

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: P601063

Luminaire Tested: UHBS-30-MV-L840-U-CDL-120V

Issue Date: 8/28/2023

**Test Information**

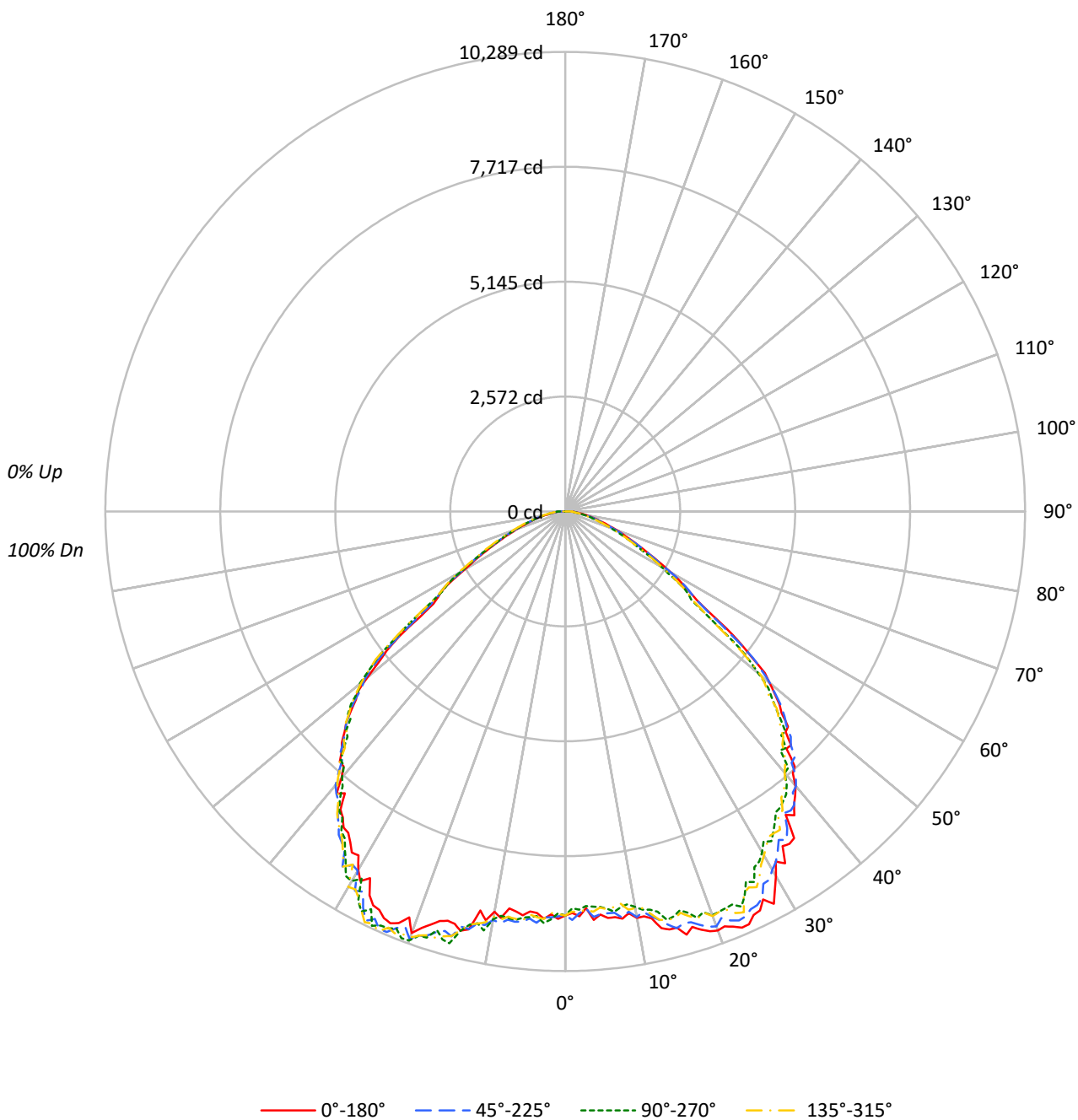
Test Method: LM-79-2019  
Report Number: P601063  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ( )  
Test Lab: INNOVATION CENTER  
Issue Date: 8/28/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: UHBS-30-MV-L840-U-CDL-120V  
Description: UHB Round Select with Clear Reflector with Lens Cover at 120V 30000 LUMEN SETTING AND 4000K  
Light Source: -  
Ballast/Driver: Electrical Driver

**Summary**

Lumens per Lamp: 25339 (1 lamp)  
Luminaire Lumens: 25339.0 lumens  
Efficiency: 100.0%  
Efficacy: 126.4 lumens/watt  
Spacing Criteria (0/90/45): 1.44 / 1.43 / 1.47  
Luminous Opening: Circular (Dia: 1.33' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 200.5  
Input Voltage (V): 120  
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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### 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°	70083	70083	70083	70083
5°	70448	69128	69917	70881
10°	72688	70730	71599	72902
15°	77384	75278	76667	80271
20°	82328	79291	82817	84276
25°	85229	81179	84142	87492
30°	84329	78789	82882	85474
35°	84460	77709	81739	82630
40°	81036	77288	78724	78519
45°	76419	76365	76443	75907
50°	71956	68178	69720	72277
55°	53002	46490	48667	53502
60°	42264	38750	40326	41821
65°	33393	30442	31842	32972
70°	27915	24909	25997	26991
75°	23652	20694	21775	22535
80°	21202	18222	19221	20564
85°	22686	19344	20455	22633

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 300°  
 Vertical Angle: 89°  
 Luminance: 79154 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	868.4	3.4	3.4
10°-20°	2728.7	10.8	10.8
20°-30°	4522.6	17.8	17.8
30°-40°	5385.4	21.3	21.3
40°-50°	5339.8	21.1	21.1
50°-60°	3594.3	14.2	14.2
60°-70°	1800.7	7.1	7.1
70°-80°	811.8	3.2	3.2
80°-90°	287.3	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°	8119.7	32.0	32.0
0°-40°	13505.1	53.3	53.3
0°-60°	22439.1	88.6	88.6
0°-90°	25339.0	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°	25339.0	100.0	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	9046	9046	9046	9046	9046	
5°	9058	8888	8990	9114	9058	871
15°	9648	9385	9558	10008	9648	2745
25°	9970	9496	9843	10234	9970	4586
35°	8930	8216	8642	8736	8930	5472
45°	6974	6970	6977	6928	6974	5410
55°	3924	3442	3603	3961	3924	3709
65°	1822	1660	1737	1798	1822	1853
75°	790	691	727	753	790	855
85°	255	218	230	255	255	304
90°	160	152	155	157	160	



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**CANDELA DISTRIBUTION (FULL):**

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
0°	9045.6	9045.6	9045.6	9045.6	9045.6	9045.6	9045.6	9045.6	9045.6	9045.6	9045.6
1°	8989.2	9129.8	9161.3	8887.3	9094.9	8829.6	9120.7	8977.8	9152.4	8998.3	9117.0
2°	9068.0	8990.3	9016.1	8920.7	8942.4	8988.9	9024.2	9062.1	9129.6	9141.5	9031.8
3°	8895.1	8926.5	8874.1	8847.7	8899.8	8946.7	9129.2	8979.3	9216.9	9228.9	9127.1
4°	9164.8	9189.7	9012.7	8868.2	8995.5	8974.5	9010.4	9199.3	9261.9	9083.6	9157.5
5°	9058.1	9044.3	9046.0	8888.4	8933.0	8869.4	8989.8	9133.3	9161.9	9113.8	9163.7
6°	9150.8	9003.8	9085.5	8941.0	8992.8	8908.8	9089.1	9140.3	9336.2	9149.2	9241.1
7°	9152.4	9082.5	9024.3	9029.1	8855.3	8998.7	9022.1	9157.9	9352.5	9212.4	9217.0
8°	9206.3	9203.3	9162.4	8945.6	8823.1	8901.4	8972.3	9219.8	9234.0	9189.5	9236.0
9°	9106.4	9076.1	9066.8	8902.4	9079.9	8970.8	9212.5	9225.7	9435.3	9164.8	9186.0
10°	9239.2	9297.0	9144.9	8990.4	8993.2	9046.5	9100.8	9189.9	9380.0	9266.4	9246.2
11°	9235.9	9199.1	9057.3	9080.2	9128.6	8961.4	9324.7	9379.6	9483.3	9557.6	9435.0
12°	9316.8	9345.5	9190.9	9115.3	9192.7	9226.5	9130.8	9388.5	9467.3	9426.0	9477.3
13°	9576.3	9476.9	9295.1	9198.8	9526.5	9250.4	9601.0	9484.4	9705.4	9491.5	9555.3
14°	9645.5	9475.2	9603.1	9425.9	9473.0	9376.3	9674.6	9497.7	9672.7	9676.1	9699.0
15°	9647.6	9696.7	9617.2	9385.0	9460.9	9413.2	9558.2	9547.7	10144.5	10007.5	10000.5
16°	9855.8	9649.0	9539.8	9292.2	9342.1	9352.8	9529.4	9798.4	9736.7	9969.1	9976.7
17°	9724.4	9699.9	9537.4	9393.9	9500.1	9450.3	9588.6	9800.7	9890.5	9802.2	10171.5
18°	9845.8	9756.2	9709.1	9566.2	9593.5	9571.7	9721.5	9874.2	10078.5	10030.5	10058.5
19°	9941.9	9951.9	9710.7	9487.8	9515.6	9470.4	9859.1	9907.2	10207.5	10042.5	10098.5
20°	9985.2	9905.6	9867.7	9616.9	9605.7	9677.8	10044.5	9947.0	10419.5	10221.5	10258.5
21°	9950.4	9852.2	9650.6	9599.7	9641.3	9570.4	9734.7	9833.8	10118.5	10232.5	10156.5
22°	10026.5	10102.5	9651.8	9581.4	9576.7	9656.8	9939.8	9833.2	10274.5	10072.5	10349.5
23°	10121.5	10035.5	9861.4	9561.0	9755.4	9775.1	10014.5	10015.5	10434.4	10138.5	10194.5
24°	10115.5	10040.5	9804.7	9685.9	9880.5	9767.2	9967.1	10065.5	10397.5	10147.5	10367.5
25°	9969.8	9842.5	9802.7	9496.0	9390.7	9494.2	9842.6	9906.7	10229.5	10234.5	10240.5
26°	9941.6	9944.3	9659.6	9221.1	9301.8	9431.3	9807.7	10087.5	10303.5	9904.7	10398.5
27°	9750.2	9777.9	9648.5	9312.3	9563.7	9310.2	9646.7	9833.3	10074.5	10052.5	10180.5
28°	9946.8	9521.8	9364.5	9018.2	9453.7	9066.5	9299.6	9384.1	9896.0	9868.3	9923.5
29°	9682.4	9373.8	9483.8	8958.5	9000.5	9084.5	9461.1	9810.0	9600.7	9396.7	9954.7
30°	9426.1	9261.4	9265.6	8806.8	8920.0	8868.9	9264.3	9195.3	9376.2	9554.0	9944.4
31°	9144.8	9261.7	9036.4	8620.7	8653.5	8831.2	8982.9	9185.9	9276.1	9527.0	9248.9
32°	9286.3	8976.0	8962.4	8703.9	8599.3	8578.0	9004.3	9317.5	9498.2	9267.3	9458.9
33°	8934.7	8836.6	8705.7	8556.2	8620.2	8546.7	8829.8	8974.8	9152.1	9048.1	9337.3
34°	8973.1	8773.6	8954.2	8388.6	8510.9	8678.4	8679.1	8926.8	8952.9	8822.7	8936.8
35°	8929.7	8826.5	8504.0	8216.0	8342.4	8258.7	8642.0	8879.6	8791.0	8736.3	8687.3
36°	8395.6	8315.9	8379.7	8192.0	8254.9	8300.0	8465.8	8649.0	8602.4	8484.6	8831.5
37°	8520.0	8395.8	8371.5	8109.2	8044.9	8019.4	8354.9	8463.5	8458.4	8401.4	8521.4
38°	8316.9	8414.9	8245.6	8033.5	7988.8	7880.8	8003.6	8282.4	8198.8	8190.4	8326.6
39°	8175.3	8108.0	8088.8	7875.2	7888.0	7770.2	8128.1	8167.3	8101.5	7916.5	8050.4
40°	8012.3	7996.4	8062.0	7641.7	7623.4	7656.2	7783.7	8003.1	7978.6	7763.4	7993.1
41°	7766.7	7827.2	7907.6	7604.3	7356.6	7641.2	7561.4	7660.9	7777.3	7544.2	7753.3
42°	7675.0	7469.3	7667.9	7190.8	7395.1	7287.7	7537.5	7553.4	7327.2	7501.1	7550.4
43°	7259.7	7457.5	7594.3	7240.8	7106.0	7143.8	7329.1	7453.3	7295.9	7270.2	7230.0
44°	7273.0	7257.4	7276.2	6956.6	7070.2	6984.6	7198.1	7095.2	7179.8	7013.4	7133.0



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**CANDELA DISTRIBUTION (continued):**

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
45°	6974.4	7182.3	7096.5	6969.5	6745.7	6880.5	6976.6	6971.7	6967.3	6927.7	6935.6
46°	6931.6	6811.6	6941.7	6709.0	6609.7	6657.2	6810.3	6810.2	6798.8	6676.4	6879.2
47°	6615.6	6670.0	6743.4	6436.2	6433.2	6522.0	6557.8	6522.8	6637.1	6648.8	6604.5
48°	6452.3	6454.4	6536.6	6214.2	6069.2	6151.3	6298.3	6348.0	6367.1	6444.0	6488.3
49°	6198.7	6179.9	6278.1	6019.0	5934.0	5958.9	6154.0	6089.6	6000.8	6138.2	6242.3
50°	5969.8	5955.4	6004.6	5656.3	5720.0	5740.8	5784.3	5898.8	5826.4	5996.4	5933.7
51°	5749.9	5615.3	5725.6	5316.0	5235.3	5356.4	5372.8	5549.4	5603.9	5645.1	5642.3
52°	5281.0	5219.0	5472.1	4911.9	4720.9	4934.4	5072.1	5202.7	5127.0	5343.5	5454.5
53°	4922.3	4837.2	4852.0	4312.3	4184.3	4357.9	4665.5	4763.9	4626.7	4880.3	4961.5
54°	4464.3	4379.5	4263.1	3831.2	3795.2	3899.0	4010.6	4197.0	4199.1	4419.6	4530.0
55°	3923.8	3873.8	3849.1	3441.7	3455.0	3602.5	3602.9	3777.1	3746.5	3960.8	4059.4
56°	3551.3	3522.3	3550.1	3331.0	3292.1	3414.3	3424.1	3484.2	3463.4	3562.8	3604.4
57°	3349.5	3347.2	3353.0	3189.2	3157.0	3202.4	3315.7	3328.4	3330.2	3257.0	3384.0
58°	3147.9	3208.0	3156.1	2947.7	2942.6	2990.2	3121.3	3171.5	3166.4	3121.8	3164.2
59°	2956.1	2973.6	2973.2	2683.8	2694.7	2761.6	2844.7	2917.6	2886.2	2941.7	3018.4
60°	2727.5	2716.3	2712.6	2500.7	2486.2	2553.1	2602.4	2690.1	2673.6	2698.9	2829.2
61°	2516.1	2489.0	2486.0	2333.8	2295.1	2364.5	2401.5	2496.8	2448.5	2498.2	2594.6
62°	2320.4	2279.1	2281.2	2149.4	2104.4	2183.9	2228.1	2313.3	2280.6	2317.5	2388.1
63°	2135.6	2132.1	2113.7	1947.9	1928.6	2003.5	2052.3	2146.2	2104.5	2135.8	2201.1
64°	1977.3	1974.1	1970.9	1786.1	1764.5	1831.0	1879.2	1965.9	1934.5	1960.8	2047.2
65°	1821.5	1805.1	1790.6	1660.5	1634.4	1690.3	1736.9	1815.9	1780.0	1798.5	1899.1
66°	1691.8	1641.9	1649.2	1538.8	1529.9	1566.8	1603.6	1674.3	1632.6	1652.9	1739.2
67°	1556.3	1517.7	1520.5	1425.4	1403.1	1441.5	1476.8	1553.2	1515.3	1541.8	1587.9
68°	1434.1	1403.2	1417.5	1302.0	1276.1	1311.6	1350.1	1417.1	1397.9	1414.3	1466.2
69°	1332.2	1288.7	1309.2	1186.8	1163.8	1199.8	1243.1	1295.7	1280.4	1286.8	1352.5
70°	1232.3	1177.5	1188.1	1099.6	1077.6	1109.4	1147.6	1185.4	1165.2	1191.5	1255.4
71°	1129.6	1076.0	1082.2	1013.8	990.7	1017.8	1047.3	1092.1	1073.9	1092.6	1156.2
72°	1033.8	997.5	995.5	925.1	898.5	926.9	958.6	1005.3	991.5	1002.0	1056.1
73°	948.1	911.5	926.5	837.6	813.3	837.3	879.6	924.7	909.3	911.9	967.5
74°	871.2	826.5	844.9	760.8	736.7	760.2	805.0	838.3	823.4	829.5	890.0
75°	790.1	754.1	757.8	691.3	671.9	688.8	727.4	762.1	748.4	752.8	819.5
76°	719.9	685.1	684.7	631.6	607.7	622.1	667.4	689.2	682.6	686.7	741.9
77°	651.1	619.5	623.7	572.1	548.4	556.1	599.7	627.5	620.3	623.4	671.2
78°	586.7	559.0	563.6	512.1	491.0	497.8	537.6	565.3	560.2	566.2	608.9
79°	530.7	501.8	508.3	457.7	439.1	447.0	484.4	510.8	501.3	510.2	554.5
80°	475.2	451.7	455.2	408.4	388.3	399.5	430.8	456.6	448.1	460.9	498.1
81°	422.6	400.0	404.4	364.5	343.7	352.6	384.5	407.6	401.2	414.3	447.7
82°	379.0	356.2	358.6	320.2	302.3	311.3	336.9	360.0	357.8	374.2	403.7
83°	335.9	311.5	316.2	276.0	263.4	270.0	295.8	317.4	314.7	330.8	357.2
84°	291.3	271.8	273.9	243.0	233.1	237.0	259.4	274.7	275.6	290.6	314.7
85°	255.2	240.3	242.1	217.6	209.6	212.2	230.1	243.1	243.7	254.6	272.2
86°	227.6	216.4	217.9	196.6	190.7	192.5	207.7	217.8	218.2	227.1	240.7
87°	205.2	196.3	197.1	179.3	175.2	176.4	189.7	197.2	197.6	204.6	215.8
88°	186.2	179.3	179.6	164.8	165.7	162.6	173.2	180.2	180.5	186.2	195.3
89°	170.2	165.0	164.8	156.9	156.2	155.4	160.8	166.0	166.5	170.6	178.3



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**CANDELA DISTRIBUTION (continued):**

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
90°	159.8	157.3	157.9	151.6	151.8	151.5	155.3	159.1	159.3	157.4	164.1





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**CANDELA DISTRIBUTION (continued):**

	330°	360°
0°	9045.6	9045.6
1°	8910.0	8989.2
2°	8957.6	9068.0
3°	9140.9	8895.1
4°	9056.1	9164.8
5°	8953.9	9058.1
6°	9187.8	9150.8
7°	9157.9	9152.4
8°	9088.8	9206.3
9°	9310.7	9106.4
10°	9175.1	9239.2
11°	9307.5	9235.9
12°	9390.7	9316.8
13°	9424.9	9576.3
14°	9609.1	9645.5
15°	9678.1	9647.6
16°	9815.0	9855.8
17°	9780.9	9724.4
18°	9891.4	9845.8
19°	9983.9	9941.9
20°	10040.5	9985.2
21°	10125.5	9950.4
22°	10023.5	10026.5
23°	10052.5	10121.5
24°	10210.5	10115.5
25°	10119.5	9969.8
26°	10063.5	9941.6
27°	9892.4	9750.2
28°	9736.5	9946.8
29°	9399.6	9682.4
30°	9471.0	9426.1
31°	9193.0	9144.8
32°	9288.8	9286.3
33°	8901.9	8934.7
34°	8905.6	8973.1
35°	8801.3	8929.7
36°	8452.3	8395.6
37°	8425.9	8520.0
38°	8178.4	8316.9
39°	8095.9	8175.3
40°	7877.8	8012.3
41°	7646.2	7766.7
42°	7522.7	7675.0
43°	7223.5	7259.7
44°	7122.6	7273.0

TEST NUMBER: P601063  
CATALOG NUMBER: UHBS-30-MV-L840-U-CDL-120V

**CANDELA DISTRIBUTION (continued):**

	330°	360°
45°	6869.6	6974.4
46°	6782.0	6931.6
47°	6608.2	6615.6
48°	6346.6	6452.3
49°	6129.3	6198.7
50°	5969.0	5969.8
51°	5689.2	5749.9
52°	5296.9	5281.0
53°	4851.1	4922.3
54°	4454.6	4464.3
55°	3920.7	3923.8
56°	3541.6	3551.3
57°	3294.8	3349.5
58°	3167.9	3147.9
59°	3003.9	2956.1
60°	2745.8	2727.5
61°	2534.9	2516.1
62°	2342.8	2320.4
63°	2165.6	2135.6
64°	2023.0	1977.3
65°	1873.8	1821.5
66°	1732.7	1691.8
67°	1589.7	1556.3
68°	1473.1	1434.1
69°	1356.5	1332.2
70°	1255.0	1232.3
71°	1159.1	1129.6
72°	1058.3	1033.8
73°	975.8	948.1
74°	893.8	871.2
75°	819.1	790.1
76°	749.1	719.9
77°	675.2	651.1
78°	610.7	586.7
79°	548.7	530.7
80°	492.6	475.2
81°	442.4	422.6
82°	396.0	379.0
83°	351.7	335.9
84°	307.3	291.3
85°	268.6	255.2
86°	238.4	227.6
87°	213.9	205.2
88°	193.6	186.2
89°	176.1	170.2



TEST NUMBER: P601063  
CATALOG NUMBER: UHBS-30-MV-L840-U-CDL-120V

**CANDELA DISTRIBUTION (continued):**

	330°	360°
90°	162.8	159.8

(END OF REPORT)