

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: P395088

Luminaire Tested: **LAS45S-T3-Switch-4**

Issue Date: 5/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P395088  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2004-740-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: LAS45S-T3-Switch-4  
Description: AREA SITE SMALL HOUSING, TYPE III, 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: 13360 lumens  
Efficiency: N/A  
Efficacy: 149.3 lumens/watt  
Luminous Opening: Rectangular (W 0.71' x L: 0.6' x H: 0')  
IES Classification: Type III - Medium - Semi-Cutoff  
BUG Rating: B3 - U0 - G3

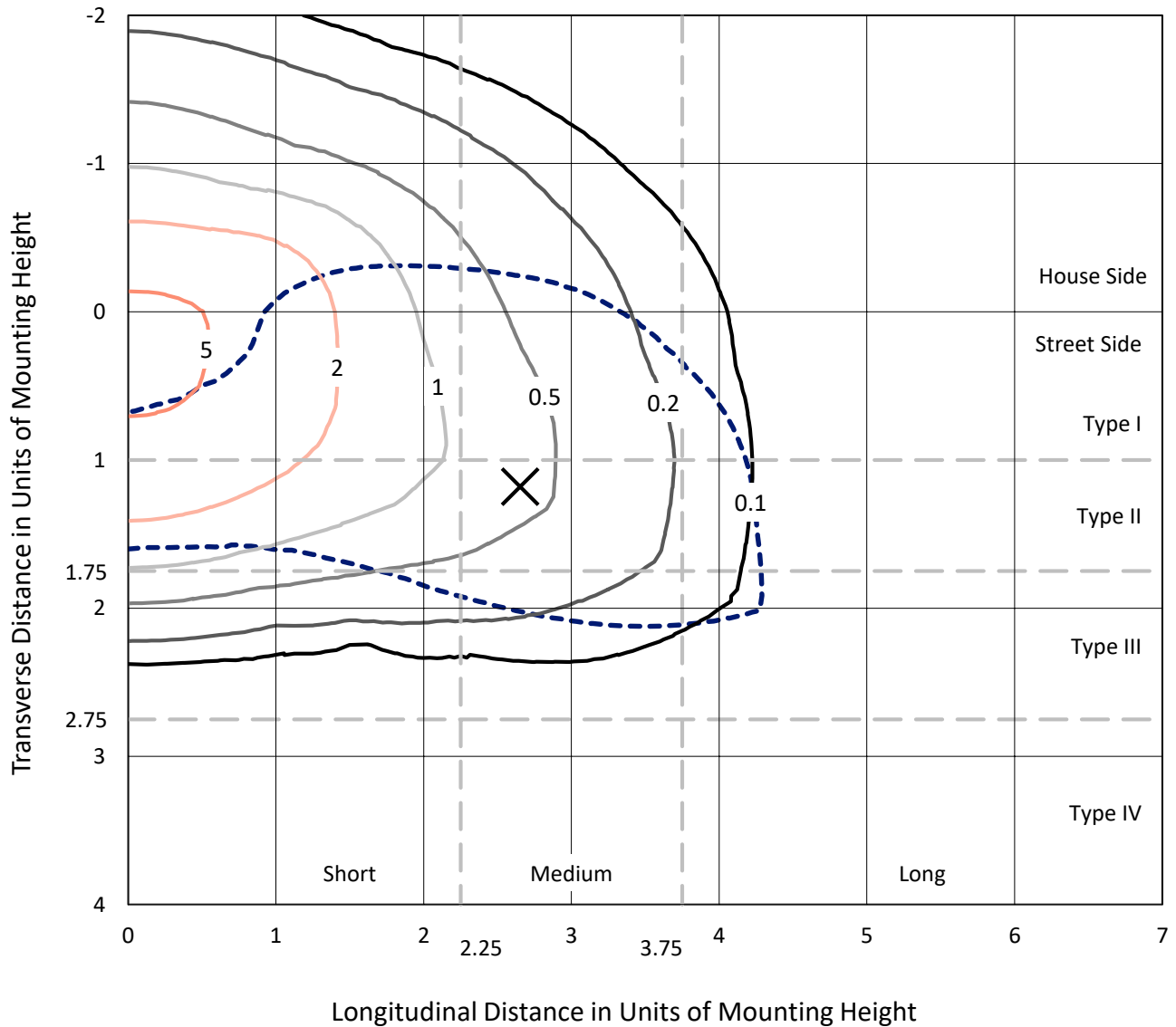
Input Watts (W): 89.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

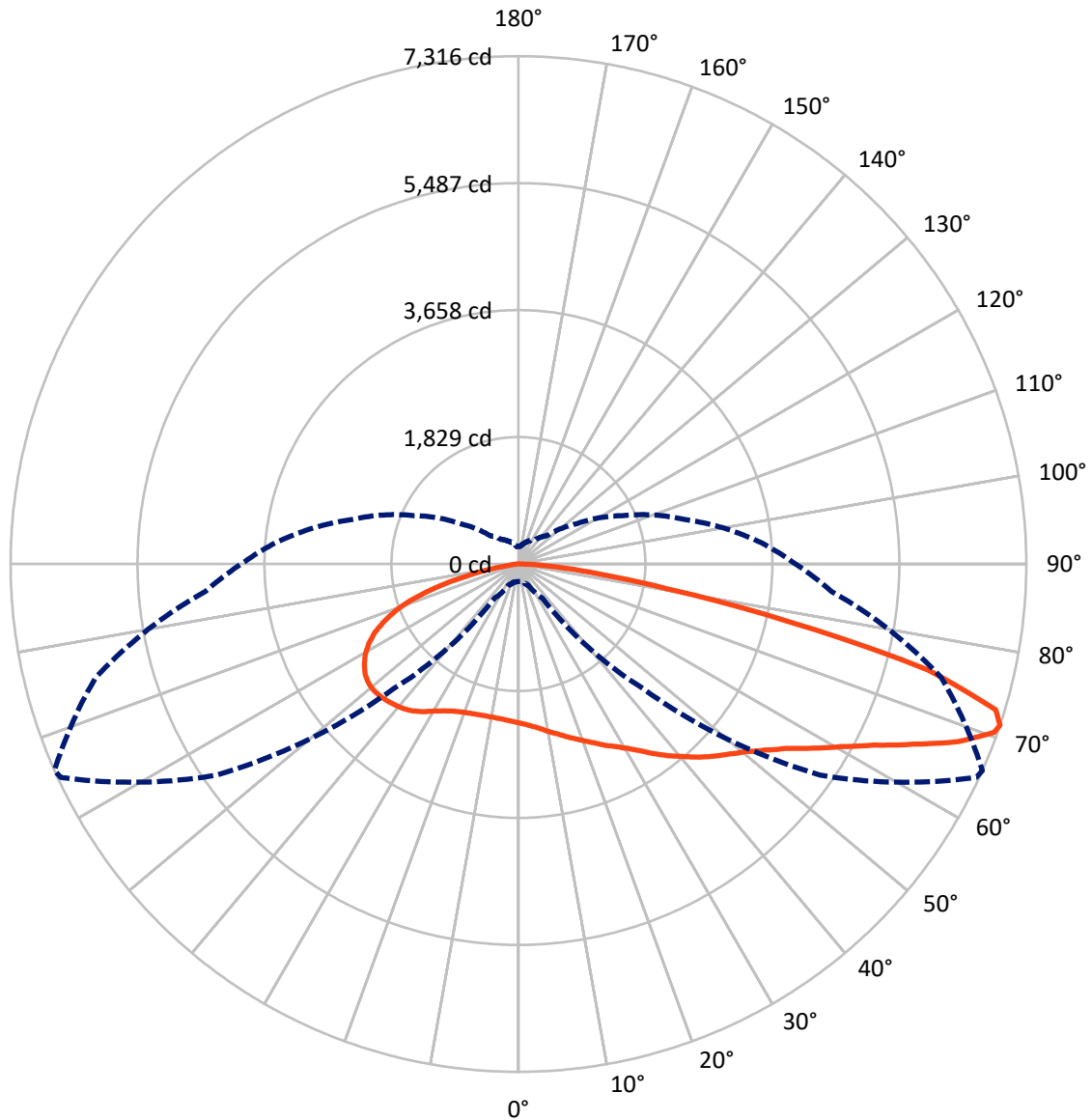
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 6 fc  
 Type III - Medium - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 66-Deg Lateral      - - - Horizontal Cone Through 71-Deg Vertical

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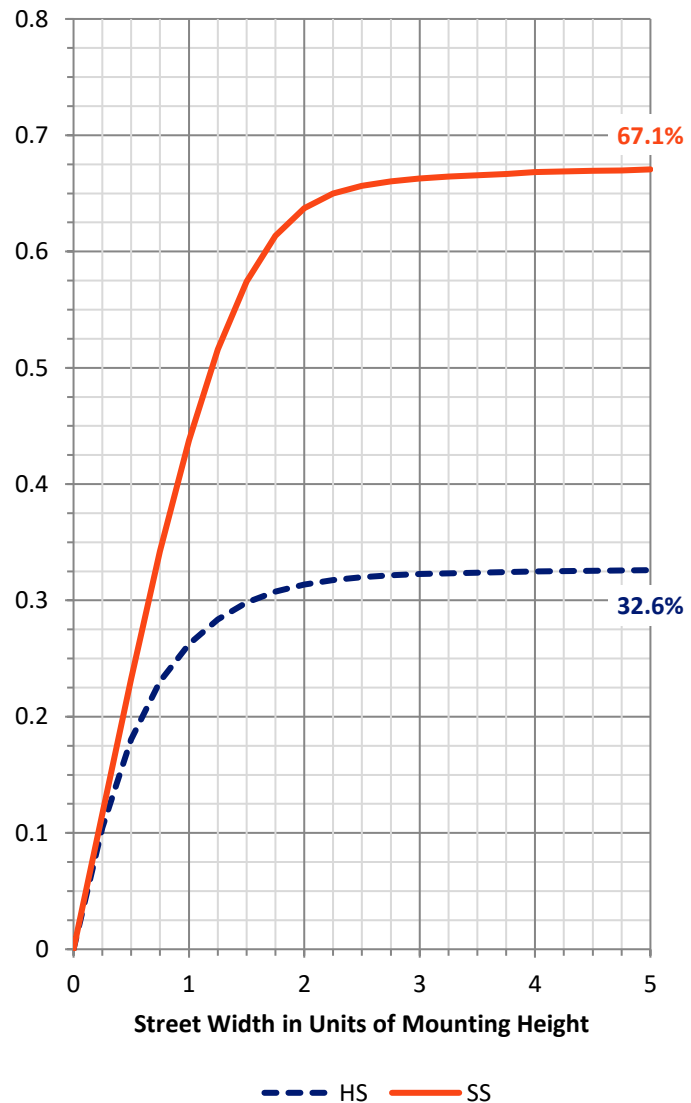
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4383.6	0.0	4383.6
	% Fixture	32.8	0.0	32.8
<b>Street Side</b>	Lumens	8976.4	0.0	8976.4
	% Fixture	67.2	0.0	67.2
<b>Total</b>	Lumens	13360.0	0.0	13360.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	219.7	1.6
10°-20°	664.5	5.0
20°-30°	1145.9	8.6
30°-40°	1721.1	12.9
40°-50°	2321.5	17.4
50°-60°	2842.6	21.3
60°-70°	2683.5	20.1
70°-80°	1553.1	11.6
80°-90°	208.1	1.6
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°	13360.0	100.0
0°-180°	13360.0	100.0



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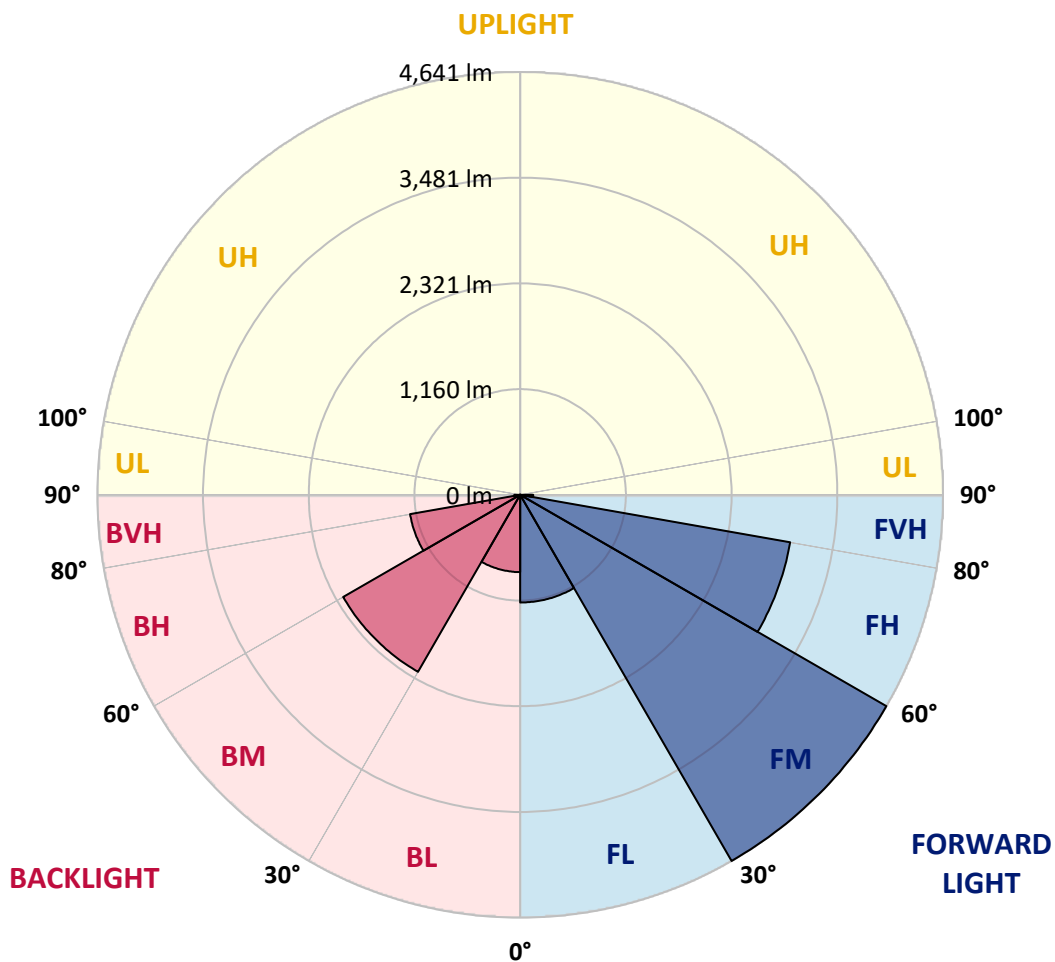
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1182.1	8.8			
FM (30°-60°)	4641.3	34.7			
FH (60°-80°)	3009.3	22.5			G2/5000
FVH (80°-90°)	143.7	1.1			G2/225
BL (0°-30°)	848.0	6.3	B2/1000		
BM (30°-60°)	2243.9	16.8	B2/2500		
BH (60°-80°)	1227.3	9.2	B3/2500		G3/2500
BVH (80°-90°)	64.4	0.5			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 III Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	66°	75°	85°
0°	2290.9	2290.9	2290.9	2290.9	2290.9	2290.9	2290.9	2290.9	2290.9	2290.9	2290.9
2.5°	2349.6	2348.5	2349.2	2346.5	2339.6	2336.9	2330.0	2318.5	2318.1	2308.1	2301.6
5°	2410.6	2409.5	2406.0	2401.8	2394.5	2391.1	2378.0	2356.5	2354.6	2340.4	2323.1
7.5°	2467.1	2466.7	2465.9	2457.9	2450.2	2441.4	2428.7	2406.4	2400.3	2379.9	2353.4
10°	2534.3	2530.8	2528.1	2521.2	2513.5	2502.4	2483.6	2458.3	2457.9	2430.2	2392.6
12.5°	2600.3	2601.8	2596.5	2589.9	2575.0	2565.0	2543.9	2520.5	2512.0	2484.4	2439.8
15°	2673.6	2674.4	2665.2	2659.8	2650.2	2635.6	2606.8	2580.0	2578.8	2543.5	2493.6
17.5°	2761.6	2765.4	2754.3	2747.0	2730.8	2709.0	2678.6	2649.4	2646.0	2610.3	2556.5
20°	2859.1	2854.5	2852.2	2837.6	2822.6	2793.8	2760.8	2727.4	2720.5	2681.7	2626.0
22.5°	2961.2	2960.0	2959.7	2939.7	2923.2	2882.5	2840.3	2806.5	2798.8	2760.0	2699.4
25°	3092.1	3096.0	3077.1	3061.4	3034.5	2981.9	2935.1	2886.7	2891.3	2847.9	2790.0
27.5°	3256.8	3256.8	3248.0	3223.0	3179.6	3105.9	3043.4	2980.8	2978.5	2943.2	2882.9
30°	3471.4	3469.9	3463.4	3439.6	3364.3	3278.7	3165.8	3091.7	3079.8	3033.0	3002.7
32.5°	3584.3	3590.1	3601.2	3596.2	3561.6	3478.7	3331.3	3208.4	3203.5	3150.9	3119.0
35°	3656.5	3662.2	3677.2	3692.2	3672.6	3619.6	3489.1	3368.2	3353.9	3276.0	3248.0
37.5°	3747.1	3748.6	3757.5	3778.2	3776.6	3736.3	3636.5	3517.9	3504.4	3415.0	3392.3
40°	3856.1	3856.5	3863.4	3878.4	3878.0	3841.1	3779.0	3667.2	3643.8	3569.7	3535.5
42.5°	3982.4	3972.1	3981.7	3995.1	3995.1	3967.1	3921.4	3812.7	3804.3	3716.8	3669.9
45°	4098.4	4094.2	4100.3	4107.6	4109.9	4096.1	4055.8	3961.3	3948.3	3855.7	3790.5
47.5°	4216.2	4212.0	4205.5	4230.8	4241.6	4258.5	4217.4	4106.4	4092.2	3969.0	3891.8
50°	4304.5	4301.9	4302.2	4329.1	4373.6	4418.6	4409.0	4275.0	4247.3	4086.1	3982.4
52.5°	4301.1	4297.6	4306.8	4371.3	4475.0	4587.5	4620.1	4481.5	4453.5	4232.0	4066.9
55°	4105.3	4115.3	4162.9	4321.0	4524.1	4770.6	4880.4	4740.7	4688.8	4403.6	4170.6
57.5°	3765.5	3746.3	3854.6	4088.0	4452.0	4893.5	5143.8	5036.3	5006.4	4604.8	4269.2
60°	3168.9	3165.8	3359.7	3674.5	4220.8	4934.2	5422.9	5392.6	5339.6	4842.8	4358.3
62.5°	2351.5	2362.7	2510.5	3011.9	3793.5	4809.8	5702.0	5801.8	5746.9	5123.8	4443.9
65°	1388.6	1392.1	1551.8	2026.3	3072.5	4473.1	5893.2	6310.2	6258.3	5485.1	4528.0
67.5°	582.4	617.0	722.9	1038.9	2102.0	3852.3	5895.9	6823.1	6829.2	5899.0	4600.5
70°	285.6	289.9	333.2	424.2	875.7	3001.5	5541.2	7235.8	7269.2	6256.4	4586.7
71°	253.4	253.8	272.2	336.7	601.6	2538.1	5297.4	7275.3	7316.4	6302.5	4524.9
72.5°	225.0	224.6	235.7	262.6	389.7	1778.3	4697.7	7131.4	7189.0	6165.4	4340.6
75°	180.8	182.0	190.0	204.6	271.0	807.8	3418.4	6014.1	6092.9	5220.6	3617.3
77.5°	137.8	140.9	151.3	162.4	202.7	488.7	2165.7	4098.0	3967.1	3318.2	2590.7
80°	103.3	104.4	111.3	123.6	149.0	306.4	1216.3	2121.9	2177.6	1750.7	1403.2
82.5°	71.8	74.1	79.5	85.6	96.4	193.9	737.5	1148.7	1140.3	750.6	547.9
85°	42.6	44.5	46.5	51.1	54.9	99.1	408.1	578.2	563.6	193.9	115.2
87.5°	15.7	16.5	18.4	17.3	20.0	32.6	140.1	144.7	141.3	33.4	24.6
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°	2290.9	2290.9	2290.9	2290.9	2290.9	2290.9	2290.9	2290.9	2290.9	2290.9	2290.9
2.5°	2293.9	2291.2	2280.9	2269.0	2258.6	2250.9	2241.7	2234.8	2232.5	2225.6	2227.1
5°	2308.9	2300.5	2275.1	2250.9	2226.0	2204.9	2186.1	2171.5	2160.7	2152.7	2158.8
7.5°	2333.1	2317.4	2280.1	2238.7	2198.3	2164.2	2134.2	2105.8	2086.2	2079.7	2075.9
10°	2366.9	2345.4	2290.1	2231.4	2174.9	2123.9	2073.9	2039.4	2006.4	1992.9	1985.3
12.5°	2409.5	2378.4	2305.5	2230.6	2154.6	2081.2	2006.8	1954.5	1910.0	1895.4	1886.2
15°	2460.6	2421.4	2331.2	2234.8	2132.7	2025.6	1934.2	1863.2	1809.0	1788.7	1783.3
17.5°	2515.5	2470.2	2362.3	2242.5	2110.4	1973.0	1861.3	1775.3	1715.8	1692.3	1691.6
20°	2583.0	2532.0	2401.8	2257.8	2088.2	1921.1	1788.7	1695.0	1634.0	1604.0	1598.7
22.5°	2661.0	2602.6	2455.6	2275.5	2069.7	1868.6	1720.0	1612.9	1550.3	1523.4	1517.3
25°	2743.1	2679.8	2520.1	2304.7	2053.6	1824.8	1655.5	1544.9	1480.4	1450.5	1444.3
27.5°	2845.6	2775.8	2596.1	2349.2	2045.5	1783.7	1600.2	1481.2	1415.9	1381.0	1378.7
30°	2960.8	2892.5	2697.4	2401.4	2048.6	1750.7	1552.6	1425.1	1354.5	1320.7	1312.2
32.5°	3082.1	3017.2	2804.9	2473.2	2056.7	1720.4	1504.2	1368.3	1294.6	1258.5	1253.1
35°	3216.5	3155.1	2918.6	2538.1	2060.5	1682.0	1447.4	1311.5	1236.2	1204.7	1198.6
37.5°	3360.9	3290.2	3034.9	2589.6	2050.5	1633.6	1391.7	1260.4	1188.2	1160.2	1156.8
40°	3500.2	3422.7	3128.6	2625.3	2033.6	1586.0	1342.6	1215.9	1152.2	1128.3	1124.1
42.5°	3622.7	3535.9	3200.4	2653.7	2015.2	1543.4	1301.9	1183.2	1126.8	1106.1	1102.2
45°	3736.0	3634.6	3271.4	2679.0	1997.5	1505.0	1271.6	1159.1	1106.8	1088.4	1086.1
47.5°	3826.6	3724.0	3328.6	2696.3	1972.6	1474.6	1244.3	1137.9	1091.5	1077.3	1076.1
50°	3916.8	3802.4	3377.4	2699.0	1945.0	1444.7	1220.5	1118.8	1077.7	1068.1	1068.1
52.5°	3996.3	3871.5	3411.5	2680.5	1906.2	1410.9	1191.3	1097.3	1061.5	1058.9	1059.6
55°	4074.2	3935.6	3420.4	2637.2	1861.3	1377.1	1159.1	1068.1	1036.6	1038.5	1040.0
57.5°	4139.1	3964.4	3395.8	2563.1	1807.1	1329.5	1115.3	1022.0	985.5	986.7	990.1
60°	4175.9	3959.8	3334.8	2471.3	1729.6	1266.6	1050.4	948.3	896.1	886.5	891.5
62.5°	4195.5	3929.4	3231.5	2350.4	1638.6	1183.2	946.8	828.1	764.8	770.1	766.3
65°	4194.4	3875.3	3094.0	2203.3	1515.0	1046.6	809.3	685.3	642.7	628.9	627.7
67.5°	4167.5	3773.2	2897.5	1999.5	1348.3	871.5	645.0	546.7	503.3	501.8	496.8
70°	4064.6	3609.3	2632.2	1768.7	1108.8	651.5	492.6	411.9	373.2	325.6	323.6
71°	3993.2	3511.7	2477.5	1650.9	1000.9	575.9	433.8	368.6	308.3	251.1	251.1
72.5°	3782.8	3330.5	2264.0	1466.2	815.8	471.1	358.2	296.0	210.0	197.0	197.7
75°	3284.5	2847.6	1852.4	1101.1	551.7	323.3	249.9	193.9	144.0	156.6	160.9
77.5°	2469.8	2173.8	1376.7	693.0	314.0	206.2	172.8	127.5	114.4	129.0	128.6
80°	1415.5	1349.9	848.9	370.5	137.1	129.8	122.1	92.9	87.5	97.9	97.9
82.5°	696.4	748.3	463.8	138.2	63.0	75.6	78.3	64.9	61.0	66.0	67.6
85°	228.4	329.8	170.8	49.5	36.1	37.6	34.6	33.4	33.0	34.2	33.8
87.5°	33.0	59.5	24.6	19.2	15.0	13.1	10.7	10.0	8.4	7.3	6.9
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)