

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: P214648

Luminaire Tested: **ARCH-AF24-70-D-U-T2R-7030-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P214648
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29623)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-AF24-70-D-U-T2R-7030-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 930mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5814 lumens
Efficiency: N/A
Efficacy: 78.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B0 - U0 - G1

Input Watts (W): 74
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

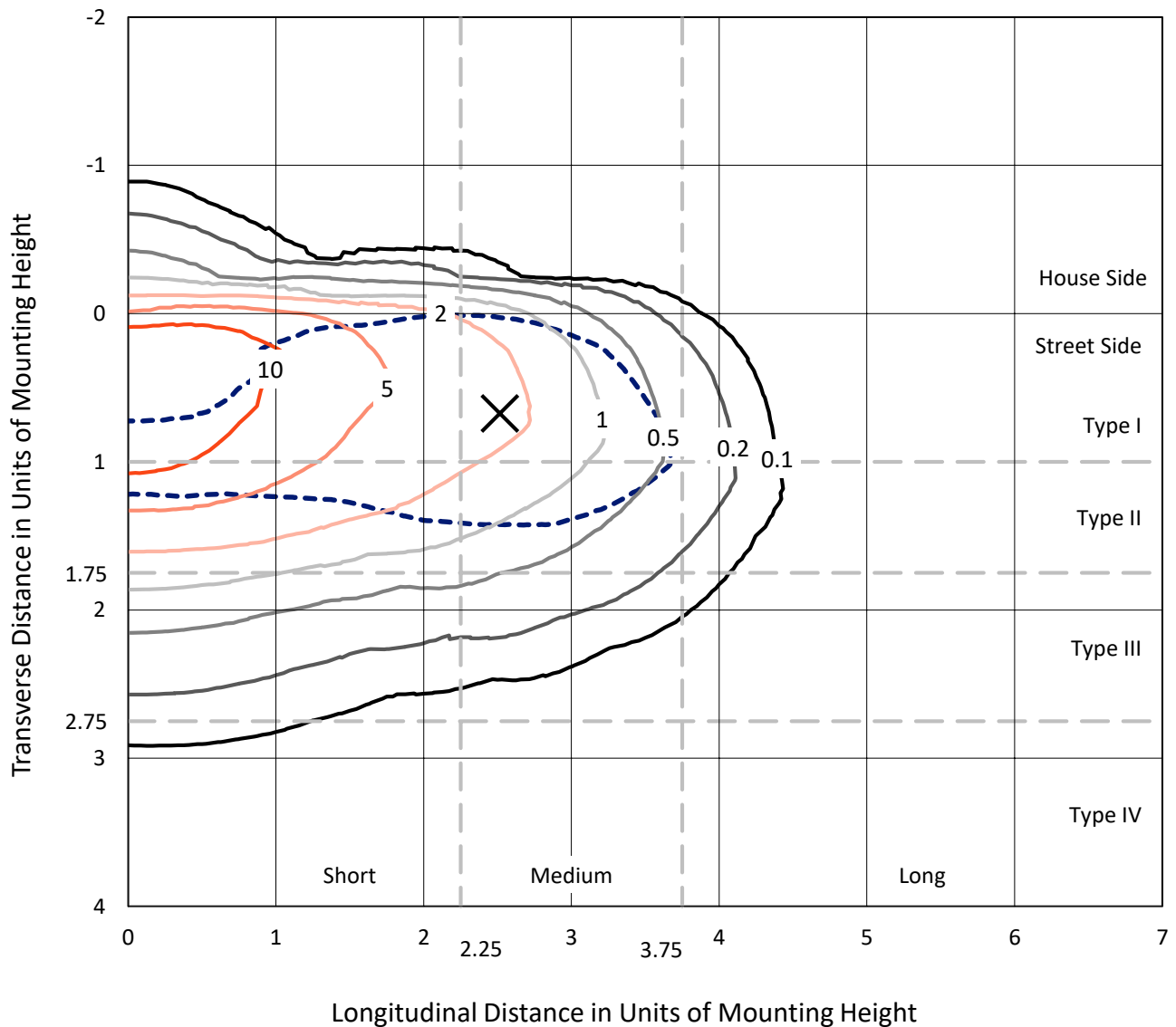


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

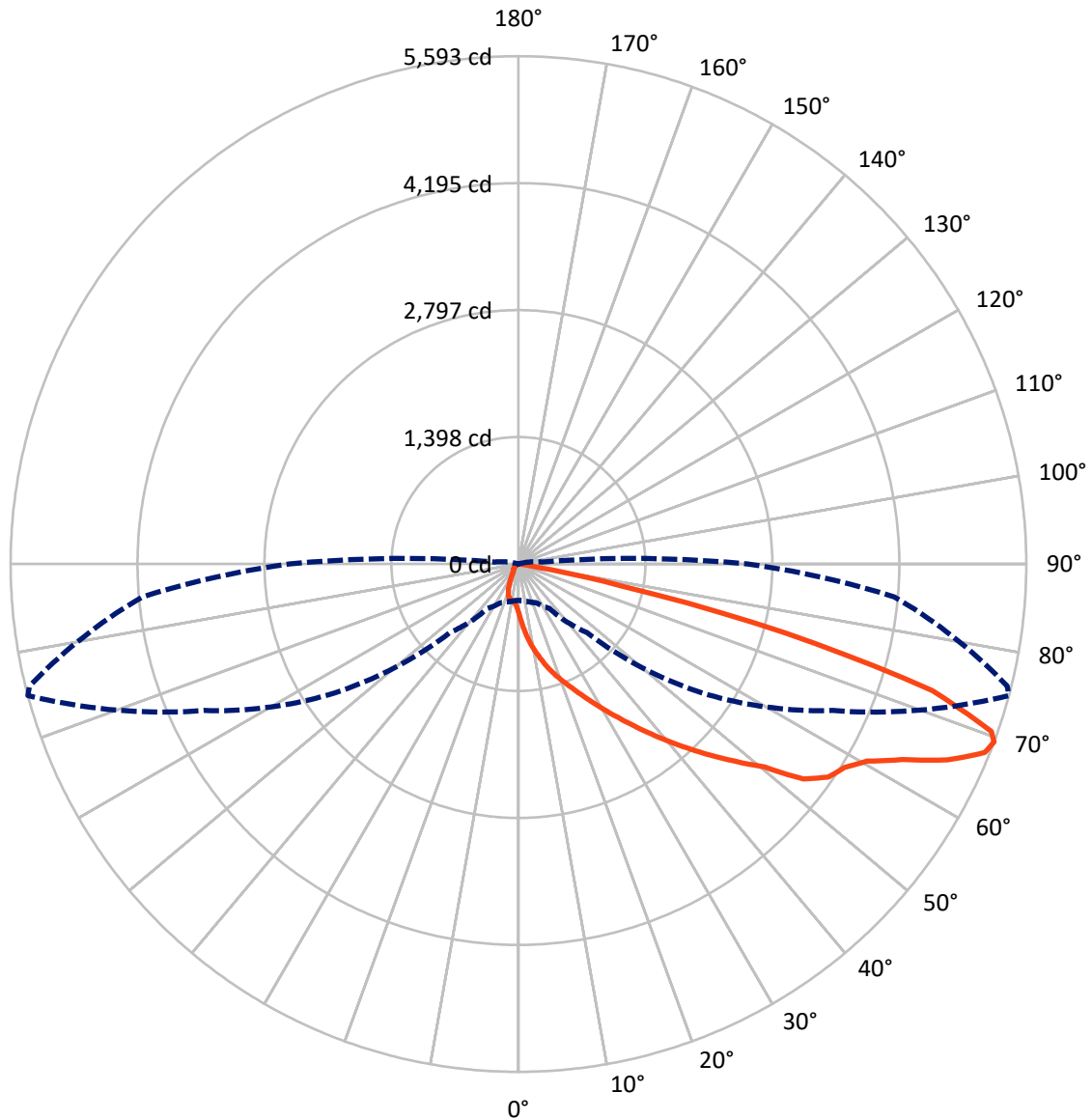


Based on 10 foot mounting height. Maximum calculated value = 14.8 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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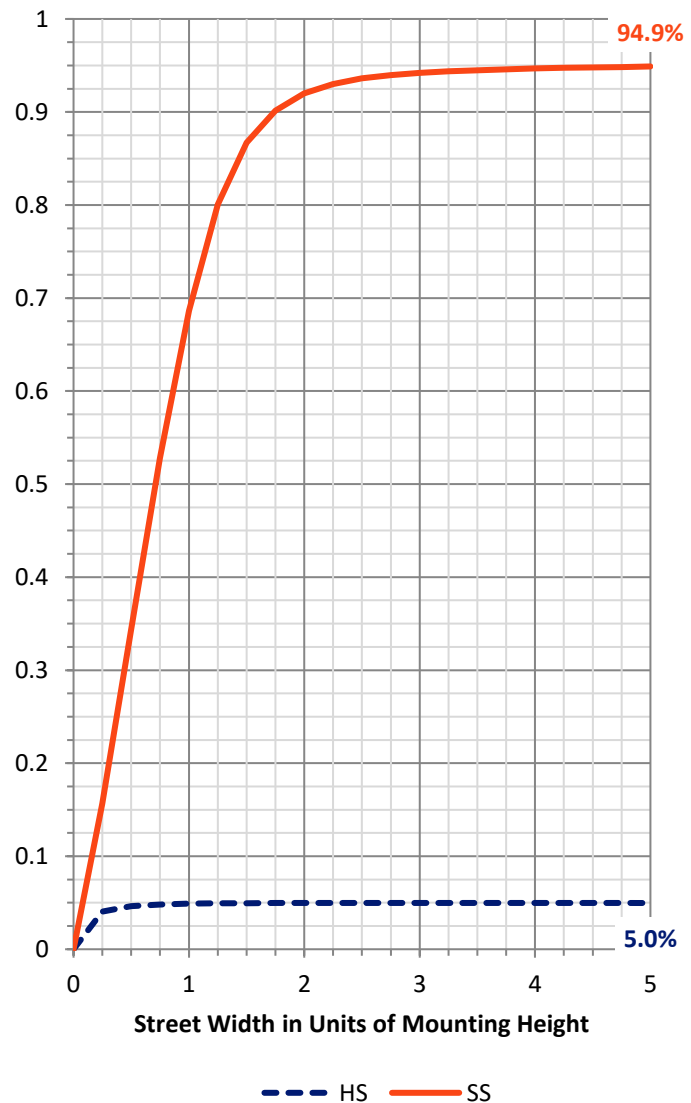
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	290.1	0.0	290.1
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	5523.9	0.0	5523.9
	% Fixture	95.0	0.0	95.0
Total	Lumens	5814.0	0.0	5814.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.1	1.1
10°-20°	225.5	3.9
20°-30°	430.5	7.4
30°-40°	772.3	13.3
40°-50°	1183.2	20.4
50°-60°	1375.2	23.7
60°-70°	1217.8	20.9
70°-80°	525.3	9.0
80°-90°	21.1	0.4
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°	5814.0	100.0
0°-180°	5814.0	100.0

Coefficient of Utilization



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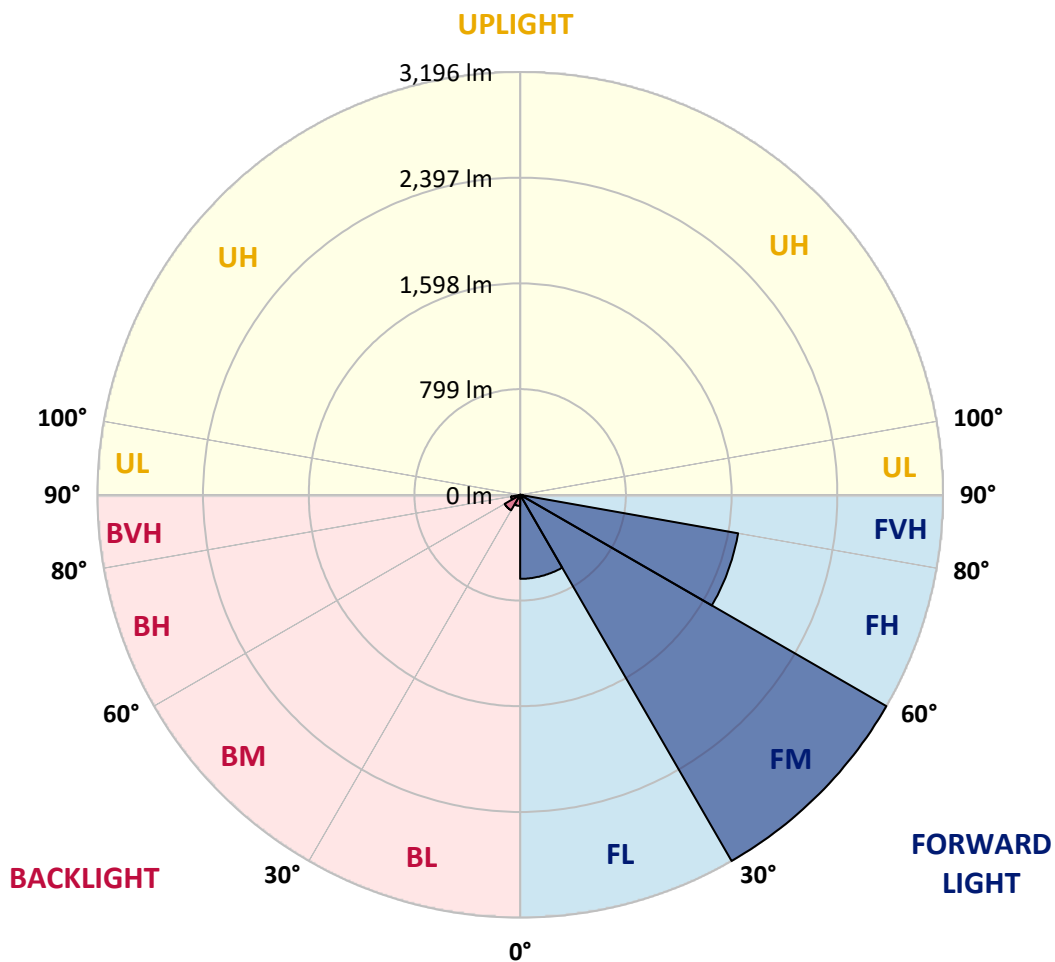
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	634.9	10.9			
FM	(30°-60°)	3195.5	55.0			
FH	(60°-80°)	1672.8	28.8			G1/1800
FVH	(80°-90°)	20.7	0.4			G1/100
BL	(0°-30°)	84.2	1.4	B0/110		
BM	(30°-60°)	135.2	2.3	B0/220		
BH	(60°-80°)	70.3	1.2	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: B0-U0-G1

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0
2.5°	891.2	882.4	873.6	863.6	841.0	802.1	753.1	700.4	635.1	623.8	571.1
5°	1082.0	1078.2	1069.4	1055.6	1030.5	987.8	932.6	854.8	745.6	726.8	615.0
7.5°	1216.3	1213.8	1206.2	1189.9	1167.3	1124.7	1066.9	982.8	856.0	834.7	670.3
10°	1336.8	1335.5	1329.3	1314.2	1291.6	1245.2	1183.7	1095.8	961.5	937.6	734.3
12.5°	1446.0	1447.2	1444.7	1437.2	1420.9	1377.0	1306.7	1211.3	1063.2	1036.8	810.9
15°	1510.0	1513.8	1523.8	1538.9	1543.9	1508.7	1435.9	1330.5	1167.3	1144.7	898.7
17.5°	1488.7	1492.4	1523.8	1575.3	1624.2	1629.2	1564.0	1443.5	1270.3	1247.7	985.3
20°	1437.2	1442.2	1474.9	1545.1	1640.5	1707.1	1680.7	1566.5	1368.2	1340.6	1068.2
22.5°	1494.9	1494.9	1505.0	1547.7	1634.3	1738.4	1773.6	1689.5	1468.6	1434.7	1151.0
25°	1693.3	1689.5	1668.2	1650.6	1678.2	1771.1	1843.9	1815.0	1586.6	1547.7	1238.9
27.5°	1944.3	1961.9	1921.7	1857.7	1794.9	1835.1	1906.6	1939.3	1717.1	1676.9	1329.3
30°	2225.5	2233.0	2185.3	2099.9	1989.5	1950.6	1980.7	2046.0	1858.9	1815.0	1423.4
32.5°	2479.0	2472.7	2432.6	2343.5	2206.6	2122.5	2076.1	2131.3	2013.3	1963.1	1520.0
35°	2703.7	2708.7	2659.8	2556.8	2422.5	2333.4	2223.0	2228.0	2186.6	2128.8	1631.8
37.5°	2905.8	2897.0	2850.6	2747.6	2625.9	2529.2	2412.5	2328.4	2376.1	2315.8	1757.3
40°	3070.2	3061.4	3012.5	2912.1	2797.8	2718.8	2627.1	2462.7	2575.7	2506.6	1891.6
42.5°	3200.8	3190.7	3149.3	3052.6	2942.2	2871.9	2828.0	2628.4	2789.1	2720.0	2042.2
45°	3264.8	3256.0	3230.9	3158.1	3061.4	2999.9	3021.3	2819.2	3017.5	2959.8	2207.9
47.5°	3189.5	3185.7	3214.6	3202.0	3146.8	3114.1	3188.2	3027.5	3257.2	3200.8	2398.7
50°	2961.0	2967.3	3051.4	3155.6	3181.9	3220.8	3325.0	3247.2	3514.6	3454.3	2618.3
52.5°	2397.4	2440.1	2693.7	2944.7	3139.3	3286.1	3485.7	3561.0	3933.8	3874.8	2961.0
55°	1789.9	1807.5	2083.6	2512.9	2967.3	3281.1	3604.9	3745.5	4140.9	4080.7	3051.4
57.5°	1419.6	1425.9	1562.7	2000.8	2613.3	3168.1	3667.7	3812.0	4231.3	4181.1	3185.7
60°	1114.6	1122.1	1221.3	1522.6	2115.0	2863.1	3577.3	3869.8	4408.3	4368.1	3420.4
62.5°	867.3	874.9	935.1	1112.1	1586.6	2393.7	3395.3	3962.7	4744.7	4725.8	3804.5
65°	671.5	674.0	715.5	798.3	1120.9	1885.3	3173.1	4049.3	5199.0	5182.7	4115.8
67.5°	495.8	499.6	528.4	579.9	756.9	1354.4	2809.1	3982.7	5541.7	5494.0	4228.8
69°	400.4	404.2	429.3	470.7	597.5	1066.9	2476.5	3818.3	5593.2	5548.0	4157.2
70°	342.7	345.2	370.3	405.4	509.6	906.3	2212.9	3676.5	5525.4	5481.5	3994.0
72.5°	219.7	232.2	257.3	279.9	337.6	600.0	1493.7	3048.9	4767.2	4691.9	3128.0
75°	121.8	125.5	170.7	198.3	224.7	390.4	830.9	1901.6	3032.6	2979.8	1673.2
77.5°	100.4	102.9	120.5	150.6	150.6	218.4	313.8	749.4	1153.5	1040.6	453.1
80°	70.3	72.8	91.6	99.2	107.9	123.0	101.7	164.4	178.2	158.2	67.8
82.5°	49.0	51.5	62.8	81.6	86.6	57.7	37.7	49.0	51.5	51.5	26.4
85°	8.8	12.6	46.4	67.8	51.5	17.6	21.3	17.6	16.3	17.6	6.3
87.5°	0.0	0.0	28.9	32.6	27.6	7.5	8.8	6.3	3.8	5.0	2.5
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°	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0	541.0
2.5°	544.8	518.4	473.2	440.6	413.0	391.6	382.8	369.0	359.0	364.0	357.7
5°	559.8	513.4	440.6	394.1	361.5	333.9	311.3	293.7	279.9	277.4	274.9
7.5°	583.7	517.1	421.7	364.0	315.1	272.4	237.2	210.9	190.8	190.8	183.3
10°	616.3	527.2	410.4	333.9	261.1	203.3	168.2	143.1	133.1	131.8	129.3
12.5°	661.5	546.0	401.7	295.0	203.3	148.1	126.8	118.0	114.2	113.0	111.7
15°	723.0	573.6	391.6	247.3	154.4	121.8	113.0	105.4	101.7	100.4	99.2
17.5°	782.0	598.7	370.3	198.3	125.5	110.5	100.4	94.1	89.1	87.9	87.9
20°	837.2	620.1	333.9	154.4	113.0	99.2	89.1	81.6	76.6	75.3	75.3
22.5°	895.0	637.6	288.7	125.5	102.9	87.9	77.8	70.3	65.3	64.0	62.8
25°	956.5	650.2	237.2	111.7	92.9	77.8	66.5	60.2	56.5	55.2	54.0
27.5°	1023.0	655.2	188.3	101.7	81.6	67.8	57.7	51.5	49.0	47.7	47.7
30°	1083.2	650.2	145.6	90.4	71.5	59.0	50.2	45.2	42.7	41.4	41.4
32.5°	1146.0	637.6	116.7	80.3	62.8	50.2	42.7	38.9	37.7	36.4	36.4
35°	1212.5	621.3	100.4	71.5	54.0	43.9	37.7	35.1	33.9	32.6	32.6
37.5°	1290.3	601.2	91.6	64.0	47.7	38.9	32.6	31.4	30.1	30.1	30.1
40°	1378.2	576.1	85.4	57.7	42.7	33.9	28.9	27.6	26.4	26.4	26.4
42.5°	1471.1	547.3	79.1	51.5	37.7	28.9	25.1	25.1	23.8	23.8	22.6
45°	1575.3	518.4	72.8	45.2	32.6	25.1	21.3	20.1	20.1	18.8	18.8
47.5°	1698.3	492.0	66.5	40.2	28.9	21.3	18.8	17.6	16.3	15.1	15.1
50°	1871.5	489.5	59.0	35.1	26.4	17.6	15.1	13.8	12.6	11.3	11.3
52.5°	2043.5	466.9	50.2	28.9	21.3	15.1	11.3	10.0	8.8	8.8	7.5
55°	2082.4	429.3	43.9	25.1	16.3	11.3	8.8	6.3	6.3	5.0	5.0
57.5°	2167.7	411.7	37.7	20.1	12.6	8.8	5.0	3.8	3.8	3.8	3.8
60°	2335.9	406.7	32.6	17.6	8.8	6.3	3.8	2.5	2.5	1.3	1.3
62.5°	2568.1	401.7	27.6	15.1	6.3	3.8	2.5	1.3	0.0	0.0	0.0
65°	2696.2	367.8	22.6	11.3	5.0	3.8	1.3	0.0	0.0	0.0	0.0
67.5°	2662.3	303.8	20.1	7.5	3.8	2.5	1.3	0.0	0.0	0.0	0.0
69°	2520.4	256.1	16.3	6.3	3.8	2.5	1.3	0.0	0.0	0.0	0.0
70°	2349.7	220.9	15.1	5.0	2.5	1.3	1.3	0.0	0.0	0.0	0.0
72.5°	1668.2	115.5	10.0	3.8	2.5	1.3	0.0	0.0	0.0	0.0	0.0
75°	779.5	51.5	6.3	2.5	1.3	1.3	0.0	0.0	0.0	0.0	0.0
77.5°	172.0	23.8	3.8	2.5	1.3	0.0	0.0	0.0	0.0	0.0	0.0
80°	32.6	8.8	2.5	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	11.3	3.8	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	3.8	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.3	0.0	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)