

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: P601070

Luminaire Tested: UHBS-30-MV-L850-U-CDL-277V

Issue Date: 8/28/2023

Test Information

Test Method: LM-79-2019
Report Number: P601070
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-30-MV-L850-U-CDL-277V
Description: UHB Round Select with Clear Reflector with Lens Cover at 277V 30000 LUMEN SETTING AND 5000K
Light Source: -
Ballast/Driver: Electrical Driver

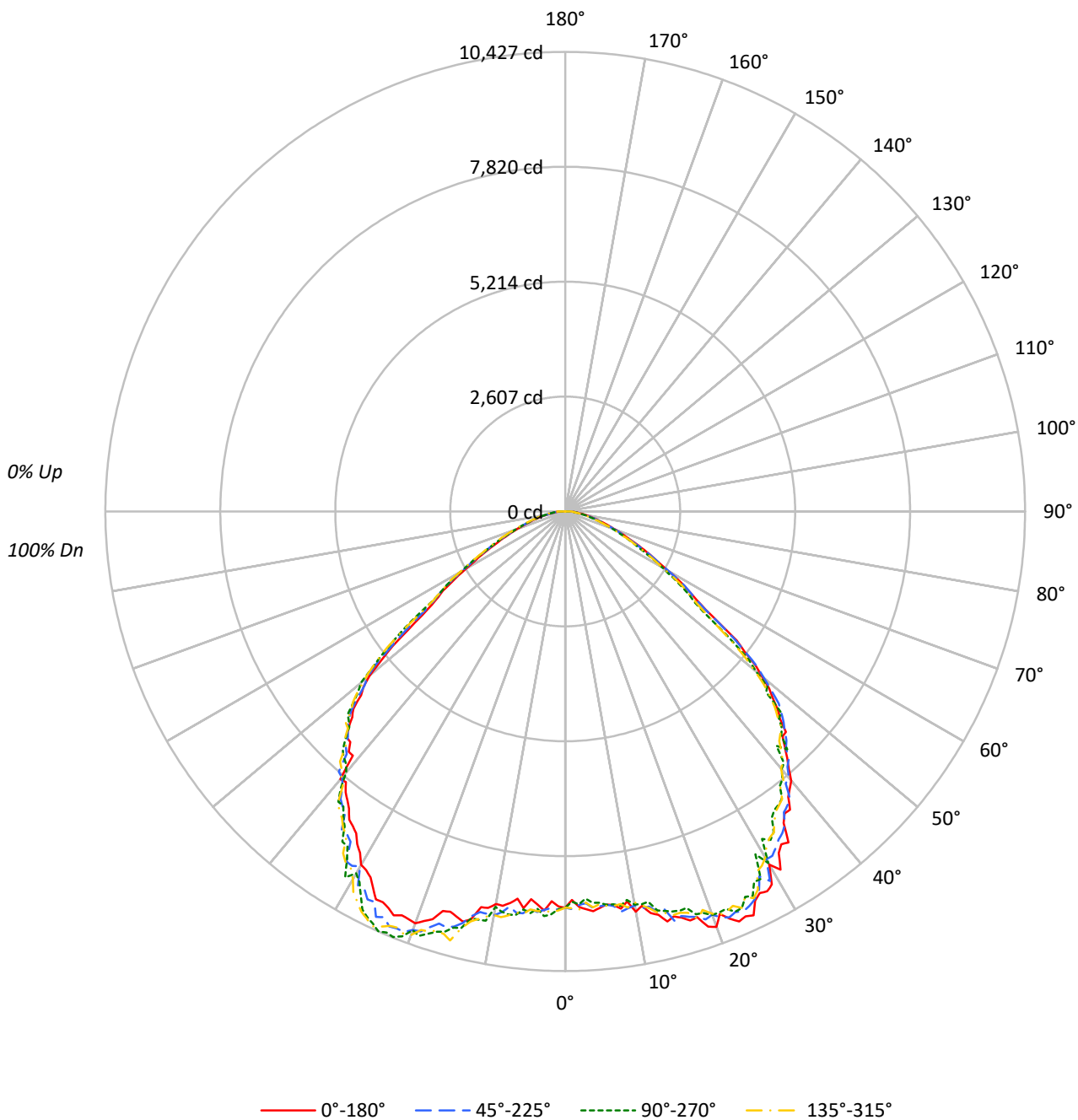
Summary

Lumens per Lamp: 25380 (1 lamp)
Luminaire Lumens: 25380.0 lumens
Efficiency: 100.0%
Efficacy: 128.9 lumens/watt
Spacing Criteria (0/90/45): 1.44 / 1.44 / 1.47
Luminous Opening: Circular (Dia: 1.33' x H: 0')
CIE Type: Direct

Input Watts (W): 196.9
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

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CATALOG NUMBER: UHBS-30-MV-L850-U-CDL-277V

Luminous Intensity Polar Plot





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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	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75
3	93	84	76	70	91	82	75	70	79	73	69	77	72	67	74	70	66	64
4	86	75	67	61	84	74	66	60	71	65	59	69	63	59	67	62	58	56
5	79	67	59	53	77	66	58	53	64	57	52	62	56	51	60	55	51	49
6	73	61	52	46	72	60	52	46	58	51	46	57	50	45	55	49	45	43
7	68	55	47	41	66	55	47	41	53	46	41	52	45	41	50	45	40	38
8	63	51	42	37	62	50	42	37	49	42	37	47	41	36	46	40	36	34
9	59	46	39	33	58	46	38	33	45	38	33	44	37	33	43	37	33	31
10	56	43	35	30	54	42	35	30	41	35	30	40	34	30	40	34	30	28

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	69640	69640	69640	69640
5°	70208	69307	68691	71168
10°	72537	71241	71140	71679
15°	76295	75356	76327	78391
20°	82703	80299	81982	83355
25°	86434	82492	83624	88186
30°	82747	82390	82792	84795
35°	81635	78198	80748	82507
40°	80623	77179	80230	78161
45°	77570	76149	76104	75853
50°	70256	68009	69706	72794
55°	52578	48322	49848	54677
60°	41782	39525	40219	42314
65°	33690	31285	31727	33424
70°	27471	25575	25985	26980
75°	23412	21523	21886	22843
80°	21189	18753	18905	20707
85°	22651	19957	20428	22633

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 300°
 Vertical Angle: 89°
 Luminance: 79465 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	866.1	3.4	3.4
10°-20°	2725.4	10.7	10.7
20°-30°	4552.1	17.9	17.9
30°-40°	5386.6	21.2	21.2
40°-50°	5337.8	21.0	21.0
50°-60°	3594.8	14.2	14.2
60°-70°	1812.0	7.1	7.1
70°-80°	816.5	3.2	3.2
80°-90°	288.7	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°	8143.6	32.1	32.1
0°-40°	13530.2	53.3	53.3
0°-60°	22462.8	88.5	88.5
0°-90°	25380.0	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°	25380.0	100.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	8988	8988	8988	8988	8988	
5°	9027	8911	8832	9151	9027	862
15°	9512	9395	9516	9773	9512	2719
25°	10111	9650	9782	10316	10111	4559
35°	8631	8268	8537	8723	8631	5456
45°	7080	6950	6946	6923	7080	5356
55°	3892	3577	3690	4048	3892	3664
65°	1838	1706	1731	1823	1838	1848
75°	782	719	731	763	782	850
85°	255	224	230	255	255	305
90°	160	156	157	161	160	



TEST NUMBER: P601070
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CANDELA DISTRIBUTION (FULL):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
0°	8988.4	8988.4	8988.4	8988.4	8988.4	8988.4	8988.4	8988.4	8988.4	8988.4	8988.4
1°	8815.1	9121.0	8931.4	8857.1	9103.7	8905.6	8962.8	9056.1	9018.5	9026.6	9072.8
2°	8976.1	8911.1	8955.2	8919.7	9051.6	9033.9	8846.9	8999.6	9005.3	9147.1	9139.0
3°	9036.8	9052.0	8746.0	8799.2	8936.6	8828.2	9065.9	8970.0	9138.8	9190.9	9160.9
4°	9090.9	9113.3	8923.6	8897.3	9004.9	9007.8	8941.1	9112.7	9101.3	9033.1	9210.1
5°	9027.2	9027.8	8956.3	8911.4	8926.8	8954.4	8832.1	9037.6	9048.6	9150.6	9092.8
6°	8966.2	8993.9	8949.6	8974.0	9058.5	8934.4	9051.1	9144.5	9194.4	9078.8	9176.4
7°	9003.0	9041.7	8995.5	8980.9	9041.2	8984.3	8850.3	9056.6	9281.2	9224.7	9223.4
8°	9097.5	9247.6	9086.1	9034.3	9014.9	8977.5	8971.1	9012.5	9087.9	9232.6	9329.3
9°	8956.5	9242.3	8985.8	8923.9	9149.2	9050.4	9056.6	9201.6	9209.1	9195.3	9146.2
10°	9220.1	9053.1	9098.6	9055.3	8932.7	9073.3	9042.5	9315.6	9288.7	9111.0	9432.8
11°	9114.2	9309.3	9029.6	9077.1	9018.9	9188.0	9164.7	9250.2	9346.1	9456.7	9360.0
12°	9315.3	9276.4	9057.9	9052.0	9170.4	9249.3	9176.8	9336.3	9245.1	9471.6	9489.5
13°	9392.4	9455.3	9192.3	9289.2	9366.6	9321.7	9498.2	9328.6	9513.9	9467.7	9598.8
14°	9586.3	9364.6	9230.9	9343.7	9356.6	9420.2	9591.6	9597.1	9645.3	9743.6	9755.9
15°	9511.8	9753.5	9509.2	9394.7	9516.8	9440.2	9515.8	9800.3	9698.8	9773.1	10202.7
16°	9588.9	9608.8	9487.7	9423.1	9454.0	9486.7	9445.3	9766.4	9858.6	9919.2	10016.7
17°	9700.7	9696.7	9534.8	9407.5	9437.0	9609.9	9480.6	9767.8	9789.0	9970.3	10013.7
18°	9680.3	9807.5	9541.7	9608.6	9708.1	9730.6	9725.8	9879.6	9955.8	10077.7	10037.7
19°	9962.0	9832.6	9744.3	9635.6	9580.9	9545.6	9828.2	9919.4	10233.7	10184.7	10069.7
20°	10030.7	9855.7	9612.8	9739.1	9754.4	9667.1	9943.2	9979.5	10227.7	10109.7	10233.7
21°	9782.5	9912.9	9813.8	9748.2	9821.0	9782.1	9909.3	10227.7	10204.7	10324.7	10351.7
22°	9965.5	10018.7	9851.3	9725.2	9838.4	9749.1	9880.4	10037.7	10362.7	10413.7	10223.7
23°	10103.7	9843.6	9904.6	9862.9	9778.4	9663.3	9956.2	10134.7	10311.7	10379.7	10206.7
24°	10052.7	9965.4	9891.2	9849.4	9861.7	9827.1	9852.0	10010.7	10143.7	10426.7	10381.7
25°	10110.7	9942.0	9812.1	9649.6	9647.9	9652.2	9782.1	10107.7	10191.7	10315.7	10480.7
26°	9824.7	10015.7	9573.9	9701.6	9705.9	9813.6	9790.4	9786.6	9927.7	10240.7	10343.7
27°	9719.0	9878.4	9479.8	9432.4	9603.9	9641.3	9589.7	9752.3	10009.7	10134.7	10277.7
28°	9761.6	9479.5	9275.1	9444.6	9344.7	9179.9	9400.0	9588.0	9810.3	9873.4	10145.7
29°	9669.1	9670.5	9499.5	8891.5	9130.7	9251.5	9307.2	9877.5	9516.5	9621.1	10162.7
30°	9249.2	9079.9	9157.7	9209.3	9156.7	8988.2	9254.3	9375.8	9222.6	9478.1	9575.4
31°	9480.7	9273.5	8954.4	8665.1	8733.8	8974.8	9036.9	9381.2	9378.3	9688.6	9414.0
32°	9135.4	8862.1	9146.9	8785.4	8726.4	8749.7	8894.9	9351.6	9379.2	9337.1	9581.4
33°	9001.6	9078.1	8687.0	8681.3	8647.2	8719.8	8703.1	8950.0	8917.9	9062.9	9278.5
34°	9059.2	8827.3	8777.6	8379.9	8469.6	8504.2	8610.6	8928.5	8753.6	9038.5	8873.5
35°	8631.1	8800.4	8559.0	8267.7	8354.1	8285.3	8537.3	8899.7	8777.0	8723.3	8915.4
36°	8466.2	8569.7	8302.2	8224.6	8271.3	8216.3	8336.8	8457.4	8550.0	8556.0	8629.0
37°	8469.9	8397.2	8333.5	8165.0	8189.3	8154.6	8206.8	8443.9	8322.3	8359.1	8603.9
38°	8217.5	8377.8	8182.5	7905.7	7865.3	7981.9	8086.7	8410.0	8141.6	8356.6	8392.1
39°	8095.2	7937.6	7944.1	7822.6	7851.6	7876.2	7898.5	8025.3	8022.5	8087.1	8109.5
40°	7971.4	7883.8	7905.5	7630.9	7545.0	7691.3	7932.6	7925.7	7820.0	7728.0	7932.5
41°	7729.9	7774.7	7585.6	7561.7	7528.6	7508.8	7341.2	7870.3	7781.0	7574.5	7762.4
42°	7522.8	7555.6	7590.5	7158.0	7284.8	7355.3	7335.6	7530.9	7285.4	7506.2	7713.6
43°	7300.4	7370.0	7308.0	7382.7	7092.9	7148.2	7148.0	7347.2	7234.3	7394.7	7241.1
44°	7092.7	7270.3	7174.1	7051.1	6982.2	7063.8	7127.4	7146.3	7039.1	7174.4	7261.3



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CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
45°	7079.5	7108.0	6968.2	6949.8	6859.2	7014.8	6945.7	7029.7	6911.5	6922.8	7029.6
46°	6775.5	6827.3	6941.6	6732.1	6756.7	6631.0	6713.3	6937.2	6732.7	6826.7	6965.6
47°	6586.2	6668.7	6729.6	6711.9	6482.9	6500.5	6571.6	6714.2	6567.0	6744.6	6647.7
48°	6334.3	6535.4	6497.1	6132.9	6199.4	6271.4	6232.7	6367.0	6331.5	6445.3	6575.4
49°	6129.0	6137.0	6244.4	6065.7	5978.9	5950.4	6058.1	6159.4	5908.7	6216.7	6240.1
50°	5828.7	5846.3	5950.0	5642.3	5573.0	5615.7	5783.1	5939.8	5763.6	6039.3	5965.1
51°	5560.3	5587.6	5619.0	5370.3	5179.5	5270.1	5356.2	5599.2	5473.4	5619.2	5688.4
52°	5164.8	5196.7	5209.6	4881.9	4734.7	4853.9	4965.5	5157.1	4973.1	5254.4	5402.1
53°	4866.8	4880.4	4706.6	4357.7	4198.7	4414.1	4447.4	4679.8	4580.8	4864.5	4921.3
54°	4327.9	4351.9	4287.5	3871.0	3878.6	4009.6	4009.6	4229.4	4160.9	4476.8	4470.1
55°	3892.4	3879.4	3849.2	3577.3	3575.7	3713.1	3690.3	3846.6	3778.1	4047.8	3990.2
56°	3592.8	3604.7	3549.9	3405.1	3370.5	3488.9	3474.0	3603.4	3512.1	3616.7	3606.5
57°	3384.4	3408.3	3367.1	3185.0	3209.6	3290.0	3303.1	3412.2	3336.3	3374.8	3403.8
58°	3175.9	3215.5	3183.9	2964.9	2988.9	3090.8	3058.4	3220.5	3120.9	3185.7	3201.2
59°	2950.4	2953.3	2959.3	2740.1	2735.5	2832.0	2818.7	2965.5	2905.2	2980.1	3021.2
60°	2696.4	2706.0	2711.8	2550.7	2501.0	2585.9	2595.5	2730.7	2665.3	2730.7	2756.0
61°	2478.2	2510.7	2477.1	2355.5	2333.7	2394.4	2385.8	2530.6	2460.0	2525.2	2550.7
62°	2315.2	2322.8	2289.2	2157.5	2166.2	2203.0	2223.1	2323.7	2288.0	2347.2	2355.3
63°	2147.2	2162.1	2138.9	1997.1	2012.8	2020.3	2040.6	2134.6	2082.5	2154.7	2177.9
64°	1996.5	1967.2	1955.4	1834.9	1829.6	1877.9	1888.4	1980.1	1940.0	1980.5	2009.0
65°	1837.7	1784.4	1781.2	1706.5	1690.7	1746.6	1730.6	1831.5	1782.8	1823.2	1862.7
66°	1689.9	1646.3	1637.8	1574.4	1554.6	1602.1	1606.1	1705.0	1643.3	1689.7	1721.1
67°	1549.1	1529.9	1526.8	1447.1	1426.2	1452.2	1472.5	1566.9	1511.2	1548.2	1601.1
68°	1429.5	1411.3	1413.6	1330.3	1297.7	1329.9	1362.7	1432.1	1390.4	1416.3	1487.2
69°	1318.6	1292.8	1288.4	1234.1	1187.7	1217.1	1250.0	1312.5	1269.8	1284.5	1359.9
70°	1212.7	1178.9	1189.6	1129.0	1100.9	1117.6	1147.1	1208.3	1167.9	1191.0	1245.7
71°	1116.9	1090.9	1096.3	1034.4	1018.4	1037.3	1047.4	1114.7	1068.1	1106.7	1144.3
72°	1026.3	1000.4	1001.8	948.7	930.3	945.9	961.0	1026.9	978.6	1015.8	1047.5
73°	948.3	912.6	922.0	869.5	845.4	853.8	873.9	934.2	899.8	922.1	963.9
74°	868.0	832.5	836.6	792.8	763.1	772.3	801.6	845.0	816.4	834.3	879.5
75°	782.1	760.6	758.4	719.0	688.8	701.4	731.1	764.9	744.2	763.1	804.2
76°	709.3	687.8	684.7	650.4	627.8	637.5	664.0	693.4	670.3	691.6	735.8
77°	648.0	616.6	620.8	589.1	562.2	571.8	597.9	630.4	605.8	634.0	669.2
78°	589.8	559.2	562.9	527.1	502.3	512.4	534.9	567.9	543.5	576.3	611.1
79°	532.1	498.2	508.0	471.6	446.0	457.4	477.0	510.8	488.3	518.6	555.1
80°	474.9	447.2	456.9	420.3	399.7	405.6	423.7	455.9	438.5	464.1	500.8
81°	425.7	401.1	408.8	373.1	355.5	358.6	378.7	406.3	394.0	414.6	447.3
82°	378.9	356.3	360.2	329.3	311.3	315.6	332.5	360.1	348.2	371.9	398.1
83°	334.3	311.4	317.0	286.2	269.4	272.6	291.2	318.7	307.1	329.2	350.1
84°	294.5	271.8	273.9	251.2	238.8	241.2	257.2	277.3	269.5	289.3	309.6
85°	254.8	242.0	242.9	224.5	215.0	217.1	229.8	246.6	239.8	254.6	269.2
86°	227.7	218.0	218.3	203.0	195.6	197.6	207.9	221.5	216.1	228.4	239.1
87°	204.9	198.0	198.2	185.6	179.8	181.5	189.8	200.7	196.7	206.3	215.1
88°	186.3	181.3	181.4	170.4	166.7	167.4	174.0	183.1	179.9	188.8	195.5
89°	170.7	167.2	167.0	161.3	159.4	159.9	163.2	169.0	166.6	173.3	179.0



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CATALOG NUMBER: UHBS-30-MV-L850-U-CDL-277V

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
90°	160.3	159.8	159.5	155.6	155.0	155.9	157.3	162.2	159.9	161.1	166.0

TEST NUMBER: P601070
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CANDELA DISTRIBUTION (continued):

	330°	360°
0°	8988.4	8988.4
1°	9036.3	8815.1
2°	9042.2	8976.1
3°	8987.6	9036.8
4°	8968.7	9090.9
5°	9035.1	9027.2
6°	9192.0	8966.2
7°	9113.5	9003.0
8°	9176.3	9097.5
9°	9491.5	8956.5
10°	9163.7	9220.1
11°	9370.4	9114.2
12°	9410.3	9315.3
13°	9493.3	9392.4
14°	9738.0	9586.3
15°	9950.6	9511.8
16°	9930.4	9588.9
17°	9886.2	9700.7
18°	9987.7	9680.3
19°	10016.7	9962.0
20°	10222.7	10030.7
21°	10162.7	9782.5
22°	10137.7	9965.5
23°	10223.7	10103.7
24°	10235.7	10052.7
25°	10285.7	10110.7
26°	10200.7	9824.7
27°	10097.7	9719.0
28°	9923.0	9761.6
29°	9648.9	9669.1
30°	9682.5	9249.2
31°	9475.3	9480.7
32°	9202.5	9135.4
33°	9219.0	9001.6
34°	8845.8	9059.2
35°	8647.8	8631.1
36°	8591.0	8466.2
37°	8413.3	8469.9
38°	8314.9	8217.5
39°	7918.2	8095.2
40°	7838.8	7971.4
41°	7699.8	7729.9
42°	7555.5	7522.8
43°	7332.4	7300.4
44°	7146.1	7092.7

TEST NUMBER: P601070
CATALOG NUMBER: UHBS-30-MV-L850-U-CDL-277V

CANDELA DISTRIBUTION (continued):

	330°	360°
45°	6896.2	7079.5
46°	6854.5	6775.5
47°	6603.7	6586.2
48°	6387.6	6334.3
49°	6220.3	6129.0
50°	5928.9	5828.7
51°	5583.9	5560.3
52°	5216.5	5164.8
53°	4851.6	4866.8
54°	4397.9	4327.9
55°	3916.3	3892.4
56°	3586.2	3592.8
57°	3362.5	3384.4
58°	3175.2	3175.9
59°	2999.2	2950.4
60°	2764.0	2696.4
61°	2557.1	2478.2
62°	2366.0	2315.2
63°	2208.2	2147.2
64°	2033.8	1996.5
65°	1892.2	1837.7
66°	1741.1	1689.9
67°	1600.0	1549.1
68°	1487.4	1429.5
69°	1374.8	1318.6
70°	1269.5	1212.7
71°	1158.4	1116.9
72°	1062.5	1026.3
73°	975.8	948.3
74°	892.1	868.0
75°	812.4	782.1
76°	735.5	709.3
77°	672.8	648.0
78°	612.8	589.8
79°	554.6	532.1
80°	495.7	474.9
81°	440.7	425.7
82°	392.7	378.9
83°	346.3	334.3
84°	304.9	294.5
85°	267.4	254.8
86°	238.6	227.7
87°	214.8	204.9
88°	195.0	186.3
89°	177.9	170.7



TEST NUMBER: P601070
CATALOG NUMBER: UHBS-30-MV-L850-U-CDL-277V

CANDELA DISTRIBUTION (continued):

	330°	360°
90°	165.0	160.3

(END OF REPORT)