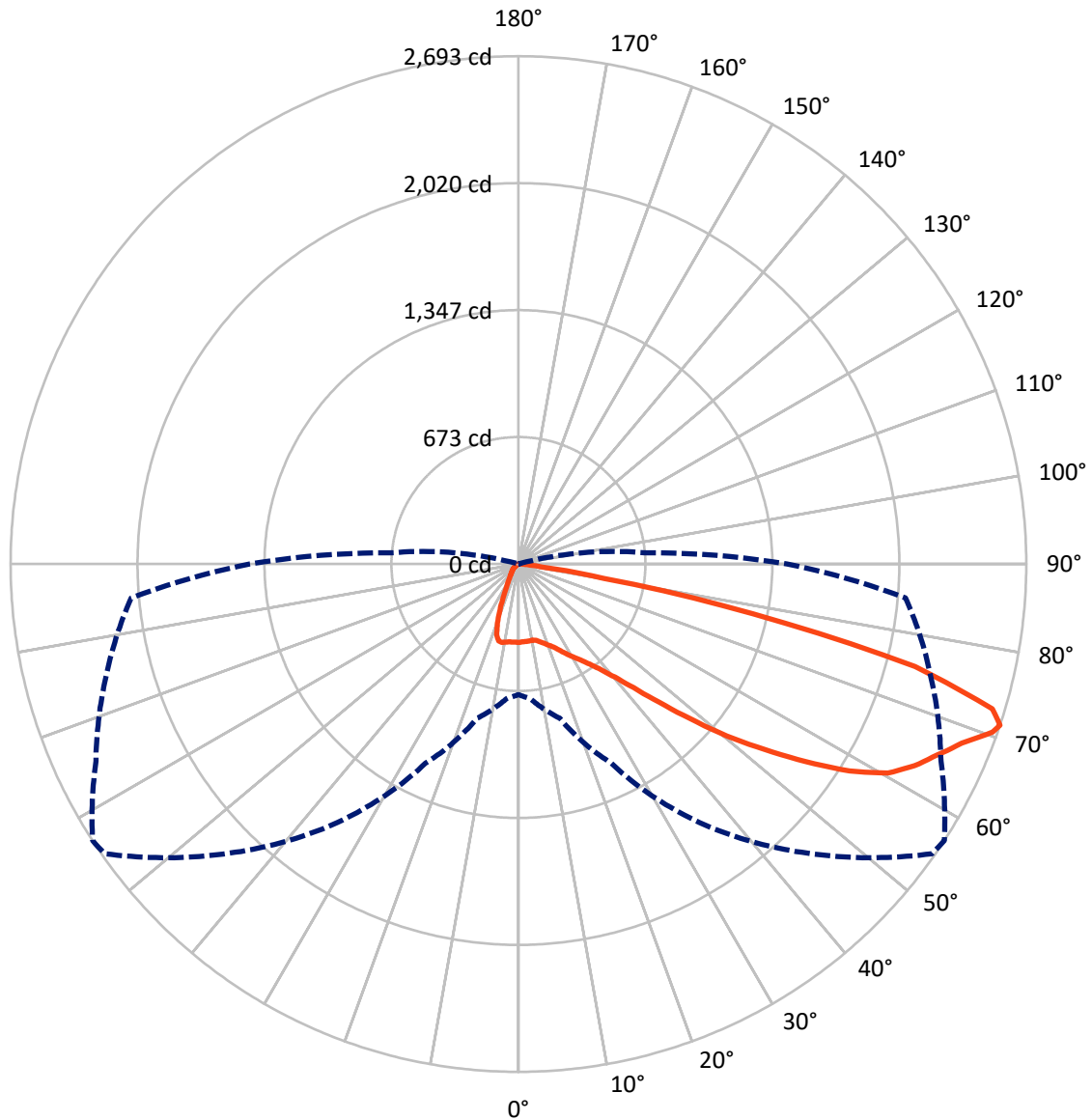


Based on 10 foot mounting height. Maximum calculated value = 5.2 fc  
 Type III - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



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

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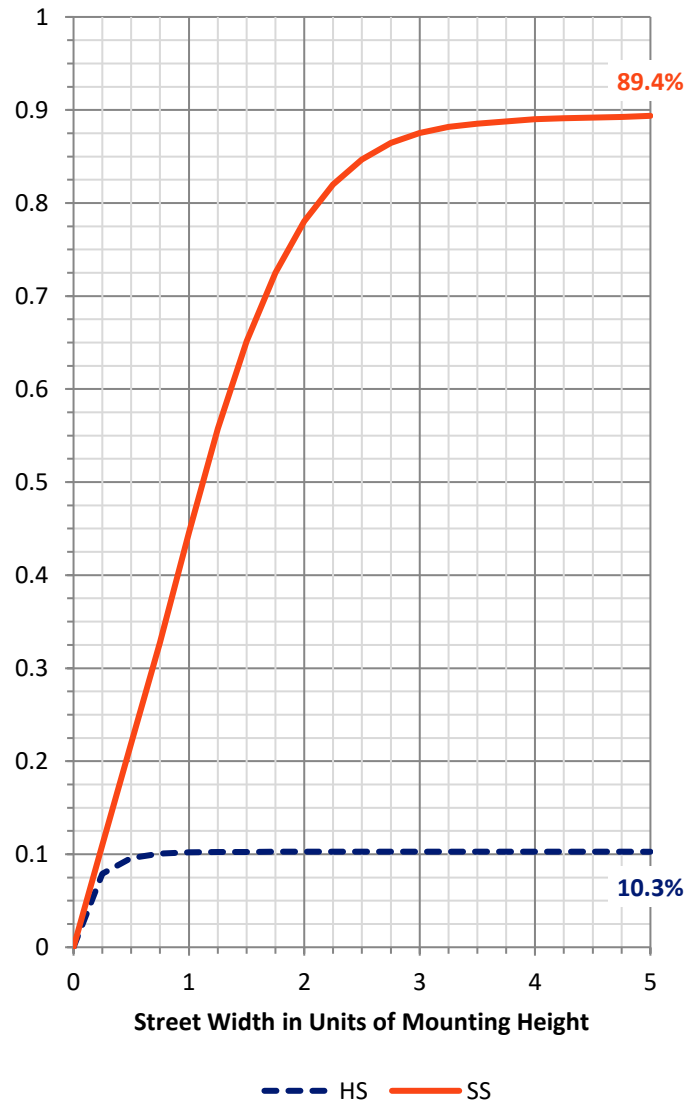
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	381.8	0.0	381.8
	% Fixture	10.4	0.0	10.4
<b>Street Side</b>	Lumens	3302.2	0.0	3302.2
	% Fixture	89.6	0.0	89.6
<b>Total</b>	Lumens	3684.0	0.0	3684.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	39.1	1.1
10°-20°	104.5	2.8
20°-30°	163.1	4.4
30°-40°	275.6	7.5
40°-50°	535.4	14.5
50°-60°	899.1	24.4
60°-70°	1073.0	29.1
70°-80°	565.5	15.3
80°-90°	28.7	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°	3684.0	100.0
0°-180°	3684.0	100.0

**Coefficient of Utilization**



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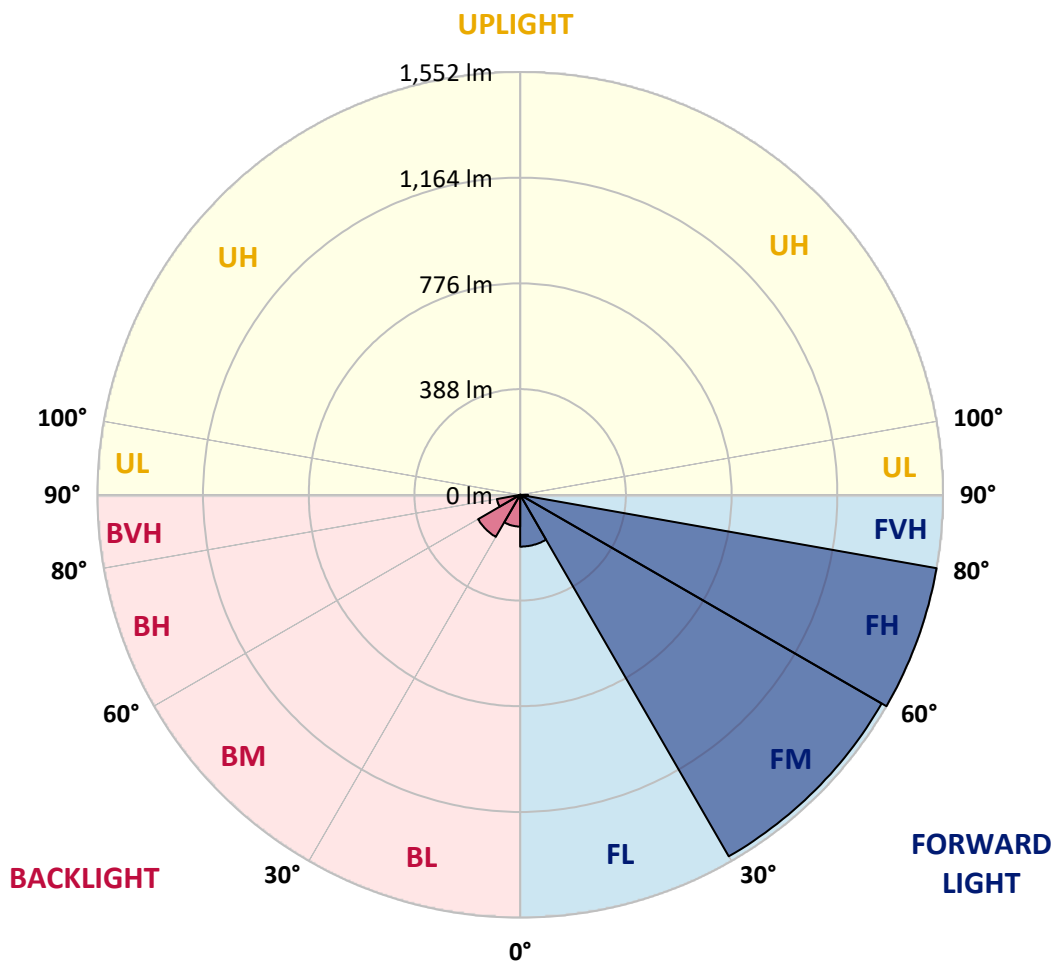
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	190.2	5.2			
FM	(30°-60°)	1531.8	41.6			
FH	(60°-80°)	1551.7	42.1			G1/1800
FVH	(80°-90°)	28.5	0.8			G1/100
BL	(0°-30°)	116.5	3.2	B1/500		
BM	(30°-60°)	178.3	4.8	B0/220		
BH	(60°-80°)	86.7	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°	416.3	416.3	416.3	416.3	416.3	416.3	416.3	416.3	416.3	416.3	416.3
2.5°	410.3	410.3	410.3	411.2	412.1	412.1	413.8	412.9	412.9	412.9	414.6
5°	399.2	400.0	400.9	402.6	406.0	408.6	412.9	412.9	413.8	415.5	416.3
7.5°	383.7	384.6	387.2	390.6	397.5	403.5	410.3	412.1	414.6	418.9	420.6
10°	374.3	376.0	379.4	383.7	391.5	399.2	407.8	410.3	418.1	425.8	430.1
12.5°	371.7	372.6	376.0	382.9	392.3	401.8	412.9	415.5	426.6	438.7	445.5
15°	376.0	376.9	378.6	386.3	397.5	409.5	424.1	427.5	441.2	455.0	463.6
17.5°	383.7	383.7	385.4	392.3	404.3	418.1	437.0	442.1	457.6	473.0	482.4
20°	388.9	388.9	391.5	398.3	412.1	430.1	452.4	459.3	476.4	493.6	502.2
22.5°	394.0	394.9	397.5	405.2	420.6	445.5	471.3	478.2	497.9	515.9	524.5
25°	408.6	407.8	408.6	415.5	433.5	464.4	497.0	505.6	526.2	546.0	550.3
27.5°	449.0	447.3	436.1	431.8	445.5	484.2	529.7	538.2	562.3	582.0	582.0
30°	541.7	538.2	510.8	475.6	464.4	502.2	560.6	572.6	603.5	620.7	615.5
32.5°	659.3	651.6	616.4	556.3	511.6	526.2	593.2	606.9	646.4	661.0	649.8
35°	788.1	787.2	743.4	666.2	602.6	576.0	635.3	651.6	701.4	714.2	696.2
37.5°	924.5	928.0	898.8	792.3	717.7	657.6	691.1	709.9	770.9	786.3	769.2
40°	1076.5	1075.6	1064.5	938.3	855.9	773.5	771.7	788.9	862.7	886.8	862.7
42.5°	1268.8	1267.1	1226.7	1113.4	1023.3	924.5	889.4	895.4	977.8	1017.3	982.1
45°	1464.5	1452.5	1406.1	1308.3	1228.4	1111.7	1044.7	1044.7	1115.1	1169.2	1114.3
47.5°	1573.5	1561.5	1542.6	1488.6	1464.5	1334.0	1235.3	1223.3	1278.2	1333.2	1255.9
50°	1716.9	1716.9	1669.7	1649.1	1690.3	1598.4	1445.6	1433.6	1460.2	1504.0	1402.7
52.5°	1830.2	1809.6	1776.1	1794.2	1911.8	1869.7	1655.9	1632.8	1653.4	1664.5	1530.6
55°	1877.4	1857.7	1855.1	1921.2	2103.2	2044.8	1871.4	1850.8	1849.1	1794.2	1642.2
57.5°	1886.9	1869.7	1902.3	2018.2	2289.5	2188.2	2086.0	2070.6	2022.5	1885.2	1756.4
60°	1807.0	1815.6	1894.6	2071.4	2399.4	2312.7	2267.2	2250.9	2140.1	1962.4	1883.4
62.5°	1643.1	1663.7	1811.3	2076.6	2359.0	2363.3	2367.6	2356.4	2231.1	2032.8	2011.3
65°	1449.1	1455.1	1632.8	2005.3	2288.6	2347.9	2441.4	2440.6	2300.6	2111.8	2155.6
67.5°	1194.1	1204.4	1358.1	1765.0	2147.8	2341.0	2538.4	2535.9	2379.6	2201.9	2241.4
70°	888.5	901.4	1025.8	1372.7	1833.6	2255.1	2665.5	2667.2	2462.9	2270.6	2182.2
71°	692.8	715.9	846.4	1165.8	1673.1	2168.4	2677.5	2693.0	2472.3	2261.2	2060.3
72.5°	339.9	367.4	531.4	820.7	1377.0	1974.4	2598.5	2628.6	2413.1	2143.5	1761.5
75°	88.4	93.6	158.8	335.7	738.3	1308.3	2095.5	2171.9	1972.7	1631.9	1076.5
77.5°	55.8	57.5	74.7	130.5	276.4	497.0	1231.0	1268.8	1127.1	826.7	379.4
80°	39.5	40.3	47.2	84.1	161.4	145.1	443.0	459.3	407.8	218.9	67.8
82.5°	24.0	24.0	34.3	54.1	99.6	79.0	116.7	124.5	109.9	60.9	22.3
85°	13.7	14.6	21.5	36.9	47.2	38.6	43.8	46.4	47.2	40.3	9.4
87.5°	11.2	12.0	18.9	30.9	25.8	18.9	18.9	19.7	20.6	24.0	4.3
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°	416.3	416.3	416.3	416.3	416.3	416.3	416.3	416.3	416.3	416.3	416.3
2.5°	414.6	414.6	415.5	414.6	414.6	414.6	415.5	415.5	415.5	417.2	418.1
5°	416.3	416.3	416.3	415.5	414.6	414.6	416.3	417.2	417.2	419.8	419.8
7.5°	420.6	420.6	418.9	417.2	415.5	412.9	413.8	414.6	413.8	414.6	414.6
10°	430.1	430.1	427.5	424.1	418.9	411.2	400.9	388.0	376.0	371.7	370.0
12.5°	445.5	444.7	439.5	433.5	422.4	395.7	357.1	311.6	273.8	263.5	260.1
15°	462.7	461.0	455.0	444.7	414.6	344.2	263.5	205.2	169.1	160.5	158.8
17.5°	480.7	478.2	469.6	449.0	379.4	255.8	170.0	128.8	109.0	107.3	108.2
20°	499.6	496.2	484.2	440.4	306.5	170.8	109.9	99.6	97.9	97.9	98.7
22.5°	521.1	516.8	500.5	409.5	223.2	113.3	94.4	93.6	92.7	91.9	91.9
25°	546.0	540.8	515.9	353.7	153.7	92.7	90.1	87.6	85.8	84.1	83.3
27.5°	576.0	569.2	527.9	285.0	105.6	86.7	85.0	80.7	77.3	73.8	73.8
30°	606.1	597.5	524.5	214.6	85.8	80.7	77.3	72.1	67.0	63.5	62.7
32.5°	637.8	629.2	502.2	144.2	78.1	73.8	69.5	61.8	55.8	51.5	50.6
35°	685.0	678.2	458.4	95.3	70.4	65.2	59.2	51.5	43.8	39.5	38.6
37.5°	755.4	746.9	404.3	73.0	61.8	54.1	48.9	40.3	32.6	28.3	27.5
40°	849.9	824.1	339.9	64.4	54.1	44.6	37.8	29.2	23.2	20.6	20.6
42.5°	959.7	898.8	270.4	58.4	48.1	36.9	27.5	19.7	16.3	15.5	15.5
45°	1076.5	968.3	200.9	54.1	42.1	29.2	19.7	13.7	12.0	11.2	11.2
47.5°	1196.7	1025.0	139.9	48.9	35.2	22.3	13.7	10.3	8.6	7.7	7.7
50°	1309.1	1061.9	98.7	43.8	30.0	16.3	10.3	7.7	6.0	6.0	6.0
52.5°	1387.3	1058.5	71.3	37.8	23.2	11.2	6.9	5.2	5.2	5.2	5.2
55°	1455.9	1045.6	55.8	32.6	18.0	7.7	5.2	4.3	4.3	3.4	3.4
57.5°	1514.3	1025.0	47.2	26.6	12.9	6.0	3.4	3.4	2.6	2.6	2.6
60°	1564.1	999.2	39.5	22.3	8.6	4.3	2.6	1.7	1.7	0.9	1.7
62.5°	1631.9	982.9	34.3	17.2	6.0	2.6	1.7	0.9	0.9	0.0	0.0
65°	1681.7	952.0	29.2	12.0	3.4	1.7	0.9	0.9	0.0	0.0	0.0
67.5°	1683.4	896.2	21.5	6.9	2.6	1.7	0.9	0.0	0.0	0.0	0.0
70°	1547.8	764.0	13.7	3.4	1.7	0.9	0.9	0.0	0.0	0.0	0.0
71°	1423.3	676.5	11.2	2.6	1.7	0.9	0.0	0.0	0.0	0.0	0.0
72.5°	1172.6	497.0	8.6	2.6	0.9	0.9	0.0	0.0	0.0	0.0	0.0
75°	646.4	180.3	4.3	1.7	0.9	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	206.9	54.9	2.6	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	35.2	8.6	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	12.0	3.4	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	3.4	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)