

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: McGRAW-EDISON

Report Number: P158403

Luminaire Tested: **VTS-F11-LED-E1-SL3-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158403
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33713)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: VTS-F11-LED-E1-SL3-8030
Description: VENTUS LED SITE LUMINAIRE
(11) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL
Light Source: (77) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

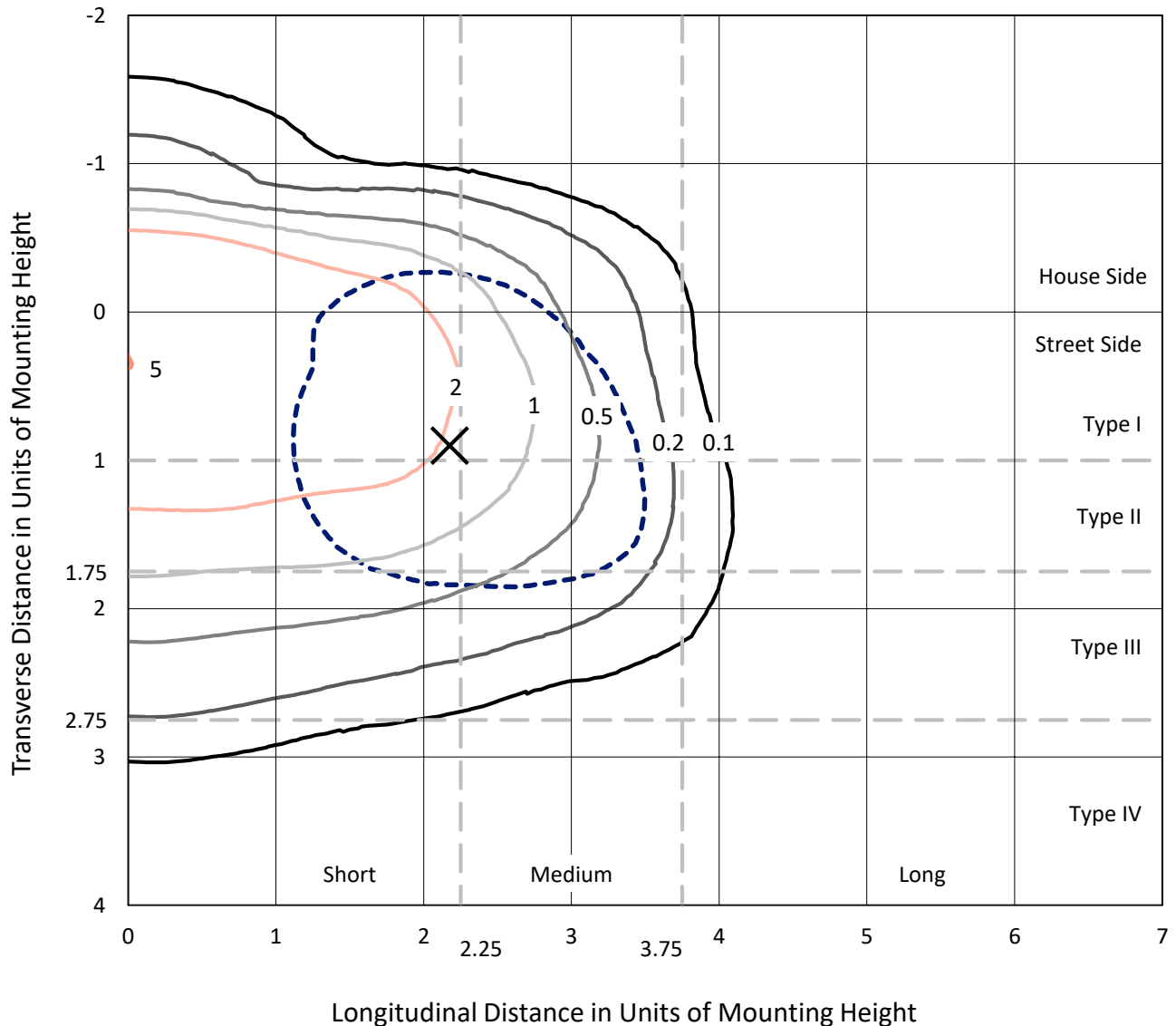
Lumens per Lamp: N/A
Luminaire Lumens: 23121.6 lumens
Efficiency: N/A
Efficacy: 81.8 lumens/watt
Luminous Opening: Rectangular (W 1.83' x L: 1' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 282.7
Input Voltage (V): NR
Input Current (A_{in}): 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

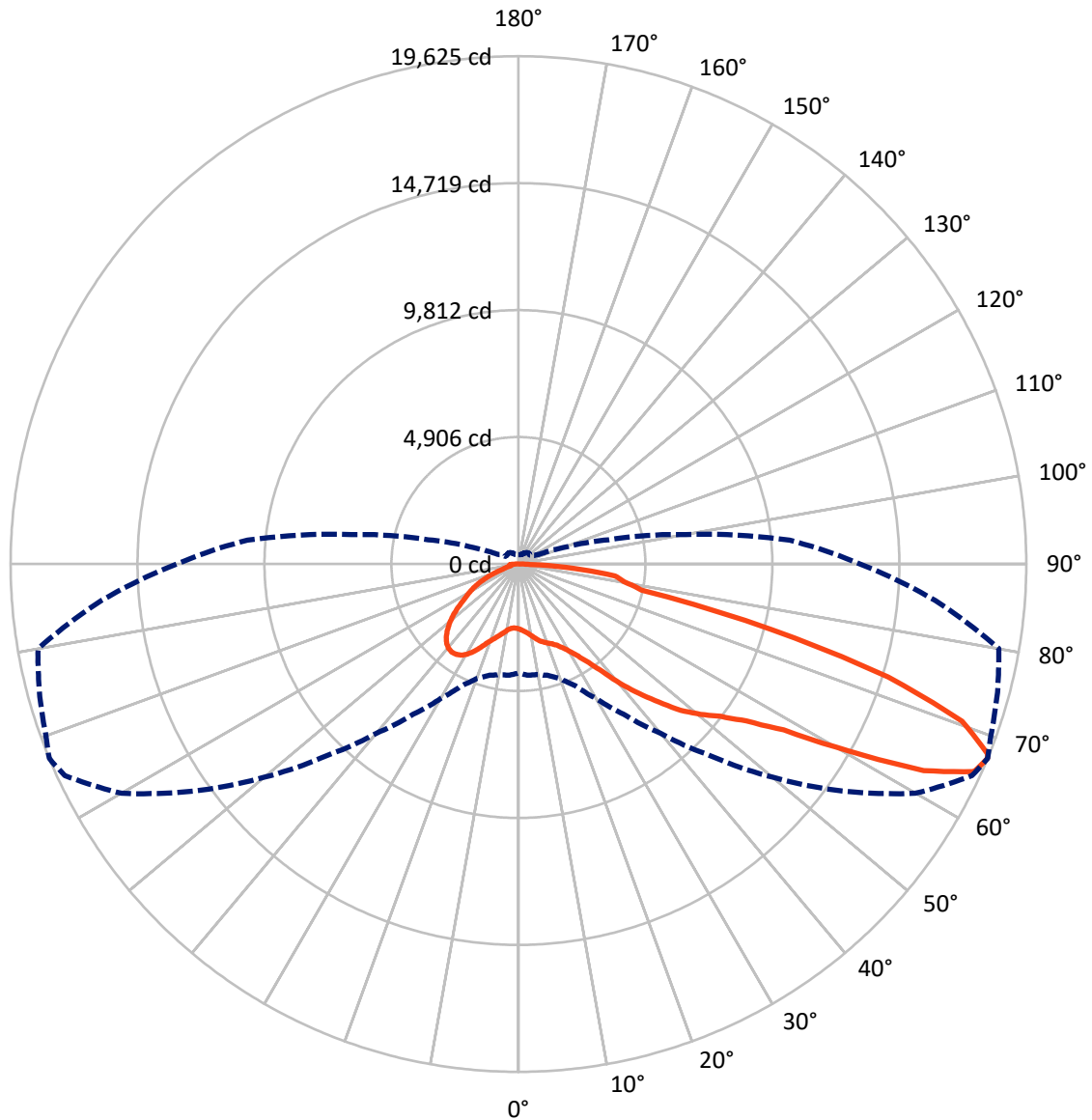
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67.5-Deg Lateral - - - Horizontal Cone Through 67-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 5546.9 | 0.0 | 5546.9 |
| | % Fixture | 24.0 | 0.0 | 24.0 |
| Street Side | Lumens | 17574.6 | 0.0 | 17574.6 |
| | % Fixture | 76.0 | 0.0 | 76.0 |
| Total | Lumens | 23121.6 | 0.0 | 23121.6 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 249.1 | 1.1 |
| 10°-20° | 848.6 | 3.7 |
| 20°-30° | 1515.1 | 6.6 |
| 30°-40° | 2220.4 | 9.6 |
| 40°-50° | 3430.8 | 14.8 |
| 50°-60° | 4995.9 | 21.6 |
| 60°-70° | 6508.0 | 28.1 |
| 70°-80° | 2913.2 | 12.6 |
| 80°-90° | 440.5 | 1.9 |
| 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° | 23121.6 | 100.0 |
| 0°-180° | 23121.6 | 100.0 |



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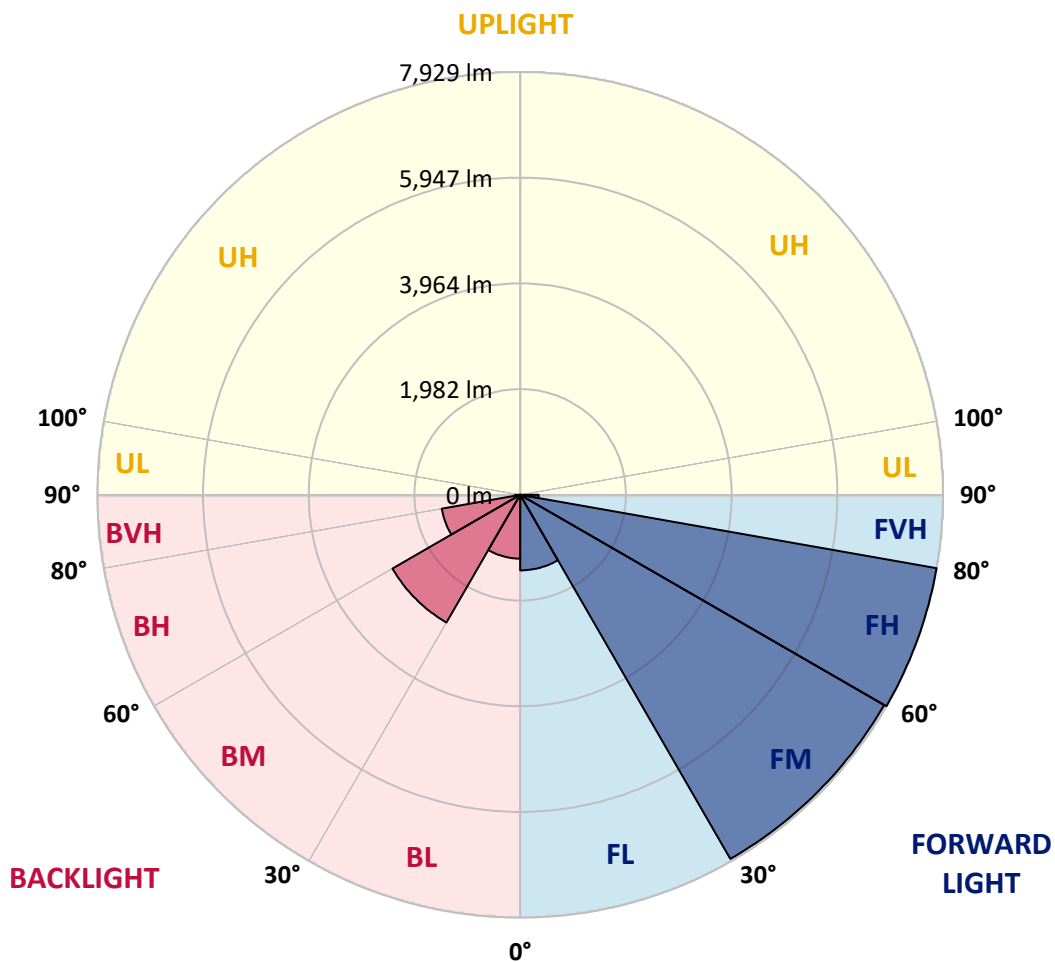
CATALOG NUMBER: VTS-F11-LED-E1-SL3-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|----------|
| | | | | B | U | G |
| FL | (0°-30°) | 1416.7 | 6.1 | | | |
| FM | (30°-60°) | 7883.2 | 34.1 | | | |
| FH | (60°-80°) | 7928.8 | 34.3 | | | G4/12000 |
| FVH | (80°-90°) | 345.9 | 1.5 | | | G3/500 |
| BL | (0°-30°) | 1196.1 | 5.2 | B3/2500 | | |
| BM | (30°-60°) | 2763.9 | 12.0 | B3/5000 | | |
| BH | (60°-80°) | 1492.3 | 6.5 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 94.6 | 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-G4

Type III Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|
| 0° | 2506.2 | 2506.2 | 2506.2 | 2506.2 | 2506.2 | 2506.2 | 2506.2 | 2506.2 | 2506.2 | 2506.2 | 2506.2 |
| 2.5° | 2604.3 | 2610.4 | 2611.9 | 2610.4 | 2611.9 | 2605.8 | 2604.3 | 2595.1 | 2599.7 | 2587.4 | 2584.3 |
| 5° | 2745.3 | 2749.9 | 2752.9 | 2740.7 | 2743.7 | 2737.6 | 2729.9 | 2720.8 | 2708.5 | 2691.6 | 2680.9 |
| 7.5° | 2883.2 | 2890.9 | 2889.4 | 2884.8 | 2874.0 | 2867.9 | 2852.6 | 2838.8 | 2817.3 | 2797.4 | 2783.6 |
| 10° | 3068.7 | 3067.2 | 3067.2 | 3041.1 | 3025.8 | 3012.0 | 2984.4 | 2962.9 | 2941.5 | 2912.4 | 2897.0 |
| 12.5° | 3283.3 | 3272.6 | 3268.0 | 3249.6 | 3217.4 | 3192.9 | 3153.0 | 3111.6 | 3073.3 | 3042.6 | 3018.1 |
| 15° | 3490.2 | 3490.2 | 3478.0 | 3448.8 | 3418.2 | 3386.0 | 3329.3 | 3269.5 | 3206.7 | 3157.6 | 3133.1 |
| 17.5° | 3678.8 | 3661.9 | 3651.2 | 3612.9 | 3580.7 | 3528.5 | 3465.7 | 3401.3 | 3323.1 | 3254.2 | 3206.7 |
| 20° | 3816.7 | 3802.9 | 3779.9 | 3732.4 | 3677.2 | 3615.9 | 3542.3 | 3467.2 | 3382.9 | 3307.8 | 3254.2 |
| 22.5° | 3896.4 | 3879.6 | 3844.3 | 3781.5 | 3706.4 | 3620.5 | 3534.7 | 3464.2 | 3387.5 | 3330.8 | 3286.4 |
| 25° | 3937.8 | 3920.9 | 3873.4 | 3790.7 | 3689.5 | 3576.1 | 3478.0 | 3409.0 | 3364.5 | 3350.7 | 3344.6 |
| 27.5° | 3936.3 | 3922.5 | 3871.9 | 3776.9 | 3646.6 | 3516.3 | 3410.5 | 3352.3 | 3347.7 | 3401.3 | 3441.2 |
| 30° | 3896.4 | 3887.2 | 3841.2 | 3746.2 | 3609.8 | 3473.4 | 3375.3 | 3344.6 | 3392.1 | 3505.6 | 3603.7 |
| 32.5° | 3856.6 | 3852.0 | 3819.8 | 3733.9 | 3617.5 | 3502.5 | 3435.0 | 3438.1 | 3536.2 | 3711.0 | 3868.8 |
| 35° | 3861.2 | 3867.3 | 3862.7 | 3816.7 | 3743.1 | 3683.4 | 3651.2 | 3718.6 | 3871.9 | 4083.4 | 4295.0 |
| 37.5° | 3901.0 | 3924.0 | 3953.1 | 3957.7 | 3959.3 | 3950.1 | 4017.5 | 4160.1 | 4383.9 | 4659.8 | 4990.9 |
| 40° | 3988.4 | 4014.5 | 4098.8 | 4172.3 | 4267.4 | 4380.8 | 4517.2 | 4714.9 | 4992.4 | 5332.7 | 5738.9 |
| 42.5° | 4259.7 | 4296.5 | 4400.7 | 4537.1 | 4711.9 | 4889.7 | 5093.6 | 5363.3 | 5703.6 | 6062.3 | 6488.4 |
| 45° | 4613.8 | 4690.4 | 4805.4 | 4957.1 | 5219.2 | 5469.1 | 5732.7 | 6034.7 | 6396.5 | 6845.6 | 7274.8 |
| 47.5° | 5055.2 | 5131.9 | 5299.0 | 5461.4 | 5771.1 | 6082.2 | 6370.4 | 6686.2 | 7078.6 | 7538.4 | 8013.6 |
| 50° | 5441.5 | 5528.9 | 5677.6 | 5896.8 | 6255.4 | 6637.1 | 6955.9 | 7297.7 | 7627.3 | 8111.7 | 8591.4 |
| 52.5° | 5745.0 | 5807.8 | 5950.4 | 6151.2 | 6551.3 | 6969.7 | 7372.9 | 7753.0 | 8143.9 | 8628.2 | 9072.8 |
| 55° | 5783.3 | 5841.6 | 5981.1 | 6211.0 | 6617.2 | 7081.6 | 7546.1 | 7996.7 | 8550.1 | 9078.9 | 9667.5 |
| 57.5° | 5617.8 | 5665.3 | 5806.3 | 6011.7 | 6407.2 | 6936.0 | 7523.1 | 8100.9 | 8809.1 | 9523.4 | 10242.3 |
| 60° | 5383.3 | 5430.8 | 5541.1 | 5705.1 | 6062.3 | 6632.5 | 7317.7 | 8108.6 | 9049.8 | 10081.3 | 11139.0 |
| 62.5° | 5125.7 | 5167.1 | 5256.0 | 5372.5 | 5686.8 | 6212.5 | 6997.3 | 8058.0 | 9246.0 | 10636.2 | 12267.1 |
| 65° | 4692.0 | 4791.6 | 4829.9 | 4949.5 | 5263.7 | 5760.3 | 6558.9 | 7716.2 | 9166.3 | 10883.0 | 12975.3 |
| 67° | 4212.2 | 4313.4 | 4333.3 | 4454.4 | 4705.8 | 5182.5 | 5994.9 | 7083.2 | 8534.7 | 10456.9 | 12819.0 |
| 67.5° | 4058.9 | 4144.7 | 4175.4 | 4296.5 | 4534.1 | 4983.2 | 5754.2 | 6854.8 | 8341.6 | 10223.9 | 12630.4 |
| 70° | 2984.4 | 3079.4 | 3113.2 | 3163.7 | 3333.9 | 3707.9 | 4218.3 | 5173.3 | 6650.9 | 8343.1 | 10654.6 |
| 72.5° | 1597.2 | 1673.8 | 1706.0 | 1781.1 | 1868.5 | 2072.4 | 2463.2 | 3148.4 | 4081.9 | 5582.5 | 7579.8 |
| 75° | 1080.6 | 1111.3 | 1134.3 | 1186.4 | 1276.8 | 1439.3 | 1611.0 | 1851.6 | 2415.7 | 3149.9 | 4313.4 |
| 77.5° | 616.2 | 630.0 | 633.1 | 642.3 | 714.3 | 869.1 | 1151.1 | 1558.9 | 1998.8 | 2282.4 | 2759.1 |
| 80° | 266.7 | 294.3 | 315.8 | 302.0 | 297.4 | 329.6 | 412.3 | 614.7 | 1204.8 | 1913.0 | 2270.1 |
| 82.5° | 144.1 | 156.3 | 174.7 | 176.3 | 185.5 | 196.2 | 213.1 | 252.9 | 355.6 | 717.4 | 1565.0 |
| 85° | 75.1 | 78.2 | 104.2 | 119.6 | 127.2 | 133.4 | 136.4 | 151.7 | 174.7 | 222.3 | 389.3 |
| 87.5° | 10.7 | 15.3 | 18.4 | 24.5 | 27.6 | 29.1 | 33.7 | 42.9 | 50.6 | 61.3 | 104.2 |
| 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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CATALOG NUMBER: VTS-F11-LED-E1-SL3-8030

CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 67.5° | 70° | 75° | 80° | 85° | 90° | 95° | 100° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|
| 0° | 2506.2 | 2506.2 | 2506.2 | 2506.2 | 2506.2 | 2506.2 | 2506.2 | 2506.2 | 2506.2 | 2506.2 | 2506.2 |
| 2.5° | 2570.5 | 2567.5 | 2558.3 | 2552.1 | 2546.0 | 2539.9 | 2532.2 | 2526.1 | 2515.4 | 2507.7 | 2498.5 |
| 5° | 2665.6 | 2647.2 | 2634.9 | 2618.1 | 2615.0 | 2595.1 | 2575.1 | 2565.9 | 2547.5 | 2532.2 | 2513.8 |
| 7.5° | 2762.1 | 2740.7 | 2720.8 | 2707.0 | 2699.3 | 2671.7 | 2651.8 | 2628.8 | 2607.3 | 2587.4 | 2565.9 |
| 10° | 2875.6 | 2854.1 | 2832.6 | 2823.5 | 2809.7 | 2783.6 | 2766.7 | 2737.6 | 2716.2 | 2691.6 | 2662.5 |
| 12.5° | 2993.6 | 2978.3 | 2962.9 | 2950.7 | 2944.5 | 2932.3 | 2907.8 | 2883.2 | 2854.1 | 2829.6 | 2795.9 |
| 15° | 3097.8 | 3087.1 | 3081.0 | 3077.9 | 3077.9 | 3070.2 | 3047.2 | 3024.3 | 2993.6 | 2966.0 | 2929.2 |
| 17.5° | 3171.4 | 3166.8 | 3171.4 | 3176.0 | 3182.1 | 3176.0 | 3171.4 | 3145.3 | 3125.4 | 3091.7 | 3054.9 |
| 20° | 3214.3 | 3223.5 | 3246.5 | 3261.8 | 3275.6 | 3286.4 | 3291.0 | 3269.5 | 3243.4 | 3218.9 | 3194.4 |
| 22.5° | 3260.3 | 3286.4 | 3326.2 | 3349.2 | 3372.2 | 3410.5 | 3419.7 | 3404.4 | 3384.5 | 3369.1 | 3343.1 |
| 25° | 3336.9 | 3375.3 | 3444.2 | 3481.0 | 3513.2 | 3569.9 | 3577.6 | 3580.7 | 3576.1 | 3563.8 | 3531.6 |
| 27.5° | 3456.5 | 3531.6 | 3623.6 | 3671.1 | 3706.4 | 3779.9 | 3809.1 | 3809.1 | 3796.8 | 3810.6 | 3810.6 |
| 30° | 3665.0 | 3764.6 | 3884.2 | 3911.8 | 3966.9 | 4031.3 | 4078.8 | 4085.0 | 4086.5 | 4115.6 | 4158.5 |
| 32.5° | 3985.3 | 4080.4 | 4213.7 | 4244.4 | 4291.9 | 4353.2 | 4406.9 | 4400.7 | 4414.5 | 4477.4 | 4534.1 |
| 35° | 4451.3 | 4547.9 | 4635.2 | 4676.6 | 4698.1 | 4753.3 | 4773.2 | 4806.9 | 4848.3 | 4926.5 | 4918.8 |
| 37.5° | 5141.1 | 5226.9 | 5239.2 | 5265.2 | 5239.2 | 5249.9 | 5265.2 | 5305.1 | 5415.4 | 5486.0 | 5372.5 |
| 40° | 5971.9 | 6114.4 | 6100.6 | 6070.0 | 6011.7 | 5933.5 | 5961.1 | 6022.4 | 6142.0 | 6080.7 | 5775.7 |
| 42.5° | 6755.1 | 6902.3 | 6874.7 | 6839.4 | 6710.7 | 6681.6 | 6678.5 | 6729.1 | 6793.5 | 6618.7 | 6091.4 |
| 45° | 7526.1 | 7676.4 | 7628.8 | 7608.9 | 7523.1 | 7460.2 | 7512.3 | 7515.4 | 7498.5 | 7124.5 | 6367.3 |
| 47.5° | 8321.7 | 8459.6 | 8429.0 | 8445.8 | 8356.9 | 8315.5 | 8320.1 | 8298.7 | 8140.8 | 7553.7 | 6581.9 |
| 50° | 8963.9 | 9149.4 | 9167.8 | 9129.5 | 9081.9 | 9019.1 | 9180.0 | 9121.8 | 8770.8 | 7970.7 | 6788.9 |
| 52.5° | 9463.6 | 9713.5 | 9808.5 | 9784.0 | 9745.7 | 9753.3 | 10055.3 | 10121.2 | 9540.3 | 8496.4 | 7017.2 |
| 55° | 10055.3 | 10449.2 | 10604.0 | 10696.0 | 10656.2 | 10809.4 | 11500.7 | 11534.5 | 10610.2 | 9183.1 | 7314.6 |
| 57.5° | 10909.1 | 11473.1 | 11962.1 | 12092.4 | 12218.1 | 12716.3 | 13838.3 | 13496.5 | 11998.9 | 10222.4 | 7691.7 |
| 60° | 12207.4 | 13442.8 | 14236.8 | 14653.7 | 14948.0 | 15643.9 | 16710.8 | 15844.7 | 13729.5 | 11459.3 | 8165.3 |
| 62.5° | 14025.3 | 15830.9 | 17158.4 | 17576.8 | 17697.9 | 18098.0 | 18870.5 | 17213.5 | 14672.1 | 12014.2 | 8206.7 |
| 65° | 15378.8 | 17544.6 | 19134.2 | 19348.8 | 19204.7 | 19212.3 | 19414.7 | 17141.5 | 14321.1 | 11529.9 | 7495.5 |
| 67° | 15289.9 | 17714.8 | 19342.6 | 19624.7 | 19425.4 | 19163.3 | 18847.5 | 16165.1 | 13193.0 | 10515.1 | 6563.5 |
| 67.5° | 15153.4 | 17550.8 | 19252.2 | 19549.6 | 19367.2 | 19068.3 | 18606.9 | 15786.5 | 12842.0 | 10199.4 | 6373.5 |
| 70° | 13099.5 | 15479.9 | 17771.5 | 18190.0 | 18266.6 | 17993.8 | 16698.5 | 13311.0 | 10426.2 | 8297.1 | 4949.5 |
| 72.5° | 10196.3 | 12316.2 | 14583.2 | 14946.5 | 15240.8 | 14454.5 | 12153.7 | 9193.8 | 7599.7 | 5979.5 | 3583.7 |
| 75° | 6732.1 | 8888.8 | 10032.3 | 10085.9 | 9710.4 | 8254.2 | 5938.1 | 4604.6 | 4238.2 | 3514.8 | 2218.0 |
| 77.5° | 3602.1 | 5226.9 | 5259.1 | 4869.8 | 4692.0 | 3497.9 | 1419.4 | 783.3 | 872.2 | 990.2 | 882.9 |
| 80° | 2687.0 | 3329.3 | 3858.1 | 4147.8 | 4233.6 | 2999.7 | 734.2 | 415.4 | 363.3 | 331.1 | 326.5 |
| 82.5° | 2423.4 | 3215.9 | 3605.2 | 3763.1 | 3723.2 | 2467.8 | 412.3 | 279.0 | 231.5 | 251.4 | 286.6 |
| 85° | 950.3 | 1716.8 | 2257.8 | 2185.8 | 1836.3 | 919.7 | 225.3 | 150.2 | 150.2 | 217.7 | 282.0 |
| 87.5° | 194.7 | 352.5 | 478.2 | 456.8 | 410.8 | 177.8 | 110.4 | 90.4 | 92.0 | 176.3 | 266.7 |
| 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):

| | 105° | 110° | 115° | 120° | 125° | 130° | 135° | 140° | 145° | 150° | 155° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 2506.2 | 2506.2 | 2506.2 | 2506.2 | 2506.2 | 2506.2 | 2506.2 | 2506.2 | 2506.2 | 2506.2 | 2506.2 |
| 2.5° | 2489.3 | 2480.1 | 2474.0 | 2467.8 | 2461.7 | 2458.6 | 2454.0 | 2454.0 | 2444.8 | 2441.8 | 2438.7 |
| 5° | 2500.0 | 2484.7 | 2474.0 | 2460.2 | 2449.4 | 2440.2 | 2428.0 | 2424.9 | 2414.2 | 2406.5 | 2403.5 |
| 7.5° | 2546.0 | 2523.0 | 2500.0 | 2483.2 | 2467.8 | 2447.9 | 2434.1 | 2421.9 | 2411.1 | 2403.5 | 2394.3 |
| 10° | 2633.4 | 2608.9 | 2576.7 | 2546.0 | 2526.1 | 2495.4 | 2474.0 | 2452.5 | 2440.2 | 2431.0 | 2418.8 |
| 12.5° | 2762.1 | 2726.9 | 2688.6 | 2651.8 | 2618.1 | 2578.2 | 2556.7 | 2530.7 | 2515.4 | 2507.7 | 2498.5 |
| 15° | 2894.0 | 2855.6 | 2808.1 | 2772.9 | 2734.5 | 2703.9 | 2684.0 | 2661.0 | 2648.7 | 2639.5 | 2633.4 |
| 17.5° | 3028.8 | 2984.4 | 2950.7 | 2915.4 | 2897.0 | 2874.0 | 2848.0 | 2818.9 | 2783.6 | 2762.1 | 2733.0 |
| 20° | 3166.8 | 3133.1 | 3113.2 | 3093.2 | 3071.8 | 3039.6 | 2987.5 | 2927.7 | 2861.8 | 2798.9 | 2739.1 |
| 22.5° | 3327.7 | 3307.8 | 3304.8 | 3286.4 | 3241.9 | 3165.3 | 3068.7 | 2956.8 | 2844.9 | 2740.7 | 2659.4 |
| 25° | 3554.6 | 3554.6 | 3539.3 | 3464.2 | 3359.9 | 3222.0 | 3059.5 | 2898.6 | 2749.9 | 2607.3 | 2500.0 |
| 27.5° | 3839.7 | 3829.0 | 3753.9 | 3599.1 | 3412.1 | 3197.5 | 2979.8 | 2775.9 | 2585.9 | 2429.5 | 2291.6 |
| 30° | 4153.9 | 4078.8 | 3917.9 | 3674.2 | 3393.7 | 3117.8 | 2851.0 | 2615.0 | 2391.2 | 2199.6 | 2037.1 |
| 32.5° | 4480.4 | 4298.0 | 4008.3 | 3674.2 | 3329.3 | 2998.2 | 2690.1 | 2400.4 | 2144.4 | 1929.8 | 1736.7 |
| 35° | 4776.3 | 4443.6 | 4029.8 | 3614.4 | 3203.6 | 2821.9 | 2464.8 | 2136.7 | 1830.2 | 1598.7 | 1387.2 |
| 37.5° | 5044.5 | 4540.2 | 4006.8 | 3497.9 | 3021.2 | 2573.6 | 2155.1 | 1793.4 | 1447.0 | 1223.2 | 1042.3 |
| 40° | 5219.2 | 4560.1 | 3911.8 | 3315.5 | 2760.6 | 2237.9 | 1775.0 | 1370.3 | 1096.0 | 892.1 | 771.0 |
| 42.5° | 5328.1 | 4521.8 | 3758.5 | 3065.6 | 2409.6 | 1816.4 | 1332.0 | 982.5 | 778.7 | 665.2 | 619.3 |
| 45° | 5389.4 | 4422.2 | 3531.6 | 2723.8 | 1985.0 | 1381.1 | 945.7 | 709.7 | 599.3 | 559.5 | 544.2 |
| 47.5° | 5386.3 | 4261.2 | 3248.0 | 2328.4 | 1516.0 | 962.6 | 669.8 | 553.3 | 522.7 | 510.4 | 507.4 |
| 50° | 5354.1 | 4063.5 | 2915.4 | 1899.2 | 1094.4 | 671.4 | 530.4 | 496.6 | 489.0 | 481.3 | 478.2 |
| 52.5° | 5309.7 | 3818.3 | 2547.5 | 1480.7 | 777.1 | 536.5 | 481.3 | 472.1 | 466.0 | 458.3 | 455.2 |
| 55° | 5226.9 | 3516.3 | 2149.0 | 1114.4 | 608.5 | 484.4 | 464.4 | 461.4 | 453.7 | 443.0 | 436.9 |
| 57.5° | 5125.7 | 3209.7 | 1767.3 | 870.6 | 538.0 | 472.1 | 461.4 | 456.8 | 446.1 | 433.8 | 421.5 |
| 60° | 5089.0 | 2956.8 | 1468.4 | 734.2 | 521.2 | 476.7 | 469.0 | 462.9 | 447.6 | 429.2 | 415.4 |
| 62.5° | 4859.0 | 2671.7 | 1253.8 | 680.6 | 530.4 | 496.6 | 493.6 | 484.4 | 461.4 | 439.9 | 418.5 |
| 65° | 4264.3 | 2259.4 | 1062.2 | 643.8 | 548.7 | 530.4 | 533.4 | 519.6 | 496.6 | 467.5 | 429.2 |
| 67° | 3606.7 | 1842.4 | 884.4 | 608.5 | 562.5 | 565.6 | 576.3 | 565.6 | 536.5 | 495.1 | 443.0 |
| 67.5° | 3432.0 | 1736.7 | 840.0 | 597.8 | 565.6 | 574.8 | 587.1 | 579.4 | 550.3 | 502.8 | 449.1 |
| 70° | 2550.6 | 1223.2 | 626.9 | 541.1 | 565.6 | 602.4 | 630.0 | 637.7 | 605.5 | 539.6 | 461.4 |
| 72.5° | 1796.5 | 789.4 | 481.3 | 469.0 | 513.5 | 562.5 | 614.7 | 640.7 | 603.9 | 531.9 | 444.5 |
| 75° | 1079.1 | 493.6 | 390.9 | 398.5 | 432.3 | 482.8 | 524.2 | 535.0 | 489.0 | 443.0 | 384.7 |
| 77.5° | 499.7 | 328.0 | 306.6 | 317.3 | 349.5 | 372.5 | 372.5 | 351.0 | 315.8 | 288.2 | 275.9 |
| 80° | 294.3 | 268.2 | 266.7 | 286.6 | 308.1 | 291.2 | 265.2 | 236.1 | 217.7 | 208.5 | 203.9 |
| 82.5° | 275.9 | 286.6 | 305.0 | 309.6 | 292.8 | 251.4 | 219.2 | 190.1 | 180.9 | 176.3 | 171.7 |
| 85° | 325.0 | 347.9 | 317.3 | 292.8 | 259.0 | 211.5 | 171.7 | 147.2 | 142.6 | 138.0 | 131.8 |
| 87.5° | 300.4 | 286.6 | 249.8 | 214.6 | 177.8 | 128.8 | 93.5 | 84.3 | 90.4 | 88.9 | 85.8 |
| 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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