

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: P395095

Luminaire Tested: **LAS45S-T4-Switch-1**

Issue Date: 5/3/2020

Test Information

Test Method: LM-79-08
Report Number: P395095
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-1
Description: AREA SITE SMALL HOUSING, TYPE IV, WATTAGE SWITCH ON POSTION 1
Light Source: (168) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18095 lumens
Efficiency: N/A
Efficacy: 133.6 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

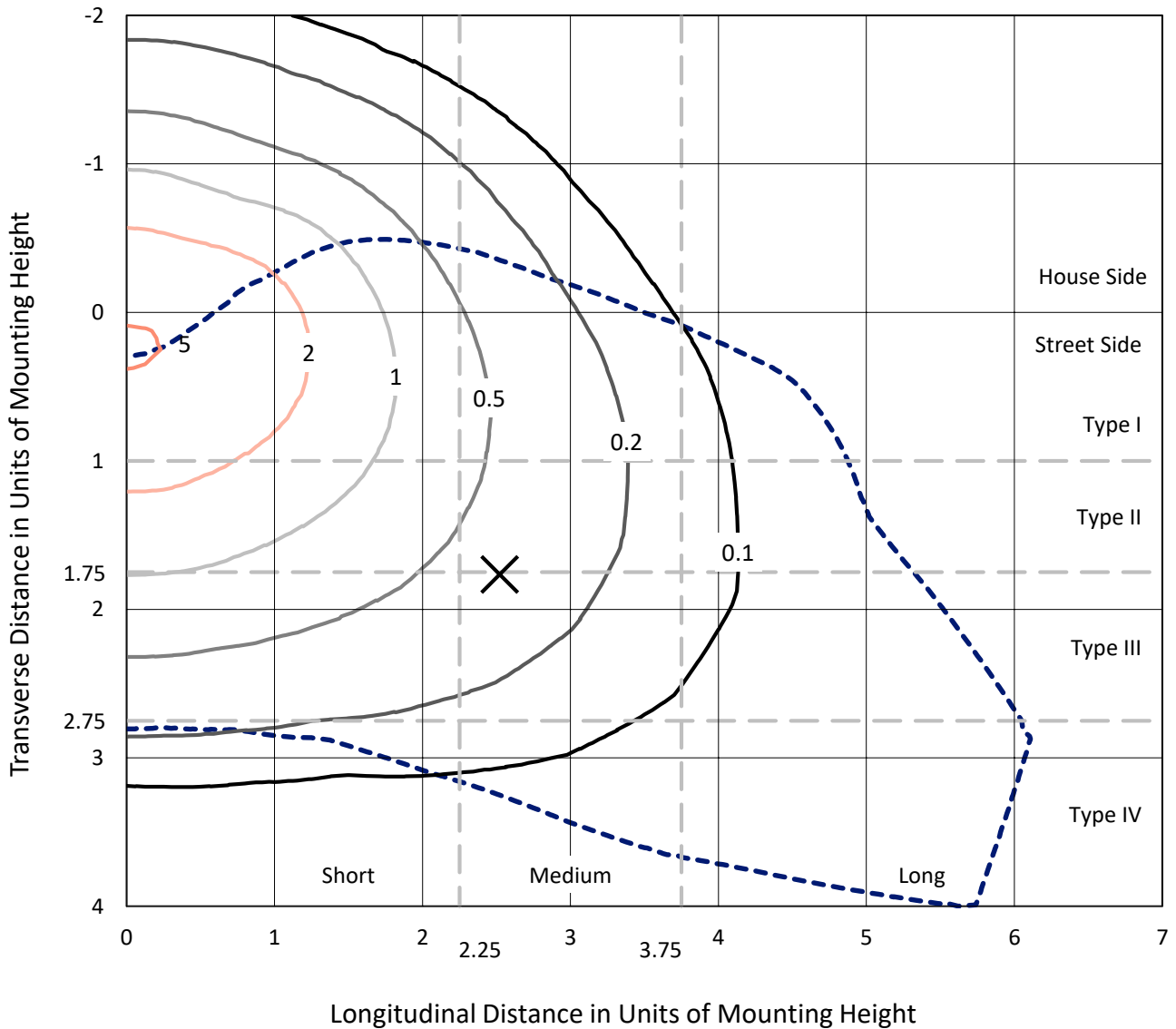
Input Watts (W): 135.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

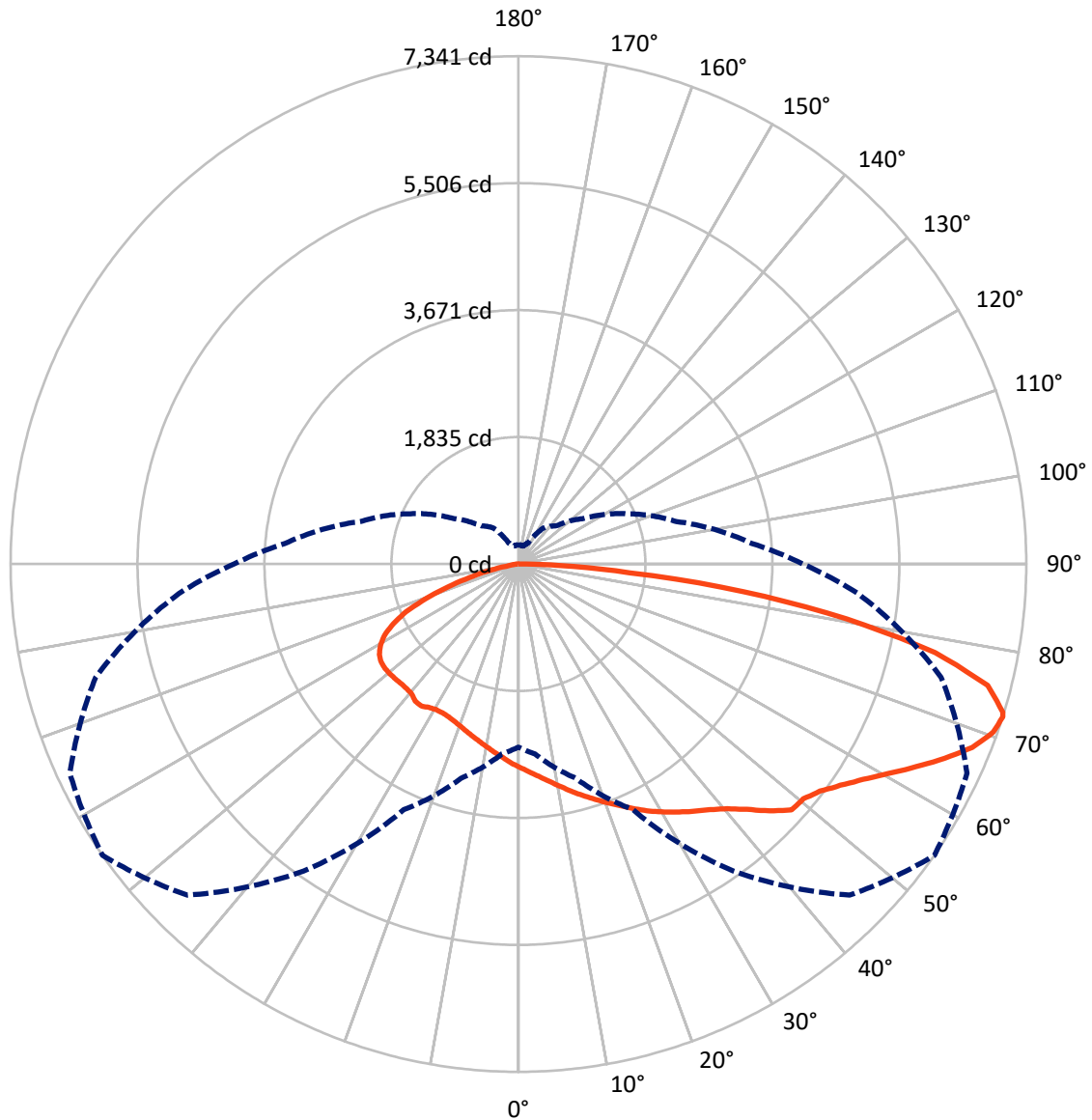
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.2 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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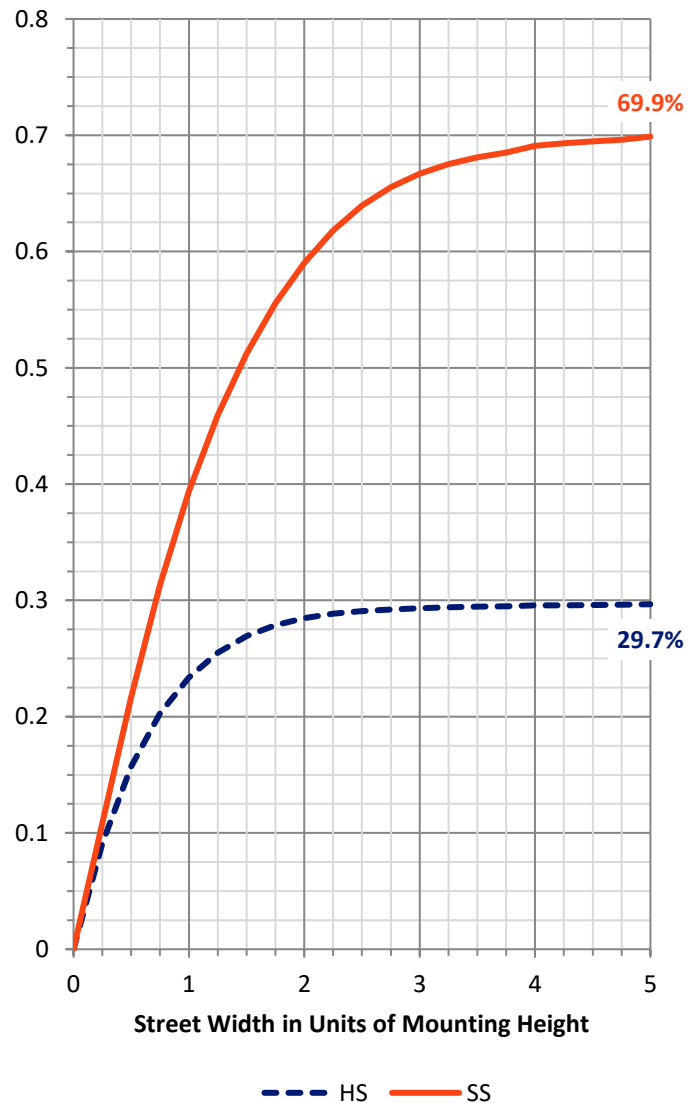
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5401.9	0.0	5401.9
	% Fixture	29.9	0.0	29.9
Street Side	Lumens	12693.1	0.0	12693.1
	% Fixture	70.1	0.0	70.1
Total	Lumens	18095.0	0.0	18095.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	281.6	1.6
10°-20°	855.7	4.7
20°-30°	1463.1	8.1
30°-40°	2120.6	11.7
40°-50°	2844.9	15.7
50°-60°	3487.0	19.3
60°-70°	3898.6	21.5
70°-80°	2671.6	14.8
80°-90°	472.0	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°	18095.0	100.0
0°-180°	18095.0	100.0



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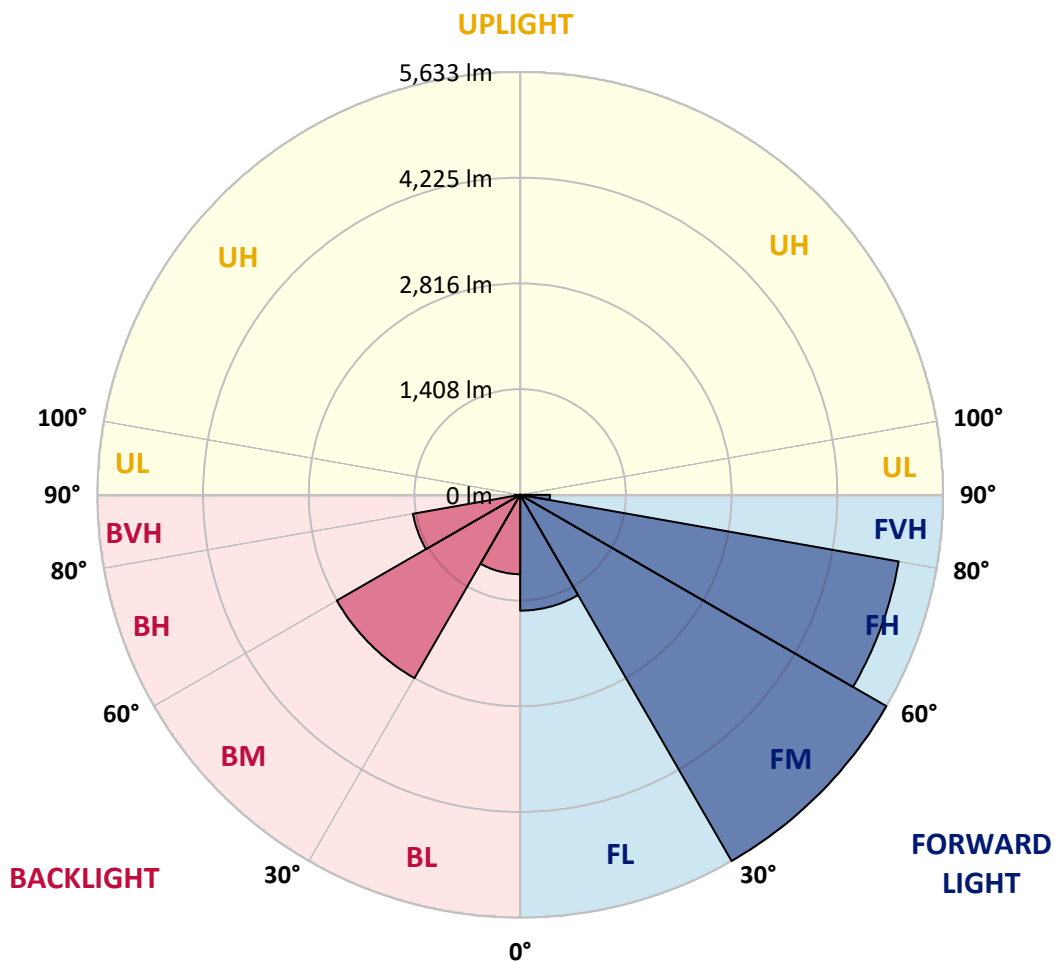
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1542.9	8.5			
FM	(30°-60°)	5632.7	31.1			
FH	(60°-80°)	5120.0	28.3			G3/7500
FVH	(80°-90°)	397.6	2.2			G3/500
BL	(0°-30°)	1057.5	5.8	B3/2500		
BM	(30°-60°)	2819.8	15.6	B3/5000		
BH	(60°-80°)	1450.2	8.0	B3/2500		G3/2500
BVH	(80°-90°)	74.4	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2940.9	2940.9	2940.9	2940.9	2940.9	2940.9	2940.9	2940.9	2940.9	2940.9	2940.9
2.5°	3052.2	3040.5	3041.1	3036.8	3025.2	3014.6	3007.2	2987.6	2972.7	2956.3	2945.2
5°	3173.5	3161.8	3152.8	3143.3	3129.5	3108.9	3082.9	3050.6	3015.6	2979.6	2957.9
7.5°	3291.6	3281.0	3270.4	3256.1	3236.5	3205.8	3167.7	3121.0	3068.1	3012.5	2981.2
10°	3402.8	3397.6	3388.5	3368.9	3344.6	3310.1	3264.6	3205.8	3134.3	3059.6	3014.6
12.5°	3506.7	3509.8	3502.4	3486.0	3459.0	3416.6	3366.3	3295.3	3212.2	3110.4	3056.9
15°	3616.8	3607.3	3604.1	3591.4	3571.3	3528.9	3471.2	3388.5	3297.4	3179.3	3110.4
17.5°	3718.0	3706.9	3703.7	3691.0	3662.9	3630.6	3575.5	3488.7	3386.4	3249.8	3176.7
20°	3804.9	3802.8	3795.4	3789.5	3764.6	3729.1	3683.1	3602.5	3489.2	3343.5	3251.4
22.5°	3900.8	3889.1	3892.3	3875.9	3860.0	3839.3	3799.6	3723.3	3599.4	3436.7	3337.2
25°	3978.6	3972.3	3970.2	3962.7	3957.5	3951.1	3920.9	3852.6	3716.4	3546.4	3432.5
27.5°	4037.4	4033.2	4047.5	4046.4	4066.0	4066.6	4045.9	3972.8	3845.2	3654.5	3532.6
30°	4096.8	4095.7	4121.1	4137.6	4158.7	4177.3	4159.8	4097.8	3963.3	3774.2	3646.0
32.5°	4167.7	4164.6	4193.7	4220.2	4252.0	4283.8	4273.7	4217.5	4093.6	3896.5	3759.3
35°	4239.3	4241.4	4273.2	4301.2	4347.3	4388.6	4388.1	4347.3	4229.7	4034.3	3887.0
37.5°	4322.4	4326.7	4348.4	4387.6	4443.2	4485.6	4504.1	4473.4	4369.6	4186.8	4042.7
40°	4523.7	4512.6	4563.4	4580.4	4607.9	4625.9	4648.7	4626.5	4540.7	4357.4	4223.4
42.5°	4728.2	4750.4	4811.3	4812.4	4837.8	4846.3	4847.4	4813.5	4726.1	4554.4	4392.3
45°	4708.6	4731.9	4823.5	4883.4	5008.4	5083.6	5088.9	5041.2	4946.4	4689.5	4460.1
47.5°	4710.7	4737.7	4815.6	4839.9	4998.3	5196.4	5314.6	5295.5	5142.9	4780.1	4550.2
50°	4775.3	4807.6	4881.8	4851.6	4961.2	5155.7	5335.2	5387.7	5206.5	4888.1	4665.1
52.5°	4881.8	4909.3	4990.9	4943.8	5020.6	5224.0	5456.0	5525.9	5363.3	5028.5	4782.7
55°	4996.7	5031.7	5104.3	5085.2	5163.1	5391.9	5647.8	5728.8	5557.2	5166.2	4883.9
57.5°	5134.5	5150.9	5247.3	5260.0	5355.9	5603.3	5873.9	5946.0	5743.6	5279.6	4961.2
60°	5215.5	5232.5	5355.9	5430.6	5600.1	5880.3	6148.3	6205.0	5937.0	5368.6	5009.5
62.5°	5326.7	5341.6	5431.6	5572.5	5866.5	6190.7	6452.4	6472.0	6127.7	5438.0	5007.9
65°	5365.9	5366.5	5463.9	5691.2	6082.1	6513.8	6771.8	6730.5	6303.0	5440.1	4927.9
67.5°	4849.0	4908.3	5085.7	5602.2	6222.5	6794.6	7074.3	6968.3	6412.1	5357.5	4743.5
70°	3901.8	3882.8	4150.3	4919.4	6026.5	6912.2	7281.9	7117.7	6411.6	5165.7	4427.8
72°	2647.5	2757.1	3205.8	3918.3	5416.3	6768.1	7341.2	7154.8	6326.8	4930.0	4108.9
72.5°	2386.3	2470.0	2827.1	3647.6	5261.6	6690.7	7322.2	7147.9	6290.8	4840.5	4008.3
75°	784.5	887.8	1264.4	2098.2	3909.8	5877.1	7004.9	6995.3	5926.4	4342.6	3451.6
77.5°	309.3	314.6	351.2	803.6	2338.1	4642.9	6157.9	6359.2	4890.8	3579.8	2725.4
80°	224.6	219.3	226.7	291.9	927.0	3062.8	4814.5	4991.4	2910.7	2407.5	1905.9
82.5°	154.7	152.6	155.7	185.4	385.1	1681.3	3280.5	2884.3	1042.5	1075.8	1086.4
85°	86.3	87.9	86.9	104.9	203.9	738.9	1617.2	1147.9	161.6	193.9	450.8
87.5°	32.3	32.8	33.9	38.1	71.0	205.5	584.3	187.0	27.5	27.5	71.5
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°	2940.9	2940.9	2940.9	2940.9	2940.9	2940.9	2940.9	2940.9	2940.9	2940.9
2.5°	2937.8	2917.6	2894.9	2880.0	2859.9	2849.8	2836.6	2836.6	2830.8	2826.0
5°	2938.8	2893.8	2848.8	2809.0	2777.8	2747.6	2722.7	2704.7	2702.0	2696.2
7.5°	2947.8	2880.6	2810.1	2748.7	2695.2	2647.0	2607.2	2585.0	2570.7	2560.6
10°	2967.4	2875.3	2778.9	2687.7	2609.9	2547.9	2497.0	2470.6	2454.7	2451.0
12.5°	2998.7	2874.7	2749.2	2634.2	2534.7	2460.5	2407.5	2372.6	2360.4	2351.4
15°	3035.8	2882.1	2726.4	2583.4	2465.8	2378.4	2323.8	2287.8	2269.8	2266.1
17.5°	3086.6	2900.7	2708.4	2535.7	2400.6	2303.7	2246.0	2209.4	2193.0	2190.3
20°	3149.6	2926.1	2696.7	2493.3	2344.0	2241.2	2173.4	2134.7	2121.0	2121.0
22.5°	3222.2	2961.6	2692.0	2456.3	2291.0	2181.3	2110.9	2075.4	2066.9	2063.7
25°	3300.6	3011.4	2699.9	2429.8	2242.8	2128.4	2058.4	2021.4	2006.5	2004.4
27.5°	3391.7	3070.7	2720.6	2414.9	2207.3	2078.0	2009.7	1965.2	1952.0	1945.6
30°	3492.4	3142.2	2757.1	2418.1	2188.2	2041.0	1954.1	1914.9	1895.3	1887.9
32.5°	3605.2	3231.2	2817.0	2444.1	2186.1	2012.4	1909.6	1856.1	1834.9	1833.3
35°	3729.7	3343.0	2907.0	2488.6	2185.0	1976.3	1857.7	1802.1	1789.4	1789.9
37.5°	3891.2	3488.7	2988.6	2480.1	2116.2	1905.9	1798.9	1762.3	1751.2	1749.6
40°	4057.0	3574.5	2965.8	2428.2	2059.0	1847.6	1754.9	1726.3	1721.0	1717.8
42.5°	4152.4	3578.7	2978.0	2418.6	2025.6	1814.3	1722.1	1695.1	1686.6	1683.9
45°	4202.7	3642.8	3033.1	2422.4	2003.9	1787.8	1690.3	1661.7	1646.9	1643.7
47.5°	4301.8	3725.4	3090.3	2433.0	1990.6	1752.3	1655.9	1623.6	1608.2	1608.7
50°	4406.1	3802.2	3135.9	2444.1	1975.3	1721.0	1619.3	1581.7	1570.6	1566.3
52.5°	4498.3	3862.1	3157.1	2447.3	1956.2	1688.7	1575.4	1533.0	1519.2	1516.0
55°	4567.7	3890.7	3146.5	2438.8	1929.2	1646.3	1524.0	1473.1	1456.2	1453.0
57.5°	4609.0	3876.4	3090.3	2396.9	1885.2	1593.9	1457.2	1392.1	1369.8	1366.6
60°	4603.2	3795.4	2972.7	2313.2	1814.8	1509.1	1346.5	1271.8	1242.7	1237.9
62.5°	4535.4	3643.3	2814.9	2193.5	1702.5	1367.7	1203.0	1112.4	1066.8	1052.5
65°	4390.8	3418.7	2616.8	1997.5	1506.5	1180.2	1013.3	905.8	783.4	754.8
67.5°	4143.9	3110.4	2345.5	1766.0	1265.5	988.4	832.2	571.6	447.1	419.0
70°	3751.4	2691.4	2011.3	1428.1	981.0	785.6	563.6	316.8	308.8	309.9
72°	3388.5	2367.8	1718.9	1145.8	782.4	638.3	338.0	268.0	277.0	273.3
72.5°	3281.5	2276.7	1656.9	1069.0	733.6	604.4	300.9	259.6	264.9	269.1
75°	2764.0	1778.2	1192.4	732.6	544.0	404.2	223.5	220.9	227.8	229.4
77.5°	2093.9	1267.6	765.4	464.6	362.3	230.4	179.0	179.0	185.9	187.0
80°	1376.7	781.8	318.9	183.8	227.8	152.0	132.4	135.6	143.6	146.7
82.5°	870.8	421.6	95.3	96.4	116.0	99.6	89.5	93.2	100.1	100.6
85°	424.3	86.3	51.4	52.4	53.5	54.0	46.6	49.8	51.4	49.8
87.5°	104.4	21.7	19.6	21.2	17.0	14.3	14.3	12.2	8.5	9.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)