

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: P395099

Luminaire Tested: **LAS45S-T4-Switch-5**

Issue Date: 5/3/2020

Test Information

Test Method: LM-79-08
Report Number: P395099
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-5
Description: AREA SITE SMALL HOUSING, TYPE IV, WATTAGE SWITCH ON POSTION 5
Light Source: (168) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11862 lumens
Efficiency: N/A
Efficacy: 149.8 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

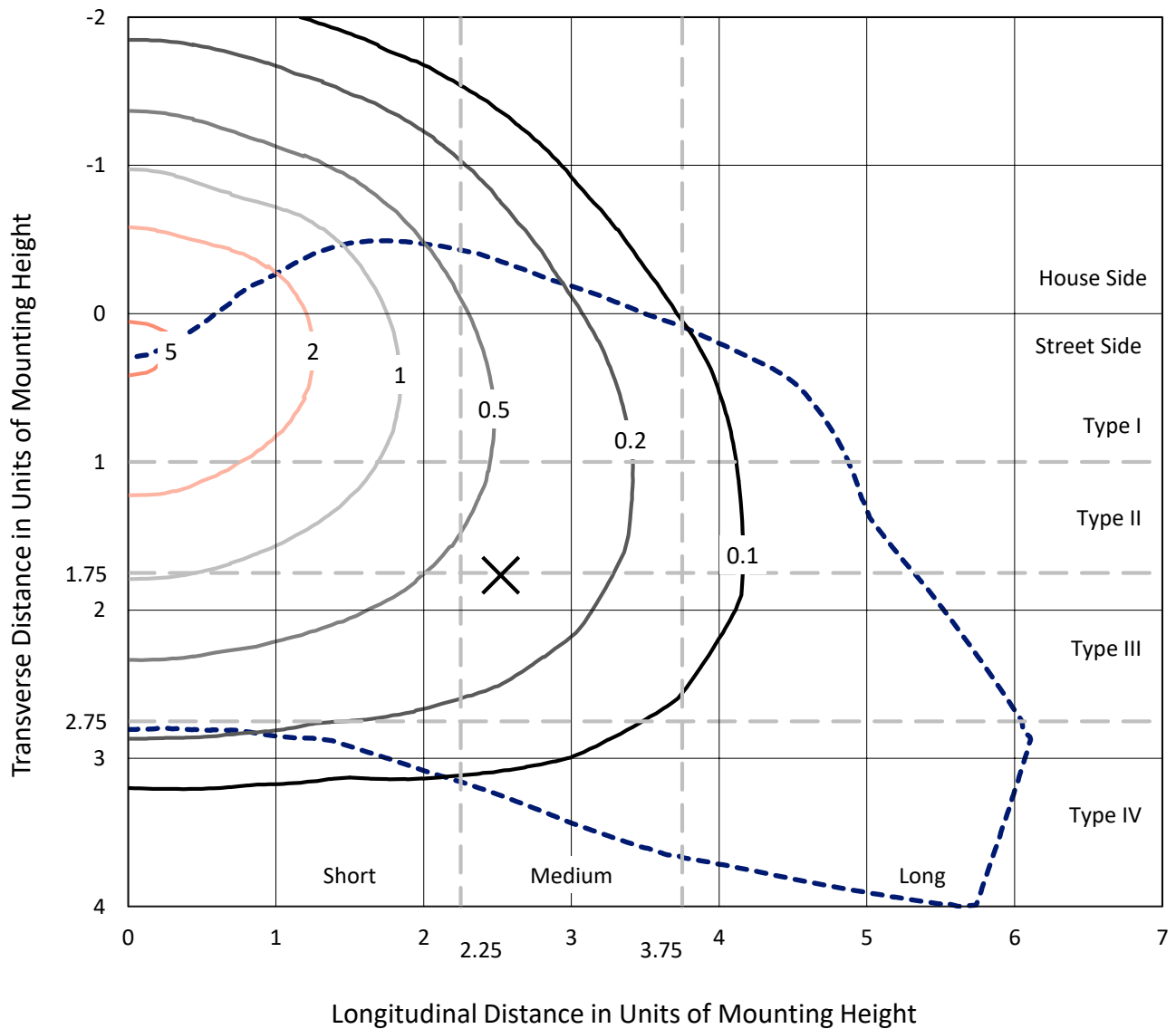
Input Watts (W): 79.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

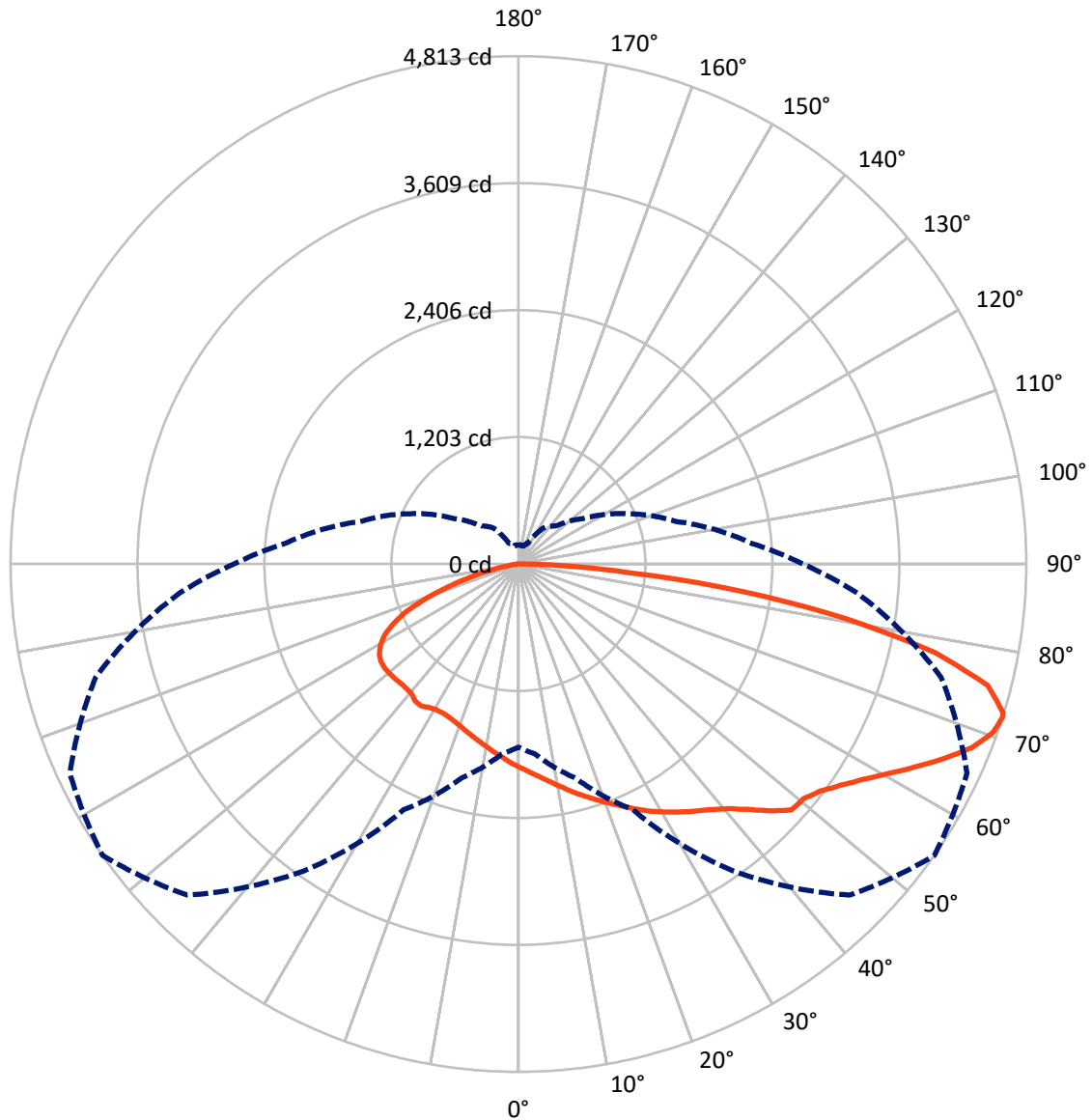
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 5.3 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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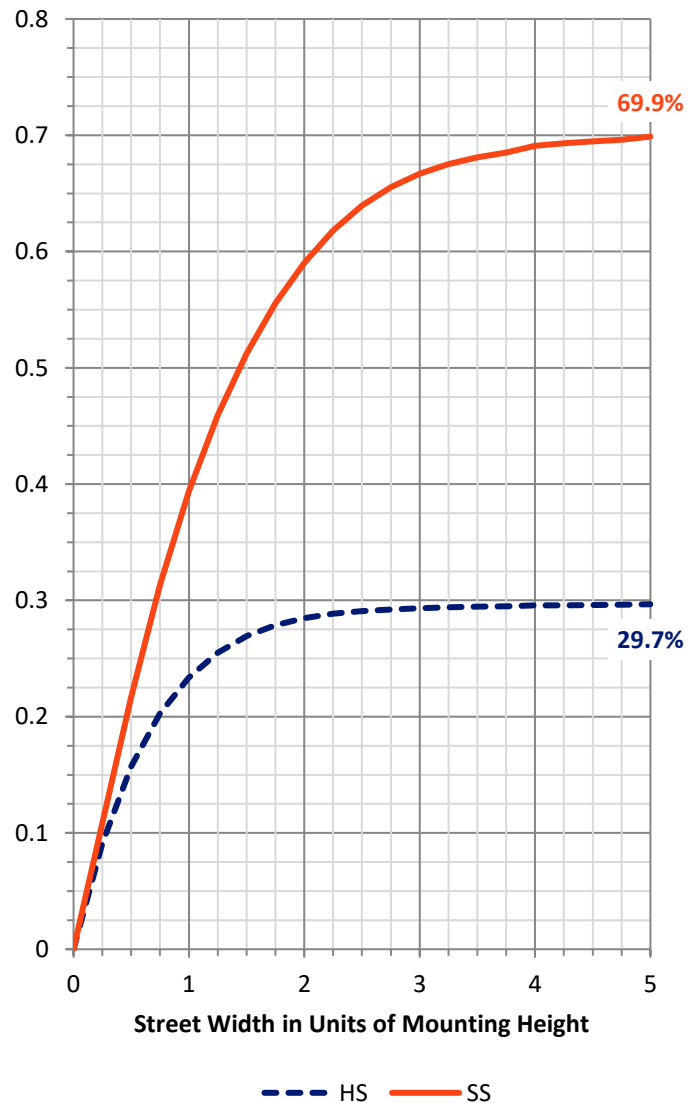
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3541.2	0.0	3541.2
	% Fixture	29.9	0.0	29.9
Street Side	Lumens	8320.8	0.0	8320.8
	% Fixture	70.1	0.0	70.1
Total	Lumens	11862.0	0.0	11862.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	184.6	1.6
10°-20°	560.9	4.7
20°-30°	959.1	8.1
30°-40°	1390.1	11.7
40°-50°	1864.9	15.7
50°-60°	2285.8	19.3
60°-70°	2555.7	21.5
70°-80°	1751.3	14.8
80°-90°	309.4	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°	11862.0	100.0
0°-180°	11862.0	100.0



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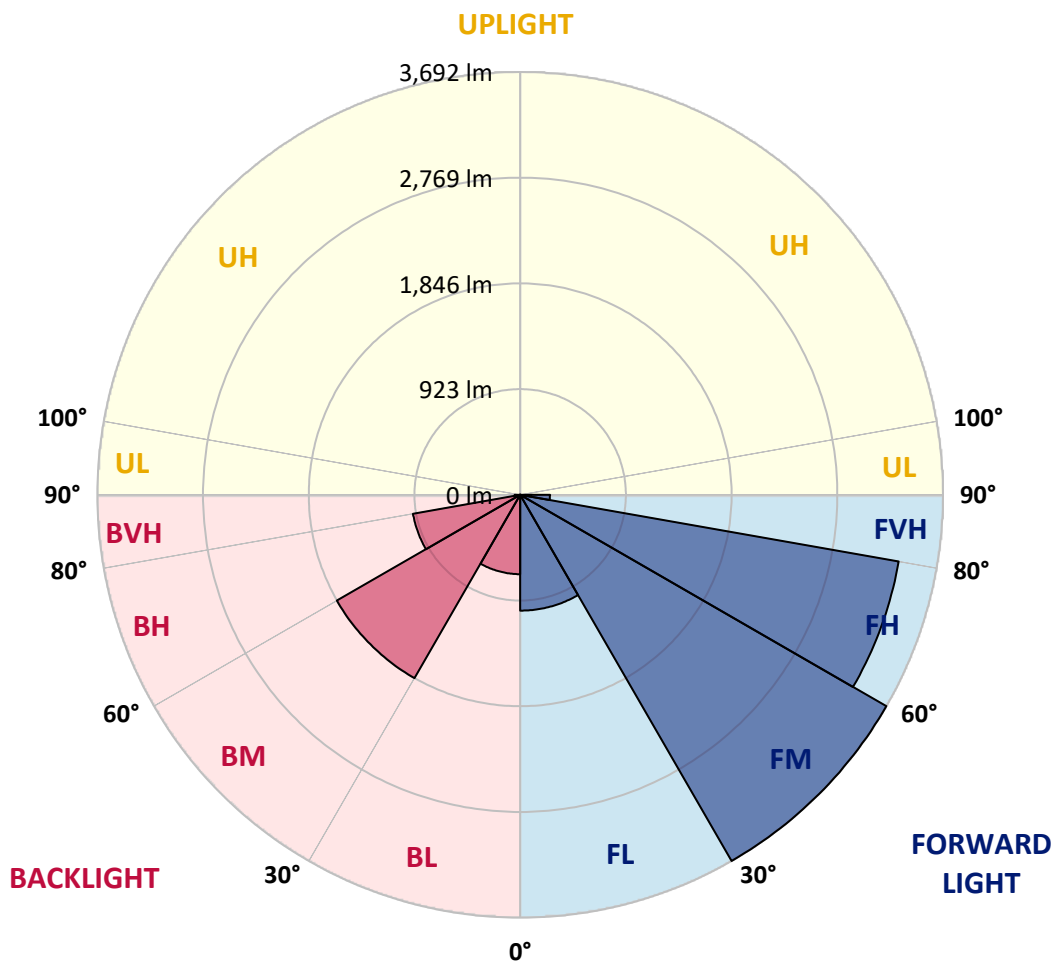
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1011.4	8.5			
FM	(30°-60°)	3692.4	31.1			
FH	(60°-80°)	3356.3	28.3			G2/5000
FVH	(80°-90°)	260.6	2.2			G3/500
BL	(0°-30°)	693.2	5.8	B2/1000		
BM	(30°-60°)	1848.5	15.6	B2/2500		
BH	(60°-80°)	950.7	8.0	B2/1000		G2/1000
BVH	(80°-90°)	48.8	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°	1927.9	1927.9	1927.9	1927.9	1927.9	1927.9	1927.9	1927.9	1927.9	1927.9	1927.9
2.5°	2000.8	1993.2	1993.5	1990.8	1983.1	1976.2	1971.3	1958.5	1948.7	1938.0	1930.7
5°	2080.3	2072.7	2066.8	2060.6	2051.5	2038.0	2021.0	1999.8	1976.9	1953.3	1939.0
7.5°	2157.8	2150.8	2143.9	2134.5	2121.7	2101.5	2076.5	2046.0	2011.2	1974.8	1954.3
10°	2230.7	2227.2	2221.3	2208.5	2192.5	2169.9	2140.1	2101.5	2054.6	2005.7	1976.2
12.5°	2298.8	2300.8	2296.0	2285.2	2267.5	2239.7	2206.7	2160.2	2105.7	2039.0	2004.0
15°	2371.0	2364.7	2362.7	2354.3	2341.1	2313.3	2275.5	2221.3	2161.6	2084.2	2039.0
17.5°	2437.3	2430.0	2427.9	2419.6	2401.2	2380.0	2343.9	2287.0	2219.9	2130.3	2082.4
20°	2494.3	2492.9	2488.0	2484.2	2467.9	2444.6	2414.4	2361.6	2287.3	2191.8	2131.4
22.5°	2557.1	2549.5	2551.6	2540.8	2530.4	2516.8	2490.8	2440.8	2359.5	2252.9	2187.6
25°	2608.2	2604.0	2602.6	2597.7	2594.3	2590.1	2570.3	2525.5	2436.3	2324.8	2250.1
27.5°	2646.7	2643.9	2653.3	2652.6	2665.5	2665.8	2652.3	2604.3	2520.7	2395.6	2315.8
30°	2685.6	2684.9	2701.6	2712.3	2726.2	2738.4	2726.9	2686.3	2598.1	2474.1	2390.1
32.5°	2732.1	2730.0	2749.1	2766.5	2787.3	2808.2	2801.6	2764.8	2683.5	2554.3	2464.4
35°	2779.0	2780.4	2801.2	2819.6	2849.8	2876.9	2876.6	2849.8	2772.8	2644.6	2548.1
37.5°	2833.5	2836.3	2850.5	2876.2	2912.7	2940.5	2952.6	2932.5	2864.4	2744.6	2650.2
40°	2965.5	2958.2	2991.5	3002.6	3020.7	3032.5	3047.4	3032.8	2976.6	2856.4	2768.6
42.5°	3099.5	3114.1	3154.0	3154.7	3171.4	3176.9	3177.6	3155.4	3098.1	2985.6	2879.4
45°	3086.7	3101.9	3162.0	3201.3	3283.2	3332.5	3336.0	3304.7	3242.6	3074.2	2923.8
47.5°	3088.1	3105.8	3156.8	3172.8	3276.6	3406.5	3483.9	3471.4	3371.4	3133.5	2982.8
50°	3130.4	3151.6	3200.2	3180.4	3252.3	3379.7	3497.5	3531.8	3413.1	3204.4	3058.2
52.5°	3200.2	3218.3	3271.7	3240.8	3291.2	3424.5	3576.6	3622.5	3515.9	3296.4	3135.3
55°	3275.6	3298.5	3346.1	3333.6	3384.6	3534.6	3702.3	3755.5	3642.9	3386.7	3201.6
57.5°	3365.8	3376.6	3439.8	3448.1	3511.0	3673.2	3850.6	3897.8	3765.2	3461.0	3252.3
60°	3419.0	3430.1	3511.0	3560.0	3671.1	3854.8	4030.5	4067.6	3891.9	3519.3	3283.9
62.5°	3491.9	3501.6	3560.7	3653.0	3845.7	4058.3	4229.8	4242.6	4016.9	3564.8	3282.9
65°	3517.6	3517.9	3581.8	3730.8	3987.1	4270.1	4439.2	4412.1	4131.9	3566.2	3230.4
67.5°	3178.7	3217.6	3333.9	3672.5	4079.1	4454.1	4637.5	4568.0	4203.4	3512.0	3109.6
70°	2557.8	2545.3	2720.7	3224.9	3950.6	4531.2	4773.6	4665.9	4203.1	3386.3	2902.6
72°	1735.5	1807.4	2101.5	2568.6	3550.6	4436.8	4812.5	4690.2	4147.5	3231.8	2693.6
72.5°	1564.3	1619.2	1853.2	2391.1	3449.2	4386.1	4800.0	4685.7	4123.9	3173.1	2627.6
75°	514.3	582.0	828.9	1375.4	2563.0	3852.7	4592.0	4585.7	3885.0	2846.7	2262.6
77.5°	202.8	206.3	230.2	526.8	1532.7	3043.6	4036.7	4168.7	3206.1	2346.7	1786.6
80°	147.2	143.8	148.6	191.3	607.7	2007.8	3156.1	3272.1	1908.1	1578.2	1249.4
82.5°	101.4	100.0	102.1	121.5	252.4	1102.2	2150.5	1890.8	683.4	705.3	712.2
85°	56.6	57.6	56.9	68.8	133.7	484.4	1060.1	752.5	105.9	127.1	295.5
87.5°	21.2	21.5	22.2	25.0	46.5	134.7	383.0	122.6	18.1	18.1	46.9
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1927.9	1927.9	1927.9	1927.9	1927.9	1927.9	1927.9	1927.9	1927.9	1927.9
2.5°	1925.8	1912.6	1897.7	1888.0	1874.8	1868.2	1859.5	1859.5	1855.7	1852.6
5°	1926.5	1897.0	1867.5	1841.4	1821.0	1801.2	1784.8	1773.0	1771.3	1767.5
7.5°	1932.4	1888.3	1842.1	1801.9	1766.8	1735.2	1709.1	1694.6	1685.2	1678.6
10°	1945.3	1884.8	1821.6	1761.9	1710.9	1670.2	1636.9	1619.6	1609.1	1606.7
12.5°	1965.8	1884.5	1802.2	1726.9	1661.6	1613.0	1578.2	1555.3	1547.3	1541.4
15°	1990.1	1889.4	1787.3	1693.5	1616.4	1559.1	1523.4	1499.8	1487.9	1485.5
17.5°	2023.4	1901.5	1775.5	1662.3	1573.7	1510.2	1472.3	1448.4	1437.6	1435.9
20°	2064.7	1918.2	1767.8	1634.5	1536.6	1469.2	1424.7	1399.4	1390.4	1390.4
22.5°	2112.3	1941.4	1764.7	1610.2	1501.8	1430.0	1383.8	1360.5	1355.0	1352.9
25°	2163.7	1974.1	1769.9	1592.8	1470.2	1395.2	1349.4	1325.1	1315.4	1314.0
27.5°	2223.4	2013.0	1783.5	1583.1	1447.0	1362.2	1317.4	1288.3	1279.6	1275.4
30°	2289.4	2059.9	1807.4	1585.2	1434.5	1337.9	1281.0	1255.3	1242.4	1237.6
32.5°	2363.4	2118.2	1846.6	1602.2	1433.1	1319.2	1251.8	1216.7	1202.9	1201.8
35°	2445.0	2191.5	1905.7	1631.4	1432.4	1295.6	1217.8	1181.3	1173.0	1173.3
37.5°	2550.9	2287.0	1959.2	1625.8	1387.2	1249.4	1179.2	1155.3	1148.0	1147.0
40°	2659.6	2343.2	1944.2	1591.8	1349.7	1211.2	1150.4	1131.7	1128.2	1126.1
42.5°	2722.1	2346.0	1952.2	1585.5	1327.9	1189.3	1128.9	1111.2	1105.6	1103.9
45°	2755.0	2388.0	1988.3	1588.0	1313.6	1172.0	1108.1	1089.3	1079.6	1077.5
47.5°	2820.0	2442.2	2025.8	1594.9	1304.9	1148.7	1085.5	1064.3	1054.2	1054.6
50°	2888.4	2492.5	2055.7	1602.2	1294.9	1128.2	1061.5	1036.9	1029.6	1026.8
52.5°	2948.8	2531.8	2069.6	1604.3	1282.4	1107.0	1032.7	1004.9	995.9	993.8
55°	2994.3	2550.5	2062.6	1598.7	1264.7	1079.2	999.0	965.7	954.6	952.5
57.5°	3021.4	2541.1	2025.8	1571.3	1235.8	1044.9	955.3	912.6	898.0	895.9
60°	3017.6	2488.0	1948.7	1516.4	1189.7	989.3	882.7	833.7	814.6	811.5
62.5°	2973.1	2388.4	1845.3	1437.9	1116.0	896.6	788.6	729.2	699.4	690.0
65°	2878.3	2241.1	1715.4	1309.5	987.6	773.7	664.3	593.8	513.6	494.8
67.5°	2716.5	2039.0	1537.6	1157.7	829.6	648.0	545.5	374.7	293.1	274.7
70°	2459.2	1764.4	1318.5	936.2	643.1	515.0	369.5	207.7	202.4	203.1
72°	2221.3	1552.2	1126.8	751.1	512.9	418.4	221.5	175.7	181.6	179.2
72.5°	2151.2	1492.5	1086.2	700.7	480.9	396.2	197.2	170.2	173.6	176.4
75°	1811.9	1165.7	781.6	480.2	356.6	264.9	146.5	144.8	149.3	150.4
77.5°	1372.7	831.0	501.8	304.5	237.5	151.1	117.4	117.4	121.9	122.6
80°	902.5	512.5	209.0	120.5	149.3	99.7	86.8	88.9	94.1	96.2
82.5°	570.9	276.4	62.5	63.2	76.0	65.3	58.7	61.1	65.6	66.0
85°	278.1	56.6	33.7	34.4	35.1	35.4	30.6	32.6	33.7	32.6
87.5°	68.4	14.2	12.8	13.9	11.1	9.4	9.4	8.0	5.6	5.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)