

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: METALUX

Report Number: P601050

Luminaire Tested: UHBS-15-MV-L840-U-CDL-277V

Issue Date: 8/28/2023

Test Information

Test Method: LM-79-2019
Report Number: P601050
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ()
Test Lab: INNOVATION CENTER
Issue Date: 8/28/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: UHBS-15-MV-L840-U-CDL-277V
Description: UHB Round Select with Clear Reflector with Lens Cover at 277V 15000 LUMEN SETTING AND 4000K
Light Source: -
Ballast/Driver: Electrical Driver

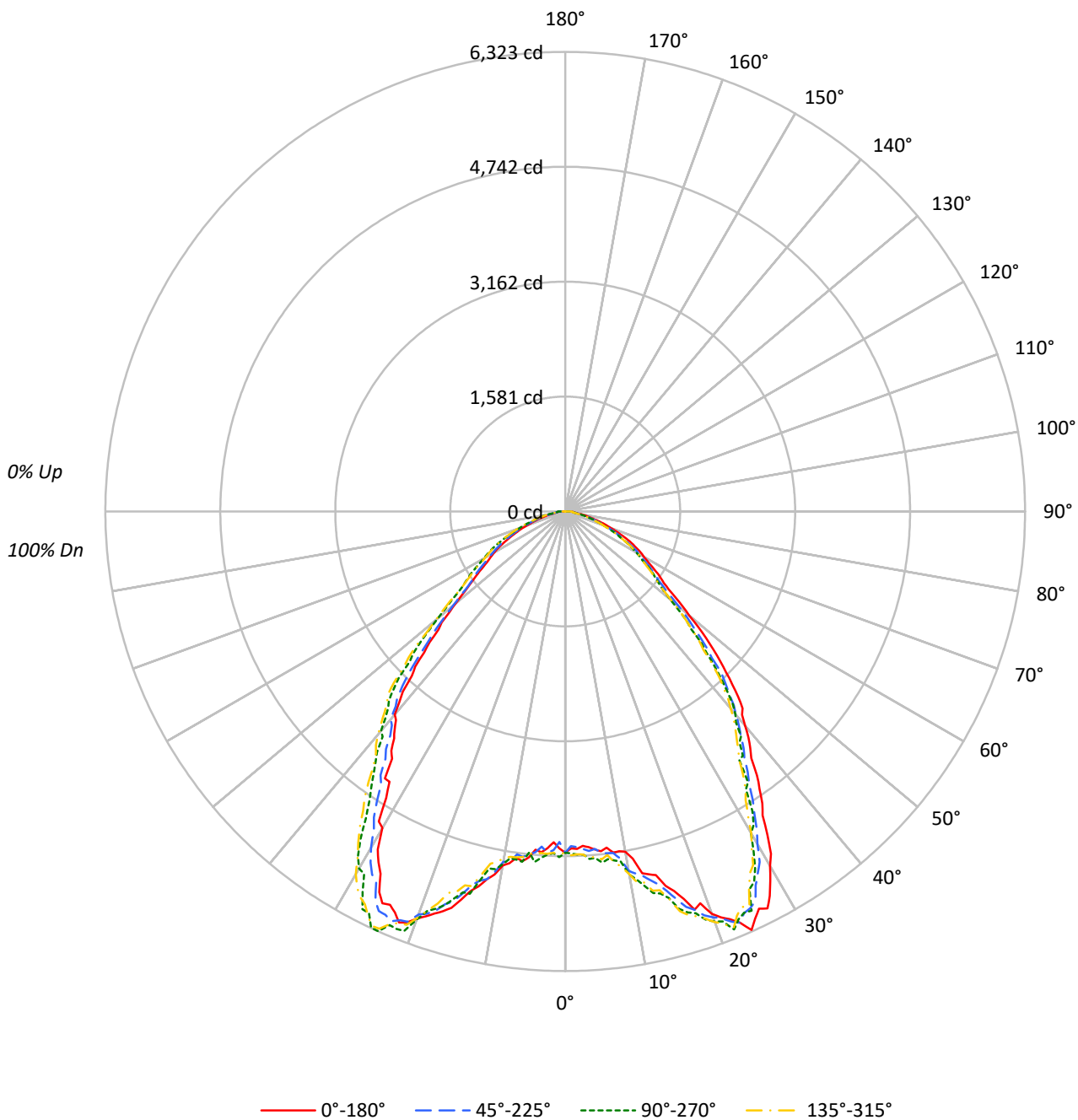
Summary

Lumens per Lamp: 12623 (1 lamp)
Luminaire Lumens: 12623.0 lumens
Efficiency: 100.0%
Efficacy: 125.5 lumens/watt
Spacing Criteria (0/90/45): 1.42 / 1.43 / 1.37
Luminous Opening: Circular (Dia: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 100.6
Input Voltage (V): 277
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: 24 FT

TEST NUMBER: P601050
CATALOG NUMBER: UHBS-15-MV-L840-U-CDL-277V

Luminous Intensity Polar Plot





TEST NUMBER: P601050
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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RF | 20 | | | | 20 | | | | 20 | | | | 20 | | | | 20 | |
| RC | 80 | | | | 70 | | | | 50 | | | | 30 | | | | 10 | 0 |
| RW | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 |
| RCR | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1 | 111 | 107 | 103 | 100 | 108 | 104 | 101 | 98 | 100 | 97 | 95 | 96 | 94 | 92 | 93 | 91 | 89 | 87 |
| 2 | 102 | 95 | 89 | 84 | 100 | 93 | 88 | 83 | 90 | 85 | 81 | 87 | 83 | 80 | 84 | 81 | 78 | 76 |
| 3 | 94 | 85 | 78 | 72 | 92 | 84 | 77 | 72 | 81 | 75 | 70 | 78 | 73 | 69 | 76 | 72 | 68 | 66 |
| 4 | 87 | 77 | 69 | 63 | 85 | 75 | 68 | 62 | 73 | 67 | 62 | 71 | 65 | 61 | 69 | 64 | 60 | 58 |
| 5 | 81 | 69 | 61 | 55 | 79 | 68 | 61 | 55 | 66 | 60 | 54 | 64 | 58 | 54 | 63 | 57 | 53 | 51 |
| 6 | 75 | 63 | 55 | 49 | 73 | 62 | 54 | 49 | 60 | 54 | 48 | 59 | 53 | 48 | 57 | 52 | 48 | 46 |
| 7 | 70 | 58 | 50 | 44 | 68 | 57 | 49 | 44 | 55 | 48 | 43 | 54 | 48 | 43 | 53 | 47 | 43 | 41 |
| 8 | 65 | 53 | 45 | 40 | 64 | 52 | 45 | 39 | 51 | 44 | 39 | 50 | 44 | 39 | 49 | 43 | 39 | 37 |
| 9 | 61 | 49 | 41 | 36 | 60 | 48 | 41 | 36 | 47 | 40 | 36 | 46 | 40 | 36 | 45 | 39 | 35 | 34 |
| 10 | 58 | 45 | 38 | 33 | 56 | 45 | 38 | 33 | 44 | 37 | 33 | 43 | 37 | 32 | 42 | 36 | 32 | 31 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° | 270° |
|-----|-------|-------|-------|-------|
| 0° | 64347 | 64347 | 64347 | 64347 |
| 5° | 64232 | 65872 | 64262 | 66604 |
| 10° | 66132 | 70562 | 68848 | 68571 |
| 15° | 75660 | 78089 | 78434 | 76968 |
| 20° | 85916 | 87567 | 86927 | 87178 |
| 25° | 93451 | 91640 | 89952 | 95559 |
| 30° | 89166 | 80903 | 79539 | 89734 |
| 35° | 77965 | 69838 | 69438 | 77870 |
| 40° | 68867 | 65143 | 65253 | 70478 |
| 45° | 60700 | 53215 | 53176 | 62596 |
| 50° | 47500 | 40269 | 41809 | 48681 |
| 55° | 38419 | 35012 | 34321 | 39717 |
| 60° | 34361 | 31015 | 30798 | 35510 |
| 65° | 31822 | 26955 | 26845 | 31920 |
| 70° | 27200 | 22680 | 22255 | 26631 |
| 75° | 22176 | 18554 | 18020 | 22510 |
| 80° | 17979 | 13599 | 13749 | 18326 |
| 85° | 18429 | 16527 | 16967 | 18917 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 270°
 Vertical Angle: 89°
 Luminance: 74288 cd/sqm



TEST NUMBER: P601050
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ZONAL LUMENS:

| Zone | Lumens | % Fixture | % Lamp |
|-----------|---------|-----------|--------|
| 0°-10° | 456.8 | 3.6 | 3.6 |
| 10°-20° | 1560.4 | 12.4 | 12.4 |
| 20°-30° | 2732.2 | 21.6 | 21.6 |
| 30°-40° | 2793.2 | 22.1 | 22.1 |
| 40°-50° | 2258.8 | 17.9 | 17.9 |
| 50°-60° | 1388.0 | 11.0 | 11.0 |
| 60°-70° | 890.0 | 7.1 | 7.1 |
| 70°-80° | 410.3 | 3.3 | 3.3 |
| 80°-90° | 133.2 | 1.1 | 1.1 |
| 90°-100° | 0.0 | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 | 0.0 |
| 0°-30° | 4749.4 | 37.6 | 37.6 |
| 0°-40° | 7542.7 | 59.8 | 59.8 |
| 0°-60° | 11189.5 | 88.6 | 88.6 |
| 0°-90° | 12623.0 | 100.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 | 0.0 |
| 0°-180° | 12623.0 | 100.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 90° | 180° | 270° | 360° | Flux |
|-----|------|------|------|------|------|------|
| 0° | 4695 | 4695 | 4695 | 4695 | 4695 | |
| 5° | 4669 | 4788 | 4671 | 4841 | 4669 | 448 |
| 15° | 5332 | 5504 | 5528 | 5425 | 5332 | 1529 |
| 25° | 6180 | 6060 | 5948 | 6319 | 6180 | 2795 |
| 35° | 4660 | 4174 | 4150 | 4654 | 4660 | 2919 |
| 45° | 3132 | 2746 | 2744 | 3230 | 3132 | 2390 |
| 55° | 1608 | 1465 | 1436 | 1662 | 1608 | 1473 |
| 65° | 981 | 831 | 828 | 984 | 981 | 963 |
| 75° | 419 | 350 | 340 | 425 | 419 | 457 |
| 85° | 117 | 105 | 108 | 120 | 117 | 143 |
| 90° | 89 | 88 | 90 | 91 | 89 | |



TEST NUMBER: P601050
 CATALOG NUMBER: UHBS-15-MV-L840-U-CDL-277V

CANDELA DISTRIBUTION (FULL):

| | 0° | 30° | 60° | 90° | 120° | 150° | 180° | 210° | 240° | 270° | 300° |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 4695.1 | 4695.1 | 4695.1 | 4695.1 | 4695.1 | 4695.1 | 4695.1 | 4695.1 | 4695.1 | 4695.1 | 4695.1 |
| 1° | 4636.1 | 4608.9 | 4600.3 | 4705.3 | 4676.8 | 4783.2 | 4634.8 | 4512.6 | 4584.2 | 4757.6 | 4728.6 |
| 2° | 4646.7 | 4610.9 | 4632.4 | 4722.0 | 4753.5 | 4686.8 | 4552.1 | 4677.2 | 4646.8 | 4703.7 | 4717.3 |
| 3° | 4608.0 | 4691.1 | 4606.1 | 4725.4 | 4747.5 | 4703.3 | 4638.6 | 4658.2 | 4746.7 | 4731.0 | 4703.5 |
| 4° | 4629.7 | 4675.3 | 4692.2 | 4791.6 | 4771.5 | 4806.6 | 4700.3 | 4647.7 | 4600.2 | 4778.3 | 4638.3 |
| 5° | 4668.9 | 4638.0 | 4684.8 | 4788.1 | 4798.0 | 4721.3 | 4671.1 | 4707.7 | 4704.0 | 4841.3 | 4718.1 |
| 6° | 4699.6 | 4717.7 | 4722.3 | 4856.7 | 4816.6 | 4808.4 | 4786.0 | 4767.1 | 4725.2 | 4714.8 | 4746.3 |
| 7° | 4660.5 | 4741.3 | 4732.2 | 4819.4 | 4748.0 | 4778.5 | 4849.0 | 4774.8 | 4797.8 | 4855.8 | 4819.8 |
| 8° | 4739.9 | 4757.8 | 4732.7 | 4847.2 | 4847.9 | 4904.8 | 4811.7 | 4801.5 | 4721.8 | 4837.0 | 4807.5 |
| 9° | 4734.0 | 4796.3 | 4869.4 | 4874.6 | 4953.0 | 4941.6 | 4899.9 | 4865.9 | 4899.8 | 4829.4 | 4790.8 |
| 10° | 4752.1 | 5048.6 | 4989.0 | 5070.4 | 5074.4 | 5057.9 | 4947.2 | 4876.9 | 4909.8 | 4927.3 | 4810.8 |
| 11° | 4865.0 | 5021.5 | 5129.6 | 5160.4 | 5192.3 | 5209.4 | 5088.7 | 5079.6 | 5010.4 | 5014.8 | 4848.6 |
| 12° | 5088.7 | 5108.4 | 5144.3 | 5274.2 | 5248.5 | 5188.9 | 5171.5 | 5212.8 | 5134.6 | 5021.1 | 4988.2 |
| 13° | 5123.1 | 5146.8 | 5266.1 | 5388.2 | 5354.5 | 5352.6 | 5292.2 | 5228.2 | 5198.4 | 5204.9 | 5204.4 |
| 14° | 5156.8 | 5219.7 | 5355.7 | 5419.1 | 5323.3 | 5420.0 | 5383.9 | 5354.1 | 5237.4 | 5420.6 | 5345.5 |
| 15° | 5332.5 | 5409.0 | 5405.0 | 5503.7 | 5513.5 | 5524.9 | 5528.0 | 5514.8 | 5368.9 | 5424.7 | 5329.8 |
| 16° | 5430.8 | 5564.0 | 5524.4 | 5688.3 | 5715.7 | 5730.2 | 5673.0 | 5619.1 | 5530.6 | 5538.3 | 5469.6 |
| 17° | 5575.9 | 5714.8 | 5665.9 | 5769.1 | 5827.4 | 5788.8 | 5751.6 | 5684.4 | 5620.1 | 5659.1 | 5585.8 |
| 18° | 5760.4 | 5755.5 | 5773.7 | 5811.5 | 5880.0 | 5833.0 | 5817.7 | 5825.0 | 5733.8 | 5747.3 | 5668.4 |
| 19° | 5702.0 | 5862.7 | 5893.5 | 5941.6 | 5921.6 | 5932.3 | 5890.5 | 5864.9 | 5842.1 | 5810.1 | 5839.2 |
| 20° | 5890.9 | 5945.7 | 5939.0 | 6004.1 | 6014.7 | 6005.2 | 5960.2 | 5877.6 | 5925.1 | 5977.4 | 6010.4 |
| 21° | 5982.5 | 6012.1 | 5974.7 | 6042.8 | 6082.0 | 6073.3 | 6054.8 | 6047.1 | 6048.8 | 6182.8 | 6096.2 |
| 22° | 6051.3 | 6137.9 | 6031.8 | 6201.7 | 6178.1 | 6188.7 | 6099.3 | 6091.2 | 6041.7 | 6194.6 | 6042.6 |
| 23° | 6143.1 | 6237.2 | 6058.1 | 6096.9 | 6074.2 | 6013.2 | 5995.9 | 6094.2 | 6152.6 | 6180.6 | 6180.3 |
| 24° | 6303.2 | 6136.3 | 5957.7 | 6044.7 | 5942.6 | 5967.5 | 5925.4 | 6031.2 | 6120.9 | 6322.6 | 6338.9 |
| 25° | 6179.9 | 6074.5 | 5970.3 | 6060.1 | 5980.3 | 6020.2 | 5948.5 | 6014.9 | 6116.8 | 6319.3 | 6291.0 |
| 26° | 6079.6 | 6085.1 | 5838.7 | 5781.6 | 5780.5 | 5743.7 | 5828.4 | 5896.2 | 6007.9 | 6151.1 | 6132.8 |
| 27° | 6129.2 | 5947.7 | 5595.7 | 5720.0 | 5620.6 | 5563.8 | 5594.7 | 5620.3 | 5826.4 | 6140.7 | 6083.7 |
| 28° | 5990.6 | 5710.3 | 5573.2 | 5562.5 | 5547.4 | 5464.1 | 5467.8 | 5568.5 | 5749.7 | 5931.4 | 5991.7 |
| 29° | 5814.2 | 5630.1 | 5400.5 | 5342.8 | 5268.3 | 5303.0 | 5316.2 | 5402.7 | 5640.2 | 5700.2 | 5877.7 |
| 30° | 5634.4 | 5354.0 | 5222.3 | 5112.3 | 5100.6 | 5131.6 | 5026.1 | 5255.6 | 5416.7 | 5670.3 | 5719.0 |
| 31° | 5493.8 | 5242.1 | 4989.3 | 5032.5 | 4890.3 | 4861.9 | 4976.4 | 4937.6 | 5277.7 | 5532.9 | 5565.3 |
| 32° | 5250.6 | 5036.8 | 4773.8 | 4856.4 | 4691.5 | 4676.0 | 4646.8 | 4776.6 | 5153.1 | 5311.8 | 5294.7 |
| 33° | 4983.3 | 4823.9 | 4646.1 | 4561.8 | 4543.8 | 4555.2 | 4432.9 | 4605.2 | 4897.4 | 5031.8 | 5227.9 |
| 34° | 4848.4 | 4594.2 | 4458.6 | 4495.7 | 4381.8 | 4360.2 | 4431.0 | 4445.1 | 4613.4 | 4814.9 | 4999.5 |
| 35° | 4660.0 | 4449.9 | 4305.2 | 4174.2 | 4166.3 | 4178.4 | 4150.3 | 4283.5 | 4574.3 | 4654.3 | 4801.8 |
| 36° | 4487.7 | 4266.1 | 4120.5 | 4157.5 | 4028.0 | 4068.0 | 4070.3 | 4083.9 | 4330.3 | 4488.2 | 4591.0 |
| 37° | 4249.0 | 4134.6 | 4022.3 | 3980.7 | 3906.0 | 3924.3 | 3910.0 | 3974.2 | 4212.1 | 4335.6 | 4419.0 |
| 38° | 4133.3 | 3961.8 | 3878.5 | 3926.4 | 3808.7 | 3797.1 | 3811.4 | 3816.8 | 3998.0 | 4205.1 | 4229.5 |
| 39° | 4003.8 | 3893.5 | 3704.8 | 3730.5 | 3707.1 | 3659.5 | 3695.4 | 3686.7 | 3888.0 | 3986.7 | 4156.1 |
| 40° | 3849.3 | 3692.5 | 3616.9 | 3641.2 | 3543.4 | 3539.6 | 3647.3 | 3607.3 | 3856.3 | 3939.4 | 4027.4 |
| 41° | 3706.3 | 3612.9 | 3453.1 | 3513.5 | 3393.9 | 3439.4 | 3479.0 | 3464.8 | 3639.1 | 3768.8 | 3875.3 |
| 42° | 3645.1 | 3426.5 | 3293.4 | 3326.7 | 3228.7 | 3262.2 | 3333.0 | 3315.8 | 3585.3 | 3636.6 | 3708.0 |
| 43° | 3488.6 | 3325.7 | 3134.2 | 3140.0 | 3104.7 | 3085.3 | 3091.6 | 3166.8 | 3385.5 | 3554.0 | 3625.1 |
| 44° | 3310.1 | 3151.6 | 3022.6 | 2953.0 | 2868.1 | 2923.7 | 2966.8 | 3009.6 | 3179.3 | 3397.9 | 3563.0 |



TEST NUMBER: P601050
 CATALOG NUMBER: UHBS-15-MV-L840-U-CDL-277V

CANDELA DISTRIBUTION (continued):

| | 0° | 30° | 60° | 90° | 120° | 150° | 180° | 210° | 240° | 270° | 300° |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 45° | 3131.8 | 2921.3 | 2779.1 | 2745.6 | 2665.4 | 2709.0 | 2743.6 | 2755.5 | 3032.2 | 3229.6 | 3328.1 |
| 46° | 2964.6 | 2794.7 | 2623.1 | 2599.2 | 2551.3 | 2557.9 | 2591.0 | 2631.2 | 2740.0 | 2969.3 | 3094.3 |
| 47° | 2784.3 | 2584.3 | 2492.9 | 2355.6 | 2369.0 | 2401.8 | 2379.2 | 2433.2 | 2586.5 | 2854.5 | 2960.9 |
| 48° | 2607.3 | 2405.8 | 2326.6 | 2248.2 | 2205.1 | 2261.1 | 2285.2 | 2281.3 | 2428.1 | 2666.9 | 2771.7 |
| 49° | 2422.6 | 2273.9 | 2156.7 | 2055.9 | 2050.8 | 2117.8 | 2105.9 | 2119.3 | 2214.0 | 2468.9 | 2498.7 |
| 50° | 2227.8 | 2136.3 | 1971.8 | 1888.7 | 1870.9 | 1953.2 | 1960.9 | 1942.5 | 2068.0 | 2283.2 | 2315.2 |
| 51° | 2078.9 | 1977.1 | 1807.7 | 1755.9 | 1733.0 | 1802.7 | 1829.9 | 1822.4 | 1922.6 | 2115.6 | 2146.2 |
| 52° | 1933.0 | 1832.0 | 1681.9 | 1656.7 | 1613.3 | 1694.4 | 1705.1 | 1679.4 | 1782.8 | 1976.5 | 2015.8 |
| 53° | 1779.9 | 1705.0 | 1592.1 | 1580.7 | 1543.2 | 1592.2 | 1605.7 | 1584.5 | 1677.3 | 1831.0 | 1821.9 |
| 54° | 1677.9 | 1615.4 | 1508.0 | 1517.3 | 1477.6 | 1531.8 | 1519.6 | 1508.0 | 1603.1 | 1729.8 | 1710.5 |
| 55° | 1607.9 | 1539.0 | 1455.9 | 1465.3 | 1412.1 | 1455.4 | 1436.4 | 1446.4 | 1547.3 | 1662.2 | 1614.3 |
| 56° | 1541.5 | 1470.3 | 1390.4 | 1388.9 | 1333.1 | 1381.1 | 1353.3 | 1373.3 | 1473.9 | 1591.0 | 1530.4 |
| 57° | 1457.9 | 1401.6 | 1323.1 | 1302.8 | 1271.0 | 1310.5 | 1282.0 | 1299.4 | 1400.4 | 1515.8 | 1460.4 |
| 58° | 1382.3 | 1315.1 | 1256.7 | 1234.4 | 1221.7 | 1260.8 | 1225.3 | 1232.5 | 1319.2 | 1437.3 | 1384.5 |
| 59° | 1312.9 | 1256.9 | 1210.2 | 1186.1 | 1175.1 | 1217.8 | 1177.8 | 1179.1 | 1237.1 | 1358.9 | 1294.1 |
| 60° | 1253.6 | 1205.3 | 1159.5 | 1131.5 | 1123.8 | 1156.7 | 1123.6 | 1138.5 | 1185.5 | 1295.5 | 1243.9 |
| 61° | 1205.4 | 1145.8 | 1104.5 | 1069.8 | 1067.9 | 1092.2 | 1071.2 | 1084.2 | 1138.2 | 1233.9 | 1182.0 |
| 62° | 1152.1 | 1082.2 | 1049.6 | 1008.5 | 1008.0 | 1028.7 | 1010.0 | 1030.2 | 1087.0 | 1182.6 | 1132.0 |
| 63° | 1093.1 | 1011.1 | 982.2 | 952.1 | 938.9 | 963.8 | 947.8 | 976.1 | 1022.8 | 1118.7 | 1079.0 |
| 64° | 1039.6 | 941.9 | 919.5 | 893.0 | 880.6 | 903.6 | 885.4 | 913.2 | 963.3 | 1053.5 | 1029.1 |
| 65° | 981.3 | 883.3 | 860.7 | 831.2 | 827.1 | 838.4 | 827.8 | 851.5 | 907.7 | 984.3 | 981.3 |
| 66° | 915.2 | 822.0 | 803.1 | 776.4 | 768.0 | 780.5 | 770.9 | 797.1 | 854.3 | 925.3 | 922.0 |
| 67° | 860.5 | 763.6 | 742.2 | 716.9 | 716.0 | 723.8 | 719.1 | 751.3 | 797.2 | 859.5 | 860.5 |
| 68° | 792.2 | 705.5 | 693.3 | 665.2 | 668.0 | 667.4 | 667.8 | 697.4 | 746.3 | 782.6 | 793.9 |
| 69° | 734.1 | 650.3 | 636.8 | 609.4 | 608.8 | 608.4 | 610.3 | 645.1 | 689.8 | 717.6 | 736.9 |
| 70° | 678.8 | 593.0 | 584.9 | 566.0 | 559.5 | 555.1 | 555.4 | 594.7 | 631.5 | 664.6 | 683.2 |
| 71° | 625.5 | 543.5 | 538.8 | 526.5 | 513.4 | 502.6 | 506.5 | 549.9 | 577.0 | 610.9 | 633.6 |
| 72° | 571.0 | 495.0 | 492.6 | 476.8 | 459.9 | 451.3 | 459.4 | 504.0 | 527.6 | 563.3 | 578.1 |
| 73° | 517.7 | 450.3 | 447.1 | 429.6 | 416.2 | 406.9 | 420.3 | 454.7 | 484.4 | 515.2 | 530.1 |
| 74° | 464.6 | 407.4 | 404.6 | 386.7 | 374.7 | 367.1 | 377.1 | 406.6 | 436.6 | 468.4 | 483.7 |
| 75° | 418.8 | 368.4 | 364.8 | 350.4 | 336.8 | 329.0 | 340.3 | 363.4 | 391.8 | 425.1 | 437.0 |
| 76° | 376.7 | 333.4 | 327.3 | 315.0 | 298.8 | 290.9 | 304.7 | 327.9 | 353.0 | 387.0 | 400.4 |
| 77° | 341.8 | 302.3 | 290.3 | 279.6 | 261.8 | 252.8 | 267.5 | 292.1 | 313.9 | 346.3 | 351.9 |
| 78° | 302.8 | 264.8 | 253.2 | 239.7 | 228.0 | 219.0 | 233.2 | 256.4 | 279.9 | 311.7 | 310.9 |
| 79° | 263.9 | 231.3 | 220.7 | 203.9 | 193.8 | 188.2 | 200.6 | 221.5 | 245.6 | 273.6 | 269.9 |
| 80° | 227.8 | 198.6 | 190.5 | 172.3 | 165.6 | 161.6 | 174.2 | 188.2 | 213.3 | 232.2 | 235.1 |
| 81° | 194.6 | 173.7 | 162.9 | 147.5 | 144.2 | 142.2 | 155.1 | 162.7 | 184.0 | 198.4 | 200.6 |
| 82° | 167.3 | 153.2 | 140.0 | 131.6 | 130.8 | 128.4 | 136.0 | 143.0 | 162.2 | 170.7 | 170.7 |
| 83° | 142.3 | 132.7 | 126.3 | 120.8 | 120.2 | 118.6 | 125.2 | 130.1 | 140.3 | 146.8 | 147.8 |
| 84° | 127.6 | 120.8 | 115.9 | 112.0 | 112.0 | 110.7 | 115.8 | 120.2 | 128.6 | 131.2 | 130.9 |
| 85° | 117.2 | 111.3 | 108.3 | 105.1 | 105.7 | 104.3 | 107.9 | 111.6 | 119.1 | 120.3 | 120.2 |
| 86° | 109.3 | 103.7 | 102.0 | 99.6 | 100.4 | 99.1 | 101.8 | 103.6 | 110.6 | 111.7 | 111.9 |
| 87° | 102.4 | 97.9 | 96.7 | 95.3 | 96.1 | 94.9 | 96.9 | 97.5 | 103.7 | 104.5 | 104.9 |
| 88° | 96.8 | 93.5 | 92.3 | 91.8 | 92.7 | 91.9 | 93.4 | 93.2 | 98.1 | 98.8 | 99.1 |
| 89° | 92.2 | 90.0 | 89.2 | 89.6 | 90.6 | 89.8 | 91.1 | 90.0 | 93.9 | 94.6 | 94.3 |



TEST NUMBER: P601050
CATALOG NUMBER: UHBS-15-MV-L840-U-CDL-277V

CANDELA DISTRIBUTION (continued):

| | 0° | 30° | 60° | 90° | 120° | 150° | 180° | 210° | 240° | 270° | 300° |
|-----|------|------|------|------|------|------|------|------|------|------|------|
| 90° | 88.9 | 87.7 | 87.2 | 88.4 | 89.7 | 88.8 | 89.6 | 88.1 | 90.5 | 91.1 | 90.6 |



TEST NUMBER: P601050
CATALOG NUMBER: UHBS-15-MV-L840-U-CDL-277V

CANDELA DISTRIBUTION (continued):

| | 330° | 360° |
|-----|--------|--------|
| 0° | 4695.1 | 4695.1 |
| 1° | 4700.6 | 4636.1 |
| 2° | 4676.7 | 4646.7 |
| 3° | 4727.3 | 4608.0 |
| 4° | 4785.1 | 4629.7 |
| 5° | 4747.8 | 4668.9 |
| 6° | 4708.8 | 4699.6 |
| 7° | 4763.4 | 4660.5 |
| 8° | 4801.4 | 4739.9 |
| 9° | 4830.6 | 4734.0 |
| 10° | 4872.2 | 4752.1 |
| 11° | 4968.2 | 4865.0 |
| 12° | 4921.4 | 5088.7 |
| 13° | 5062.1 | 5123.1 |
| 14° | 5276.4 | 5156.8 |
| 15° | 5322.2 | 5332.5 |
| 16° | 5427.2 | 5430.8 |
| 17° | 5384.5 | 5575.9 |
| 18° | 5674.9 | 5760.4 |
| 19° | 5769.6 | 5702.0 |
| 20° | 5894.2 | 5890.9 |
| 21° | 6084.0 | 5982.5 |
| 22° | 6172.6 | 6051.3 |
| 23° | 6150.3 | 6143.1 |
| 24° | 6229.1 | 6303.2 |
| 25° | 6293.3 | 6179.9 |
| 26° | 6239.3 | 6079.6 |
| 27° | 6046.6 | 6129.2 |
| 28° | 6020.9 | 5990.6 |
| 29° | 5932.4 | 5814.2 |
| 30° | 5799.0 | 5634.4 |
| 31° | 5516.0 | 5493.8 |
| 32° | 5448.9 | 5250.6 |
| 33° | 5139.5 | 4983.3 |
| 34° | 4944.5 | 4848.4 |
| 35° | 4810.6 | 4660.0 |
| 36° | 4606.5 | 4487.7 |
| 37° | 4339.7 | 4249.0 |
| 38° | 4219.4 | 4133.3 |
| 39° | 4116.0 | 4003.8 |
| 40° | 3971.4 | 3849.3 |
| 41° | 3830.8 | 3706.3 |
| 42° | 3714.6 | 3645.1 |
| 43° | 3555.8 | 3488.6 |
| 44° | 3457.6 | 3310.1 |



TEST NUMBER: P601050
 CATALOG NUMBER: UHBS-15-MV-L840-U-CDL-277V

CANDELA DISTRIBUTION (continued):

| | 330° | 360° |
|-----|--------|--------|
| 45° | 3333.5 | 3131.8 |
| 46° | 3068.9 | 2964.6 |
| 47° | 2934.4 | 2784.3 |
| 48° | 2709.4 | 2607.3 |
| 49° | 2511.7 | 2422.6 |
| 50° | 2320.5 | 2227.8 |
| 51° | 2178.6 | 2078.9 |
| 52° | 2010.4 | 1933.0 |
| 53° | 1864.9 | 1779.9 |
| 54° | 1758.6 | 1677.9 |
| 55° | 1675.3 | 1607.9 |
| 56° | 1601.5 | 1541.5 |
| 57° | 1524.6 | 1457.9 |
| 58° | 1440.8 | 1382.3 |
| 59° | 1357.1 | 1312.9 |
| 60° | 1288.9 | 1253.6 |
| 61° | 1243.9 | 1205.4 |
| 62° | 1185.4 | 1152.1 |
| 63° | 1134.8 | 1093.1 |
| 64° | 1067.2 | 1039.6 |
| 65° | 1006.6 | 981.3 |
| 66° | 934.5 | 915.2 |
| 67° | 873.0 | 860.5 |
| 68° | 812.1 | 792.2 |
| 69° | 756.1 | 734.1 |
| 70° | 695.3 | 678.8 |
| 71° | 637.2 | 625.5 |
| 72° | 576.3 | 571.0 |
| 73° | 529.6 | 517.7 |
| 74° | 477.6 | 464.6 |
| 75° | 434.3 | 418.8 |
| 76° | 387.0 | 376.7 |
| 77° | 341.1 | 341.8 |
| 78° | 299.9 | 302.8 |
| 79° | 261.3 | 263.9 |
| 80° | 226.6 | 227.8 |
| 81° | 192.8 | 194.6 |
| 82° | 165.0 | 167.3 |
| 83° | 142.3 | 142.3 |
| 84° | 126.8 | 127.6 |
| 85° | 115.9 | 117.2 |
| 86° | 107.9 | 109.3 |
| 87° | 101.4 | 102.4 |
| 88° | 96.1 | 96.8 |
| 89° | 92.1 | 92.2 |



TEST NUMBER: P601050
CATALOG NUMBER: UHBS-15-MV-L840-U-CDL-277V

CANDELA DISTRIBUTION (continued):

| | | |
|-----|------|------|
| | 330° | 360° |
| 90° | 88.9 | 88.9 |

(END OF REPORT)