

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: LUMARK

Report Number: P395101

Luminaire Tested: **LAS45S-T4-Switch-7**

Issue Date: 5/3/2020

Test Information

Test Method: LM-79-08
Report Number: P395101
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2004-740-10)
Test Lab: INNOVATION CENTER
Issue Date: 5/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: LAS45S-T4-Switch-7
Description: AREA SITE SMALL HOUSING, TYPE IV, WATTAGE SWITCH ON POSTION 7
Light Source: (168) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10509 lumens
Efficiency: N/A
Efficacy: 152.7 lumens/watt
Luminous Opening: Rectangular (W 0.71' x L: 0.6' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B2 - U0 - G3

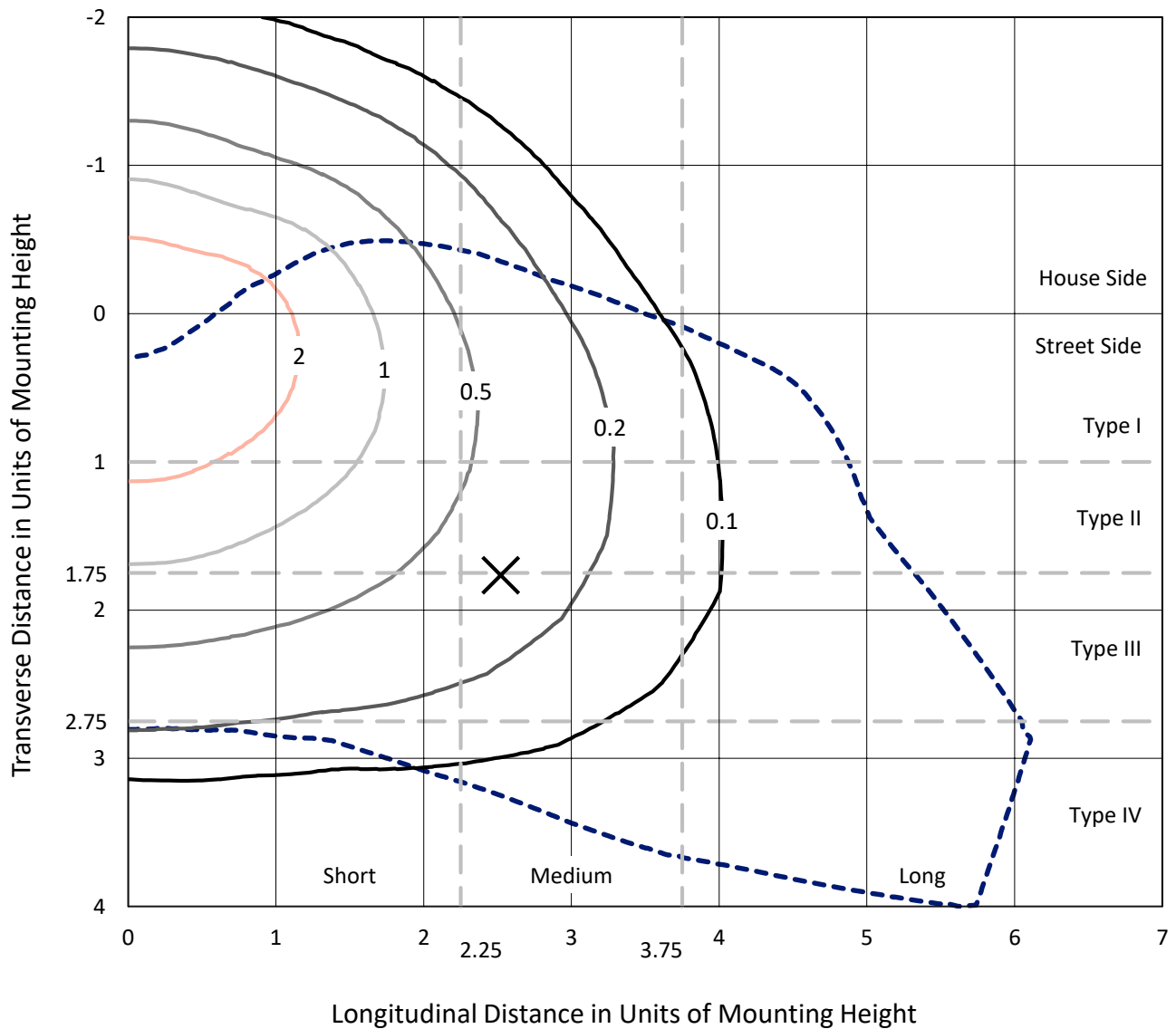
Input Watts (W): 68.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

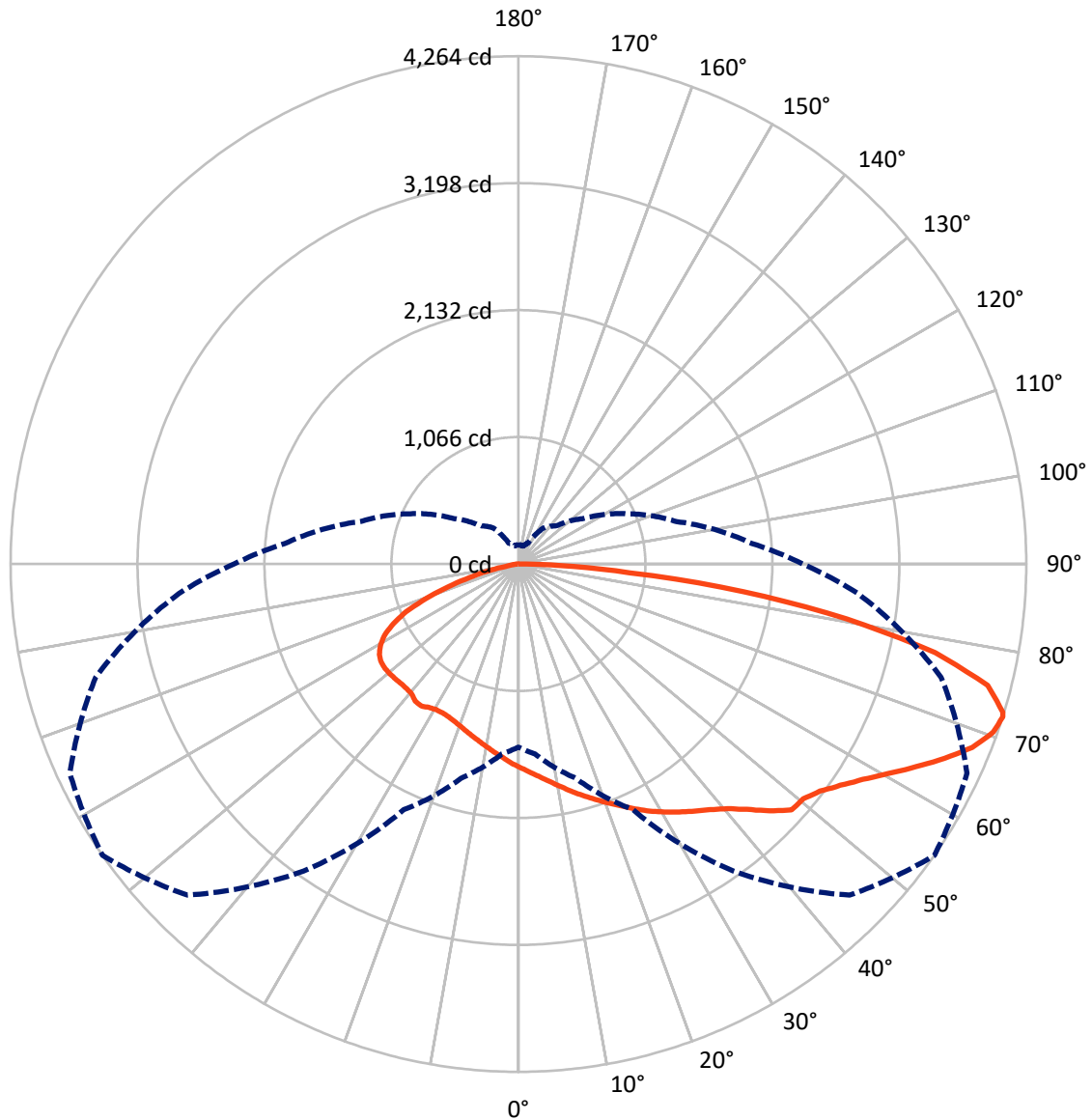
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4.7 fc
 Type IV - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 72-Deg Vertical

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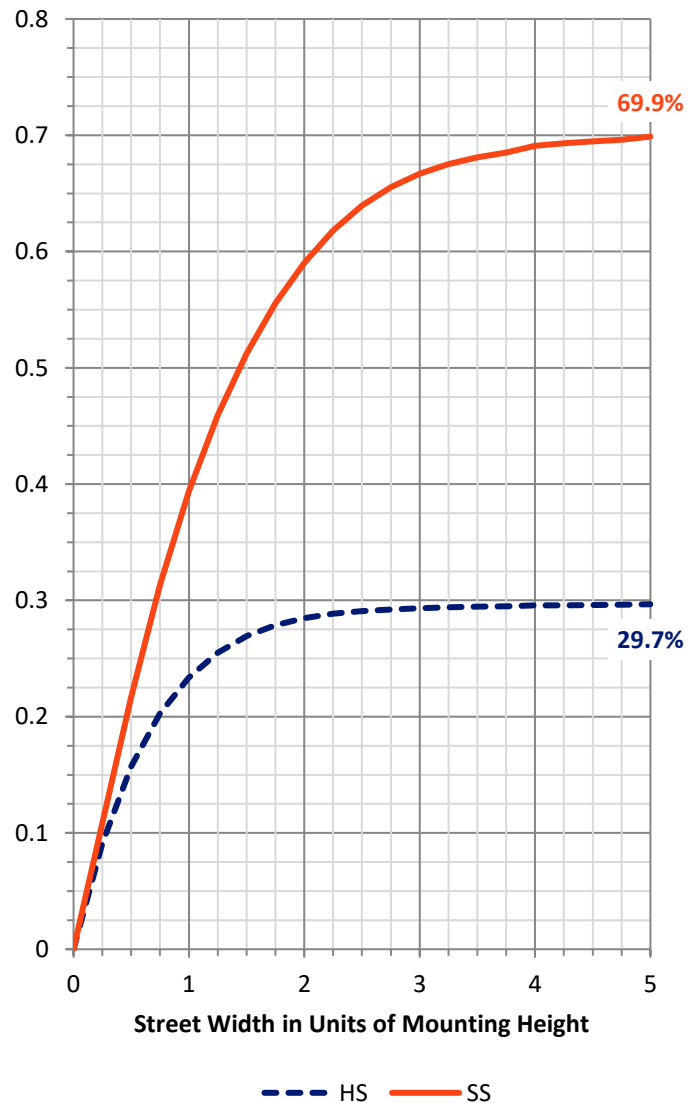
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3137.2	0.0	3137.2
	% Fixture	29.9	0.0	29.9
Street Side	Lumens	7371.8	0.0	7371.8
	% Fixture	70.1	0.0	70.1
Total	Lumens	10509.0	0.0	10509.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	163.6	1.6
10°-20°	497.0	4.7
20°-30°	849.7	8.1
30°-40°	1231.6	11.7
40°-50°	1652.2	15.7
50°-60°	2025.1	19.3
60°-70°	2264.1	21.5
70°-80°	1551.6	14.8
80°-90°	274.1	2.6
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°	10509.0	100.0
0°-180°	10509.0	100.0



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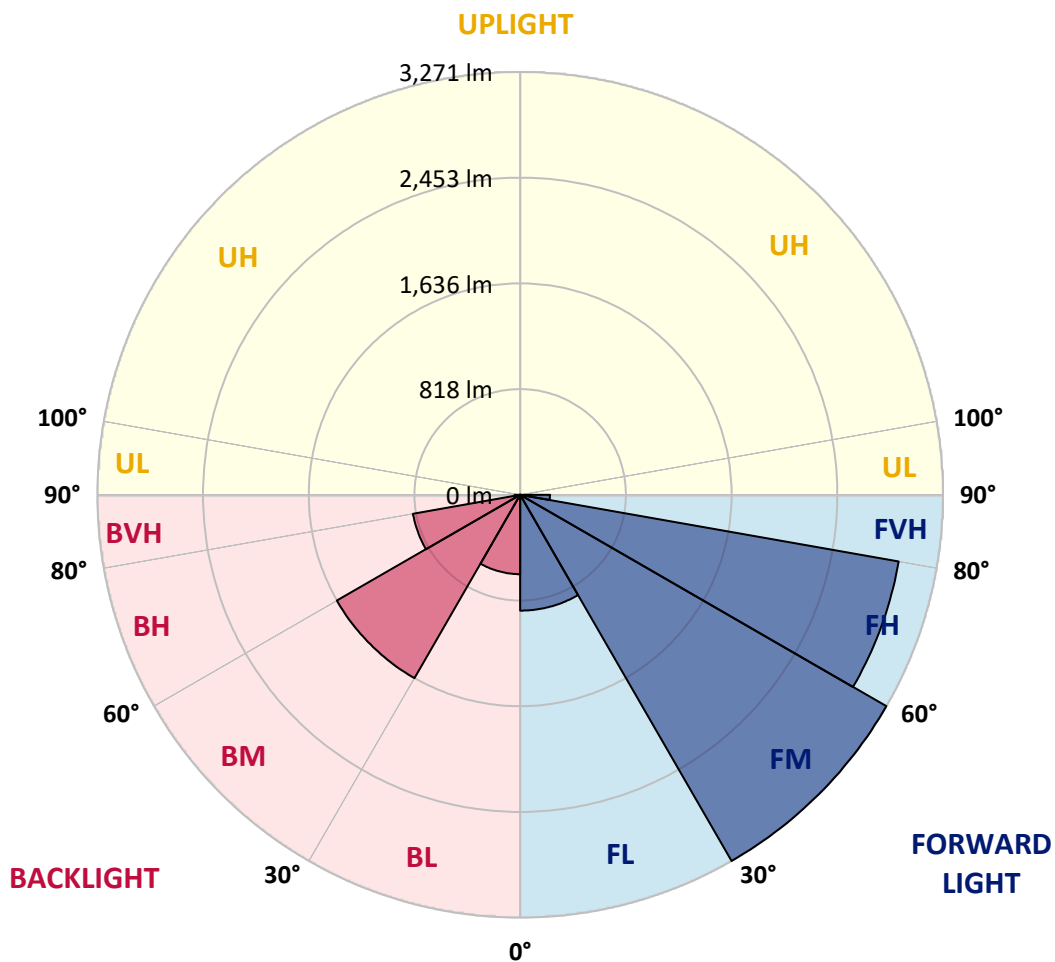
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	896.1	8.5			
FM	(30°-60°)	3271.3	31.1			
FH	(60°-80°)	2973.5	28.3			G2/5000
FVH	(80°-90°)	230.9	2.2			G3/500
BL	(0°-30°)	614.2	5.8	B2/1000		
BM	(30°-60°)	1637.6	15.6	B2/2500		
BH	(60°-80°)	842.2	8.0	B2/1000		G2/1000
BVH	(80°-90°)	43.2	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1708.0	1708.0	1708.0	1708.0	1708.0	1708.0	1708.0	1708.0	1708.0	1708.0	1708.0
2.5°	1772.6	1765.8	1766.1	1763.7	1756.9	1750.8	1746.5	1735.1	1726.5	1716.9	1710.5
5°	1843.1	1836.3	1831.1	1825.5	1817.5	1805.5	1790.5	1771.7	1751.4	1730.5	1717.8
7.5°	1911.7	1905.5	1899.4	1891.0	1879.7	1861.8	1839.7	1812.6	1781.8	1749.5	1731.4
10°	1976.3	1973.2	1968.0	1956.6	1942.4	1922.4	1896.0	1861.8	1820.3	1776.9	1750.8
12.5°	2036.6	2038.4	2034.1	2024.6	2008.9	1984.3	1955.0	1913.8	1865.5	1806.4	1775.4
15°	2100.6	2095.0	2093.2	2085.8	2074.1	2049.5	2016.0	1968.0	1915.0	1846.4	1806.4
17.5°	2159.3	2152.8	2151.0	2143.6	2127.3	2108.5	2076.6	2026.1	1966.7	1887.4	1844.9
20°	2209.8	2208.5	2204.2	2200.8	2186.4	2165.8	2139.0	2092.2	2026.4	1941.8	1888.3
22.5°	2265.4	2258.7	2260.5	2251.0	2241.8	2229.8	2206.7	2162.4	2090.4	1996.0	1938.1
25°	2310.7	2307.0	2305.7	2301.4	2298.4	2294.7	2277.1	2237.4	2158.4	2059.6	1993.5
27.5°	2344.8	2342.4	2350.7	2350.0	2361.4	2361.7	2349.7	2307.3	2233.1	2122.4	2051.6
30°	2379.3	2378.7	2393.4	2403.0	2415.3	2426.0	2415.9	2379.9	2301.7	2191.9	2117.5
32.5°	2420.5	2418.6	2435.6	2451.0	2469.4	2487.9	2482.0	2449.4	2377.4	2263.0	2183.3
35°	2462.0	2463.3	2481.7	2498.0	2524.8	2548.8	2548.5	2524.8	2456.5	2343.0	2257.4
37.5°	2510.3	2512.8	2525.4	2548.2	2580.5	2605.1	2615.8	2598.0	2537.7	2431.6	2347.9
40°	2627.2	2620.8	2650.3	2660.1	2676.1	2686.6	2699.8	2686.9	2637.1	2530.6	2452.8
42.5°	2746.0	2758.9	2794.3	2794.9	2809.7	2814.6	2815.2	2795.5	2744.7	2645.1	2550.9
45°	2734.6	2748.1	2801.4	2836.1	2908.7	2952.4	2955.5	2927.8	2872.7	2723.5	2590.3
47.5°	2735.8	2751.5	2796.7	2810.9	2902.9	3017.9	3086.5	3075.5	2986.9	2776.1	2642.6
50°	2773.4	2792.1	2835.2	2817.7	2881.3	2994.2	3098.5	3129.0	3023.8	2838.9	2709.4
52.5°	2835.2	2851.2	2898.6	2871.2	2915.8	3033.9	3168.7	3209.3	3114.8	2920.4	2777.7
55°	2901.9	2922.3	2964.4	2953.3	2998.5	3131.4	3280.0	3327.1	3227.4	3000.4	2836.4
57.5°	2981.9	2991.5	3047.5	3054.8	3110.5	3254.2	3411.4	3453.2	3335.7	3066.2	2881.3
60°	3029.0	3038.8	3110.5	3153.9	3252.3	3415.1	3570.8	3603.7	3448.0	3117.9	2909.3
62.5°	3093.6	3102.2	3154.5	3236.3	3407.1	3595.4	3747.3	3758.7	3558.8	3158.2	2908.4
65°	3116.4	3116.7	3173.3	3305.3	3532.3	3783.0	3932.8	3908.8	3660.6	3159.4	2862.0
67.5°	2816.1	2850.6	2953.6	3253.6	3613.8	3946.1	4108.5	4047.0	3724.0	3111.4	2754.9
70°	2266.1	2255.0	2410.3	2857.0	3500.0	4014.4	4229.1	4133.7	3723.6	3000.1	2571.5
72°	1537.6	1601.3	1861.8	2275.6	3145.6	3930.7	4263.6	4155.3	3674.4	2863.2	2386.3
72.5°	1385.9	1434.5	1641.9	2118.4	3055.8	3885.8	4252.5	4151.3	3653.5	2811.2	2327.9
75°	455.6	515.6	734.3	1218.6	2270.7	3413.2	4068.2	4062.7	3441.9	2522.0	2004.6
77.5°	179.7	182.7	204.0	466.7	1357.9	2696.4	3576.3	3693.2	2840.4	2079.0	1582.8
80°	130.4	127.4	131.7	169.5	538.4	1778.8	2796.1	2898.9	1690.5	1398.2	1106.9
82.5°	89.8	88.6	90.4	107.7	223.7	976.4	1905.2	1675.1	605.4	624.8	631.0
85°	50.1	51.1	50.5	60.9	118.4	429.2	939.2	666.7	93.8	112.6	261.8
87.5°	18.8	19.1	19.7	22.1	41.2	119.4	339.3	108.6	16.0	16.0	41.5
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1708.0	1708.0	1708.0	1708.0	1708.0	1708.0	1708.0	1708.0	1708.0	1708.0
2.5°	1706.2	1694.5	1681.2	1672.6	1660.9	1655.1	1647.4	1647.4	1644.0	1641.2
5°	1706.8	1680.6	1654.5	1631.4	1613.3	1595.7	1581.3	1570.8	1569.3	1565.9
7.5°	1712.0	1672.9	1632.0	1596.3	1565.3	1537.3	1514.2	1501.3	1493.0	1487.1
10°	1723.4	1669.9	1613.9	1561.0	1515.7	1479.7	1450.2	1434.8	1425.6	1423.4
12.5°	1741.5	1669.6	1596.6	1529.9	1472.0	1429.0	1398.2	1377.9	1370.8	1365.6
15°	1763.1	1673.9	1583.4	1500.3	1432.1	1381.3	1349.6	1328.7	1318.2	1316.1
17.5°	1792.6	1684.6	1573.0	1472.7	1394.2	1337.9	1304.4	1283.2	1273.6	1272.1
20°	1829.2	1699.4	1566.2	1448.1	1361.3	1301.6	1262.2	1239.8	1231.8	1231.8
22.5°	1871.4	1720.0	1563.4	1426.5	1330.5	1266.9	1225.9	1205.3	1200.4	1198.6
25°	1916.9	1748.9	1568.0	1411.1	1302.5	1236.1	1195.5	1173.9	1165.3	1164.1
27.5°	1969.8	1783.4	1580.0	1402.5	1281.9	1206.9	1167.2	1141.3	1133.6	1130.0
30°	2028.3	1824.9	1601.3	1404.4	1270.9	1185.3	1134.9	1112.1	1100.7	1096.4
32.5°	2093.8	1876.6	1636.0	1419.4	1269.6	1168.7	1109.0	1078.0	1065.7	1064.7
35°	2166.1	1941.5	1688.3	1445.3	1269.0	1147.8	1078.9	1046.6	1039.2	1039.5
37.5°	2259.9	2026.1	1735.7	1440.4	1229.0	1106.9	1044.7	1023.5	1017.1	1016.1
40°	2356.2	2075.9	1722.5	1410.2	1195.8	1073.0	1019.2	1002.6	999.5	997.7
42.5°	2411.6	2078.4	1729.5	1404.7	1176.4	1053.7	1000.1	984.4	979.5	978.0
45°	2440.8	2115.6	1761.5	1406.8	1163.8	1038.3	981.7	965.1	956.4	954.6
47.5°	2498.3	2163.6	1794.8	1413.0	1156.1	1017.7	961.7	942.9	934.0	934.3
50°	2558.9	2208.2	1821.2	1419.4	1147.2	999.5	940.4	918.6	912.1	909.7
52.5°	2612.5	2243.0	1833.5	1421.3	1136.1	980.7	914.9	890.3	882.3	880.5
55°	2652.8	2259.6	1827.4	1416.4	1120.4	956.1	885.1	855.5	845.7	843.9
57.5°	2676.8	2251.3	1794.8	1392.1	1094.9	925.7	846.3	808.5	795.6	793.7
60°	2673.4	2204.2	1726.5	1343.5	1054.0	876.5	782.0	738.6	721.7	718.9
62.5°	2634.0	2115.9	1634.8	1273.9	988.7	794.3	698.6	646.0	619.6	611.3
65°	2550.0	1985.5	1519.7	1160.1	874.9	685.4	588.5	526.1	455.0	438.4
67.5°	2406.7	1806.4	1362.2	1025.7	734.9	574.1	483.3	331.9	259.6	243.3
70°	2178.7	1563.1	1168.1	829.4	569.7	456.2	327.3	184.0	179.4	180.0
72°	1968.0	1375.1	998.3	665.4	454.4	370.7	196.3	155.7	160.9	158.7
72.5°	1905.8	1322.2	962.3	620.8	426.1	351.0	174.7	150.7	153.8	156.3
75°	1605.3	1032.7	692.5	425.5	315.9	234.7	129.8	128.3	132.3	133.2
77.5°	1216.1	736.2	444.5	269.8	210.4	133.8	104.0	104.0	108.0	108.6
80°	799.6	454.1	185.2	106.8	132.3	88.3	76.9	78.8	83.4	85.2
82.5°	505.8	244.9	55.4	56.0	67.4	57.8	52.0	54.1	58.1	58.5
85°	246.4	50.1	29.8	30.5	31.1	31.4	27.1	28.9	29.8	28.9
87.5°	60.6	12.6	11.4	12.3	9.8	8.3	8.3	7.1	4.9	5.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)