

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: P395098

Luminaire Tested: **LAS45S-T4-Switch-4**

Issue Date: 5/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P395098  
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-4  
Description: AREA SITE SMALL HOUSING, TYPE IV, WATTAGE SWITCH ON POSTION 4  
Light Source: (168) 4000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13115 lumens  
Efficiency: N/A  
Efficacy: 146.5 lumens/watt  
Luminous Opening: Rectangular (W 0.71' x L: 0.6' x H: 0')  
IES Classification: Type IV - Medium - Non-Cutoff  
BUG Rating: B3 - U0 - G3

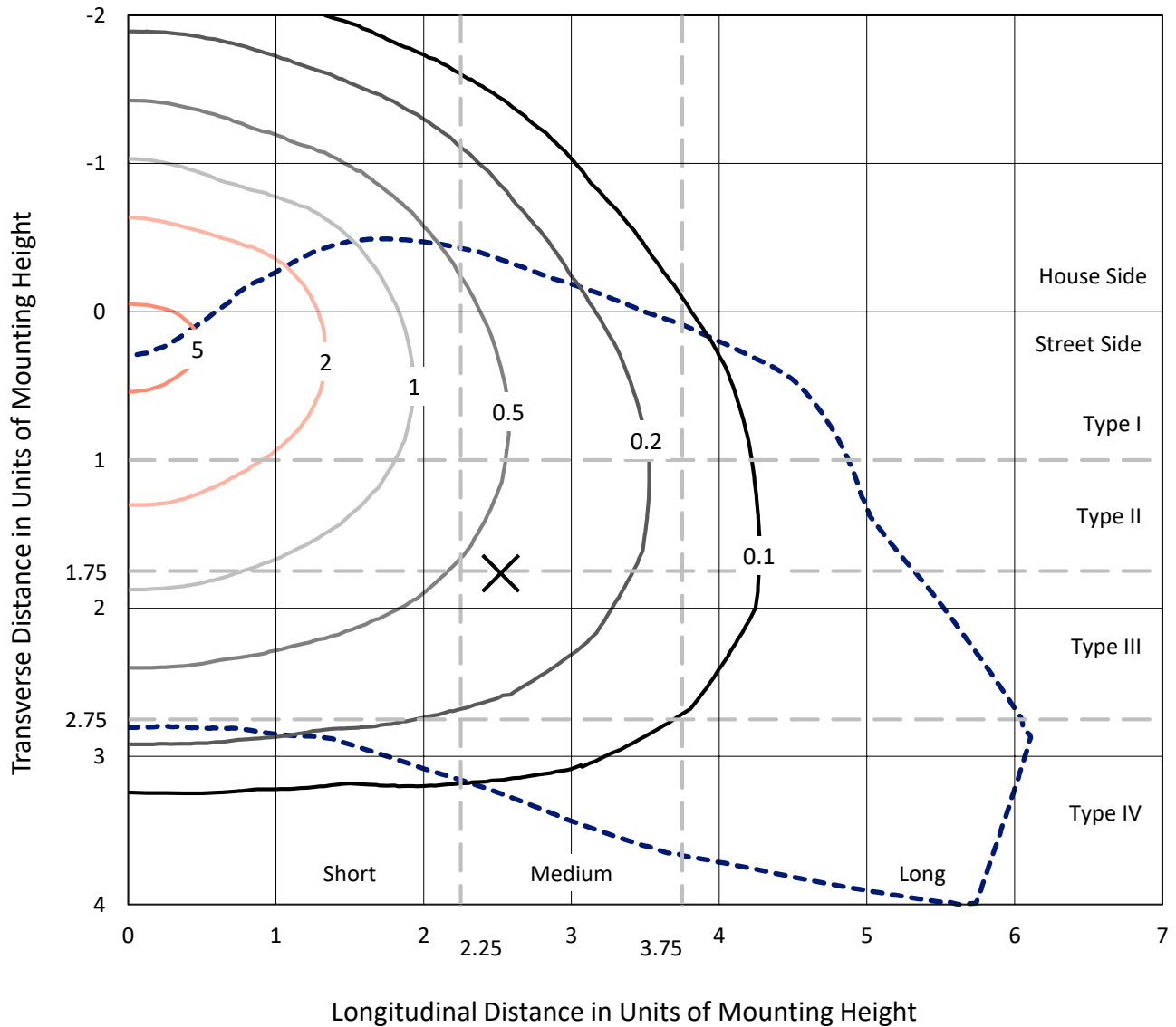
Input Watts (W): 89.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



REPORT NUMBER: P395098  
 CATALOG NUMBER: LAS45S-T4-Switch-4

### Iso-Footcandle Lines of Horizontal Illumination

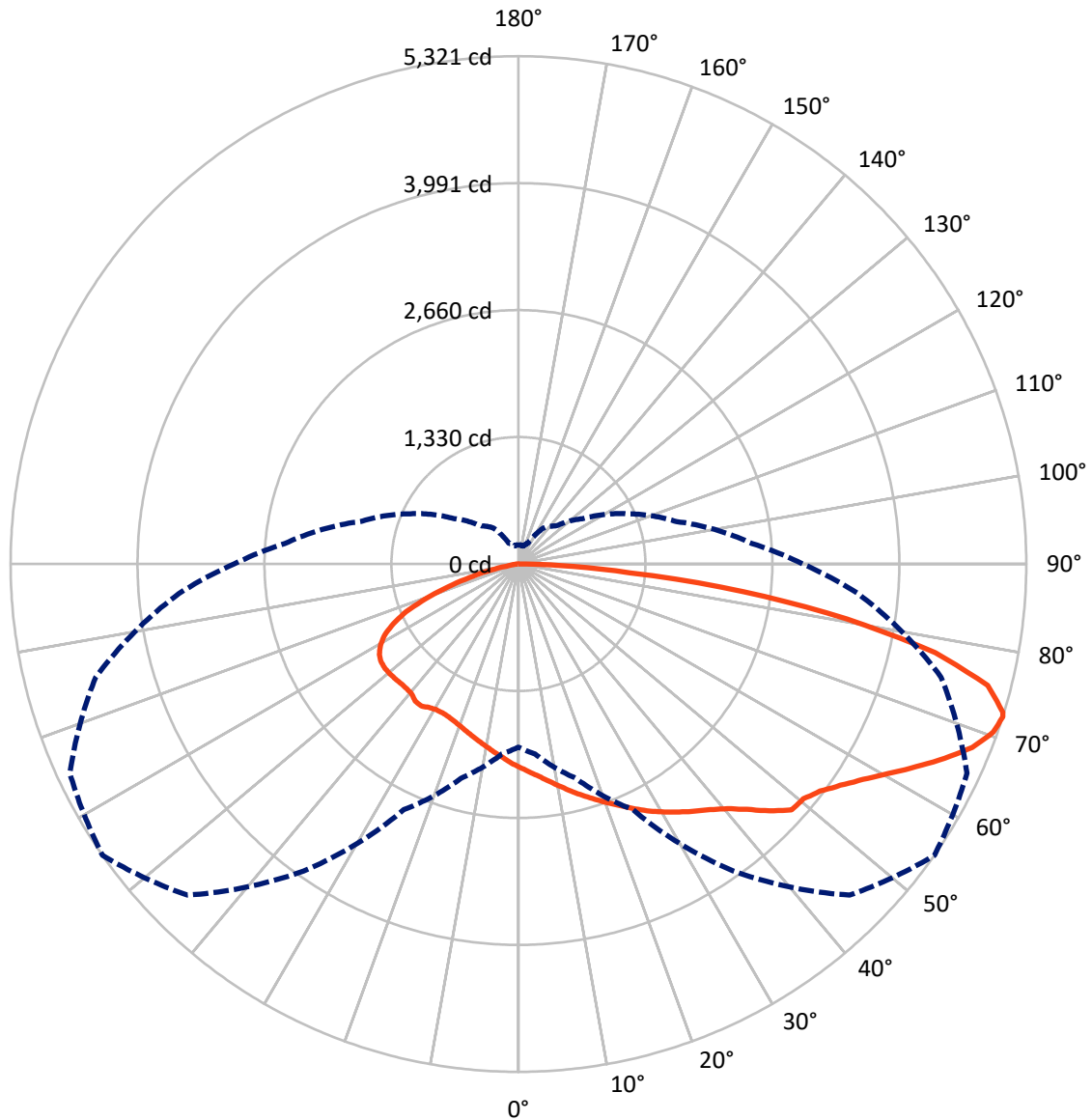
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 5.9 fc  
 Type IV - Medium - Non-Cutoff

REPORT NUMBER: P395098  
CATALOG NUMBER: LAS45S-T4-Switch-4

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P395098

CATALOG NUMBER: LAS45S-T4-Switch-4

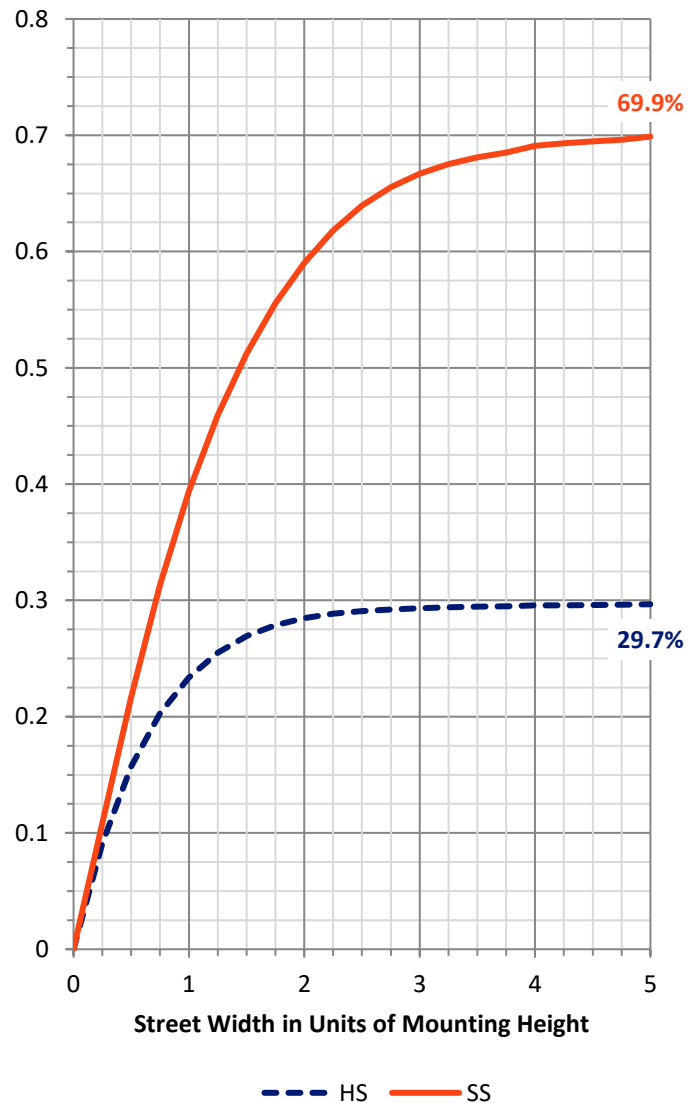
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3915.2	0.0	3915.2
	% Fixture	29.9	0.0	29.9
<b>Street Side</b>	Lumens	9199.8	0.0	9199.8
	% Fixture	70.1	0.0	70.1
<b>Total</b>	Lumens	13115.0	0.0	13115.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	204.1	1.6
10°-20°	620.2	4.7
20°-30°	1060.4	8.1
30°-40°	1537.0	11.7
40°-50°	2061.9	15.7
50°-60°	2527.3	19.3
60°-70°	2825.6	21.5
70°-80°	1936.3	14.8
80°-90°	342.1	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°	13115.0	100.0
0°-180°	13115.0	100.0



REPORT NUMBER: P395098

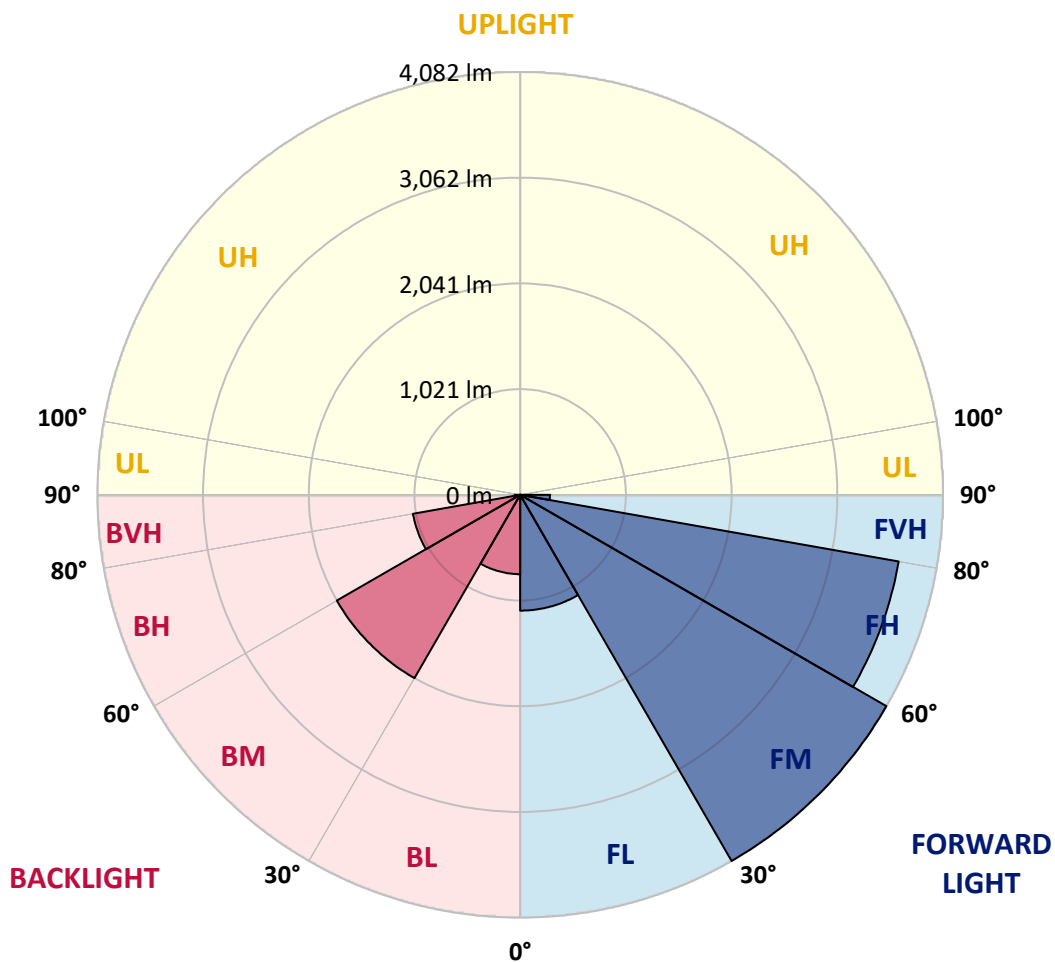
CATALOG NUMBER: LAS45S-T4-Switch-4

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1118.3	8.5			
FM	(30°-60°)	4082.5	31.1			
FH	(60°-80°)	3710.9	28.3			G2/5000
FVH	(80°-90°)	288.2	2.2			G3/500
BL	(0°-30°)	766.5	5.8	B2/1000		
BM	(30°-60°)	2043.7	15.6	B2/2500		
BH	(60°-80°)	1051.1	8.0	B3/2500		G3/2500
BVH	(80°-90°)	54.0	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type IV Medium





REPORT NUMBER: P395098  
 CATALOG NUMBER: LAS45S-T4-Switch-4

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2131.6	2131.6	2131.6	2131.6	2131.6	2131.6	2131.6	2131.6	2131.6	2131.6	2131.6
2.5°	2212.2	2203.7	2204.1	2201.0	2192.6	2184.9	2179.5	2165.3	2154.6	2142.7	2134.6
5°	2300.1	2291.6	2285.1	2278.2	2268.2	2253.3	2234.4	2211.0	2185.7	2159.6	2143.8
7.5°	2385.7	2378.0	2370.4	2360.0	2345.8	2323.5	2295.9	2262.1	2223.7	2183.4	2160.7
10°	2466.3	2462.5	2456.0	2441.8	2424.1	2399.1	2366.1	2323.5	2271.7	2217.6	2184.9
12.5°	2541.6	2543.9	2538.5	2526.6	2507.0	2476.3	2439.8	2388.4	2328.1	2254.4	2215.6
15°	2621.4	2614.5	2612.2	2603.0	2588.4	2557.7	2515.9	2456.0	2389.9	2304.3	2254.4
17.5°	2694.8	2686.7	2684.4	2675.2	2654.8	2631.4	2591.5	2528.5	2454.4	2355.4	2302.4
20°	2757.7	2756.2	2750.8	2746.6	2728.6	2702.8	2669.4	2611.1	2528.9	2423.3	2356.5
22.5°	2827.2	2818.8	2821.1	2809.2	2797.7	2782.7	2753.9	2698.6	2608.8	2490.9	2418.7
25°	2883.7	2879.1	2877.5	2872.1	2868.3	2863.7	2841.8	2792.3	2693.6	2570.4	2487.8
27.5°	2926.3	2923.2	2933.6	2932.8	2947.0	2947.4	2932.4	2879.4	2786.9	2648.7	2560.4
30°	2969.3	2968.5	2986.9	2998.8	3014.2	3027.6	3015.0	2970.0	2872.5	2735.5	2642.6
32.5°	3020.7	3018.4	3039.5	3058.7	3081.8	3104.8	3097.5	3056.8	2967.0	2824.2	2724.7
35°	3072.6	3074.1	3097.1	3117.5	3150.9	3180.8	3180.4	3150.9	3065.6	2924.0	2817.2
37.5°	3132.8	3135.9	3151.6	3180.1	3220.4	3251.1	3264.5	3242.2	3167.0	3034.5	2930.1
40°	3278.7	3270.7	3307.5	3319.8	3339.8	3352.8	3369.3	3353.2	3291.0	3158.2	3061.0
42.5°	3426.9	3443.0	3487.2	3488.0	3506.4	3512.5	3513.3	3488.7	3425.4	3301.0	3183.5
45°	3412.7	3429.6	3496.0	3539.4	3630.0	3684.5	3688.4	3653.8	3585.1	3398.9	3232.7
47.5°	3414.2	3433.8	3490.3	3507.9	3622.7	3766.3	3851.9	3838.1	3727.5	3464.5	3297.9
50°	3461.1	3484.5	3538.3	3516.4	3595.8	3736.7	3866.9	3904.9	3773.6	3542.9	3381.2
52.5°	3538.3	3558.2	3617.3	3583.2	3638.8	3786.3	3954.4	4005.1	3887.2	3644.6	3466.5
55°	3621.6	3646.9	3699.5	3685.7	3742.1	3908.0	4093.4	4152.2	4027.8	3744.4	3539.8
57.5°	3721.4	3733.3	3803.2	3812.4	3881.9	4061.2	4257.3	4309.6	4162.9	3826.6	3595.8
60°	3780.1	3792.4	3881.9	3936.0	4058.9	4262.0	4456.2	4497.3	4303.0	3891.1	3630.8
62.5°	3860.8	3871.5	3936.8	4038.9	4252.0	4486.9	4676.6	4690.8	4441.2	3941.4	3629.6
65°	3889.2	3889.5	3960.2	4124.9	4408.2	4721.1	4908.1	4878.2	4568.3	3942.9	3571.7
67.5°	3514.5	3557.5	3686.1	4060.4	4510.0	4924.6	5127.3	5050.5	4647.4	3883.0	3438.1
70°	2828.0	2814.2	3008.1	3565.5	4367.9	5009.8	5277.8	5158.8	4647.0	3744.0	3209.2
72°	1918.9	1998.3	2323.5	2839.9	3925.6	4905.4	5320.8	5185.7	4585.6	3573.2	2978.1
72.5°	1729.6	1790.2	2049.0	2643.7	3813.5	4849.4	5307.0	5180.7	4559.5	3508.3	2905.2
75°	568.6	643.5	916.4	1520.7	2833.8	4259.7	5077.0	5070.1	4295.4	3147.4	2501.7
77.5°	224.2	228.1	254.5	582.4	1694.6	3365.1	4463.1	4609.0	3544.8	2594.6	1975.3
80°	162.8	158.9	164.3	211.5	671.9	2219.9	3489.5	3617.7	2109.7	1744.9	1381.4
82.5°	112.1	110.6	112.9	134.4	279.1	1218.6	2377.6	2090.5	755.6	779.8	787.4
85°	62.6	63.7	63.0	76.0	147.8	535.6	1172.1	832.0	117.1	140.5	326.7
87.5°	23.4	23.8	24.6	27.6	51.4	149.0	423.5	135.5	20.0	20.0	51.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P395098  
 CATALOG NUMBER: LAS45S-T4-Switch-4

**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2131.6	2131.6	2131.6	2131.6	2131.6	2131.6	2131.6	2131.6	2131.6	2131.6
2.5°	2129.2	2114.7	2098.2	2087.4	2072.8	2065.5	2055.9	2055.9	2051.7	2048.2
5°	2130.0	2097.4	2064.7	2036.0	2013.3	1991.4	1973.4	1960.3	1958.4	1954.2
7.5°	2136.5	2087.8	2036.7	1992.2	1953.4	1918.5	1889.7	1873.6	1863.2	1855.9
10°	2150.7	2083.9	2014.1	1948.0	1891.6	1846.7	1809.8	1790.6	1779.1	1776.4
12.5°	2173.4	2083.6	1992.6	1909.3	1837.1	1783.3	1744.9	1719.6	1710.8	1704.2
15°	2200.3	2088.9	1976.1	1872.4	1787.2	1723.8	1684.3	1658.2	1645.1	1642.4
17.5°	2237.1	2102.4	1963.0	1837.8	1739.9	1669.7	1627.8	1601.4	1589.5	1587.5
20°	2282.8	2120.8	1954.6	1807.1	1698.9	1624.4	1575.2	1547.2	1537.2	1537.2
22.5°	2335.4	2146.5	1951.1	1780.3	1660.5	1581.0	1529.9	1504.2	1498.1	1495.8
25°	2392.2	2182.6	1956.9	1761.1	1625.5	1542.6	1491.9	1465.1	1454.3	1452.8
27.5°	2458.3	2225.6	1971.8	1750.3	1599.8	1506.1	1456.6	1424.4	1414.8	1410.2
30°	2531.2	2277.4	1998.3	1752.6	1586.0	1479.3	1416.3	1387.9	1373.7	1368.3
32.5°	2613.0	2341.9	2041.7	1771.4	1584.5	1458.5	1384.1	1345.3	1329.9	1328.8
35°	2703.2	2423.0	2107.0	1803.7	1583.7	1432.4	1346.4	1306.1	1296.9	1297.3
37.5°	2820.3	2528.5	2166.1	1797.5	1533.8	1381.4	1303.8	1277.3	1269.3	1268.1
40°	2940.5	2590.7	2149.6	1759.9	1492.3	1339.1	1271.9	1251.2	1247.4	1245.1
42.5°	3009.6	2593.8	2158.4	1753.0	1468.1	1314.9	1248.1	1228.6	1222.4	1220.5
45°	3046.1	2640.3	2198.4	1755.7	1452.4	1295.7	1225.1	1204.4	1193.6	1191.3
47.5°	3117.9	2700.1	2239.8	1763.4	1442.8	1270.0	1200.2	1176.7	1165.6	1166.0
50°	3193.5	2755.8	2272.8	1771.4	1431.7	1247.4	1173.7	1146.4	1138.3	1135.3
52.5°	3260.3	2799.2	2288.2	1773.7	1417.8	1224.0	1141.8	1111.1	1101.1	1098.8
55°	3310.6	2819.9	2280.5	1767.6	1398.3	1193.2	1104.6	1067.7	1055.4	1053.1
57.5°	3340.5	2809.6	2239.8	1737.3	1366.4	1155.2	1056.2	1009.0	992.8	990.5
60°	3336.3	2750.8	2154.6	1676.6	1315.3	1093.8	975.9	921.8	900.7	897.2
62.5°	3287.2	2640.6	2040.2	1589.8	1233.9	991.3	871.9	806.2	773.2	762.9
65°	3182.4	2477.9	1896.6	1447.8	1091.9	855.4	734.4	656.5	567.8	547.1
67.5°	3003.4	2254.4	1700.0	1280.0	917.2	716.4	603.1	414.3	324.0	303.7
70°	2719.0	1950.7	1457.8	1035.1	711.0	569.4	408.5	229.6	223.8	224.6
72°	2456.0	1716.1	1245.8	830.4	567.1	462.6	244.9	194.3	200.8	198.1
72.5°	2378.4	1650.1	1200.9	774.8	531.7	438.1	218.1	188.1	192.0	195.0
75°	2003.3	1288.8	864.2	531.0	394.3	292.9	162.0	160.1	165.1	166.2
77.5°	1517.7	918.7	554.8	336.7	262.6	167.0	129.8	129.8	134.8	135.5
80°	997.8	566.7	231.1	133.2	165.1	110.2	96.0	98.3	104.0	106.3
82.5°	631.2	305.6	69.1	69.9	84.1	72.2	64.9	67.6	72.6	72.9
85°	307.5	62.6	37.2	38.0	38.8	39.2	33.8	36.1	37.2	36.1
87.5°	75.6	15.7	14.2	15.4	12.3	10.4	10.4	8.8	6.1	6.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)