

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: P601069

Luminaire Tested: UHBS-30-MV-L840-U-CDL-277V

Issue Date: 8/28/2023

Test Information

Test Method: LM-79-2019
Report Number: P601069
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-277V
Description: UHB Round Select with Clear Reflector with Lens Cover at 277V 30000 LUMEN SETTING AND 4000K
Light Source: -
Ballast/Driver: Electrical Driver

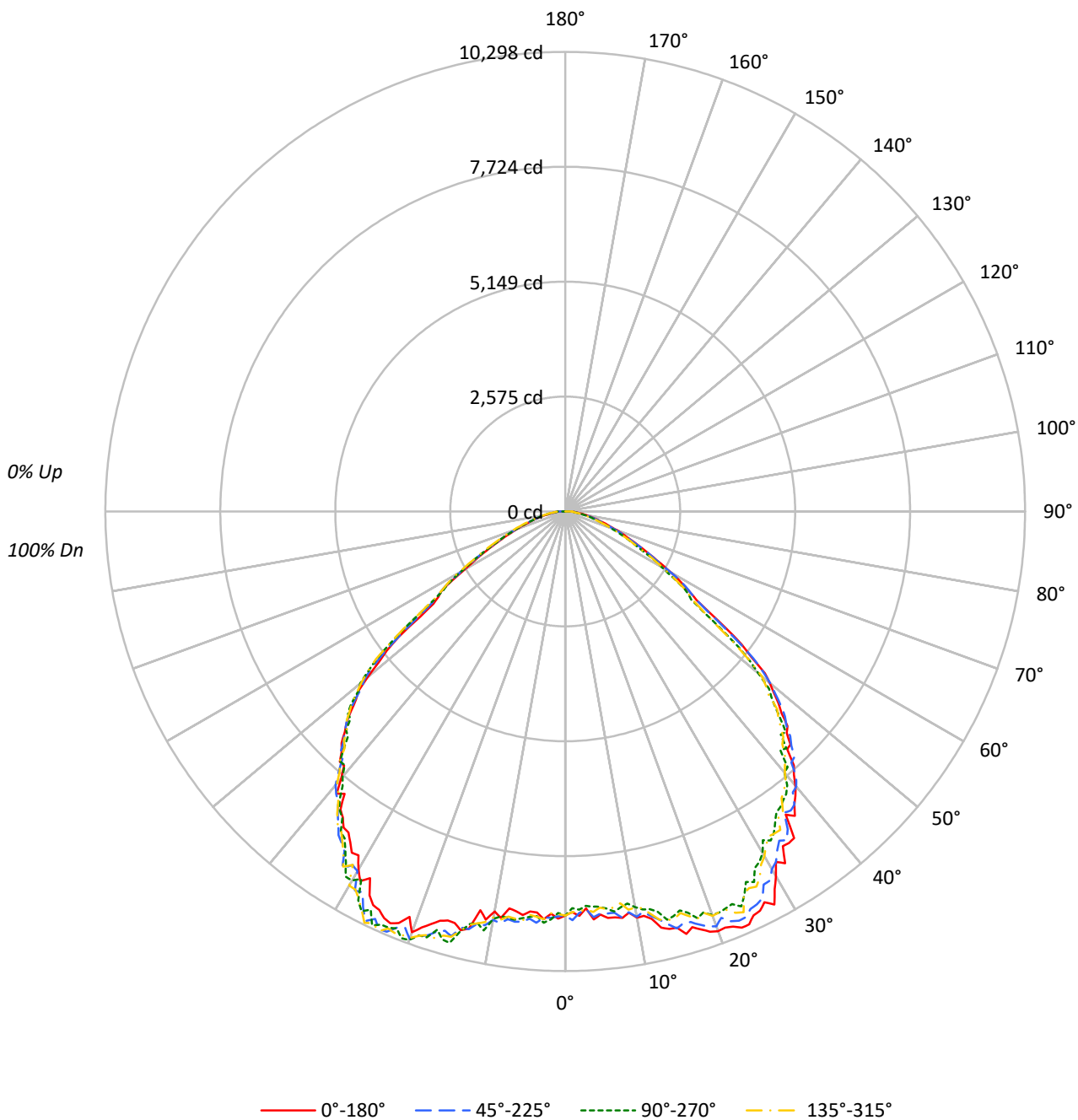
Summary

Lumens per Lamp: 25364 (1 lamp)
Luminaire Lumens: 25364.0 lumens
Efficiency: 100.0%
Efficacy: 129.1 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): 196.5
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-L840-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°	70138	70138	70138	70138
5°	70517	69167	69960	70901
10°	72705	70811	71627	72940
15°	77442	75278	76599	80263
20°	82512	79322	82743	84267
25°	85335	81115	84244	87483
30°	84441	79052	82852	85407
35°	84538	77963	81824	82832
40°	81153	77228	78868	78403
45°	76831	76508	76479	76004
50°	72050	68190	69710	72213
55°	53048	46506	48693	53394
60°	42301	38802	40388	41819
65°	33415	30493	31888	32968
70°	27954	24979	26008	26941
75°	23682	20724	21796	22469
80°	21220	18284	19217	20551
85°	22660	19379	20473	22597

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 300°
 Vertical Angle: 89°
 Luminance: 79110 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	869.1	3.4	3.4
10°-20°	2730.7	10.8	10.8
20°-30°	4527.6	17.9	17.9
30°-40°	5391.4	21.3	21.3
40°-50°	5344.6	21.1	21.1
50°-60°	3598.7	14.2	14.2
60°-70°	1802.1	7.1	7.1
70°-80°	812.3	3.2	3.2
80°-90°	287.5	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°	8127.4	32.0	32.0
0°-40°	13518.8	53.3	53.3
0°-60°	22462.1	88.6	88.6
0°-90°	25364.0	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°	25364.0	100.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	9053	9053	9053	9053	9053	
5°	9067	8893	8995	9116	9067	872
15°	9655	9385	9550	10006	9655	2747
25°	9982	9488	9855	10233	9982	4596
35°	8938	8243	8651	8758	8938	5479
45°	7012	6983	6980	6937	7012	5413
55°	3927	3443	3605	3953	3927	3712
65°	1823	1663	1739	1798	1823	1854
75°	791	692	728	751	791	856
85°	255	218	230	254	255	304
90°	160	152	155	157	160	



TEST NUMBER: P601069
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CANDELA DISTRIBUTION (FULL):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
0°	9052.6	9052.6	9052.6	9052.6	9052.6	9052.6	9052.6	9052.6	9052.6	9052.6	9052.6
1°	8979.4	9143.4	9172.6	8892.5	9121.5	8846.4	9124.2	8982.6	9163.9	9001.2	9136.2
2°	9063.8	8992.8	9016.6	8929.4	8943.1	8986.0	9020.0	9079.0	9141.4	9145.4	9047.9
3°	8904.6	8970.2	8877.8	8851.0	8915.2	8943.3	9147.6	8981.0	9232.3	9229.0	9157.0
4°	9166.6	9207.8	9020.3	8874.7	9008.0	8980.6	9007.7	9216.2	9266.1	9087.0	9164.7
5°	9067.0	9053.9	9036.5	8893.4	8946.9	8871.7	8995.3	9148.5	9169.1	9116.3	9204.2
6°	9158.8	9014.1	9099.4	8951.6	9028.0	8905.9	9094.9	9148.5	9341.0	9165.1	9254.8
7°	9166.2	9083.2	9032.2	9032.6	8874.9	8996.0	9022.1	9168.8	9357.8	9217.8	9230.0
8°	9199.1	9212.6	9172.9	8953.4	8827.1	8903.6	8981.1	9218.8	9238.1	9196.5	9253.7
9°	9102.6	9095.9	9090.8	8896.1	9094.2	8971.5	9218.3	9222.5	9448.0	9180.2	9202.5
10°	9241.4	9295.1	9157.0	9000.7	8990.2	9038.3	9104.4	9199.1	9392.6	9271.3	9275.4
11°	9233.1	9213.4	9067.7	9082.8	9141.6	8969.4	9320.5	9391.3	9501.1	9563.2	9443.9
12°	9332.4	9339.3	9194.3	9111.8	9227.0	9222.0	9131.5	9399.7	9479.2	9428.7	9485.3
13°	9570.8	9476.3	9296.3	9205.3	9538.9	9239.9	9596.2	9497.8	9718.4	9489.9	9573.8
14°	9642.0	9471.7	9600.7	9425.8	9508.1	9380.1	9672.2	9539.1	9677.5	9686.1	9729.0
15°	9654.8	9726.8	9619.9	9385.0	9487.2	9405.1	9549.7	9549.9	10151.5	10006.5	10041.5
16°	9848.1	9655.0	9549.4	9298.7	9365.8	9351.5	9536.6	9810.1	9738.6	9976.3	9962.1
17°	9740.9	9716.1	9527.0	9403.3	9519.2	9443.9	9589.1	9806.2	9892.3	9801.3	10193.4
18°	9846.8	9765.4	9705.8	9584.7	9615.6	9566.4	9723.2	9878.3	10093.5	10033.5	10073.5
19°	9958.4	9964.1	9712.7	9503.4	9545.2	9474.0	9858.3	9910.3	10221.4	10045.5	10131.5
20°	10007.5	9926.1	9858.3	9620.6	9609.6	9669.7	10035.5	9945.9	10433.4	10220.4	10279.4
21°	9988.2	9867.0	9642.1	9624.6	9655.8	9579.9	9733.4	9859.0	10133.5	10241.4	10181.5
22°	10034.5	10120.5	9679.6	9594.6	9604.0	9657.2	9947.2	9838.5	10275.4	10077.5	10358.4
23°	10128.5	10037.5	9883.8	9555.5	9776.0	9766.9	10026.5	10023.5	10441.4	10132.5	10226.4
24°	10128.5	10068.5	9832.5	9688.4	9886.8	9768.1	9972.3	10078.5	10405.4	10135.5	10389.4
25°	9982.2	9849.8	9801.0	9488.5	9406.9	9501.4	9854.6	9918.1	10233.4	10233.4	10246.4
26°	9955.9	9913.2	9679.3	9235.5	9337.6	9442.4	9810.2	10112.5	10309.4	9929.1	10442.4
27°	9826.5	9766.6	9685.2	9318.2	9561.3	9313.6	9656.8	9846.8	10083.5	10050.5	10178.5
28°	9975.1	9545.1	9392.0	9042.4	9485.9	9065.7	9305.8	9419.0	9902.8	9867.9	9928.0
29°	9674.2	9430.7	9481.2	8972.2	9001.2	9094.5	9468.4	9807.6	9618.4	9419.3	9962.8
30°	9438.6	9223.7	9295.2	8836.2	8966.7	8867.3	9261.0	9243.6	9361.7	9546.6	9920.9
31°	9161.3	9291.5	9035.8	8595.4	8650.9	8820.0	8991.9	9197.4	9296.3	9545.6	9278.1
32°	9292.6	8935.5	8974.5	8690.6	8595.8	8577.7	9018.9	9340.0	9510.9	9270.7	9488.0
33°	8944.0	8888.9	8711.2	8581.6	8653.2	8551.4	8840.9	9004.5	9149.4	9042.4	9336.3
34°	8958.9	8764.8	8990.1	8406.4	8538.6	8681.8	8676.9	8946.5	8961.7	8837.3	8937.1
35°	8938.0	8841.7	8533.5	8242.8	8368.5	8261.8	8651.0	8896.8	8801.9	8757.6	8677.2
36°	8395.0	8294.8	8388.4	8191.9	8277.4	8311.0	8471.0	8663.2	8629.3	8491.7	8827.9
37°	8543.5	8401.3	8382.4	8110.3	8068.4	8028.2	8363.4	8480.6	8450.3	8389.2	8539.1
38°	8338.9	8415.3	8251.8	8033.7	7997.2	7888.6	8025.0	8309.5	8203.4	8209.3	8331.8
39°	8196.6	8101.1	8095.6	7899.3	7926.7	7769.5	8135.1	8190.0	8112.2	7919.8	8041.6
40°	8023.8	8018.5	8082.7	7635.7	7658.0	7657.8	7797.9	8022.4	7977.2	7751.9	8008.5
41°	7802.9	7851.6	7921.2	7593.1	7352.8	7644.1	7548.3	7676.0	7790.2	7529.6	7746.7
42°	7655.2	7457.4	7677.8	7194.6	7422.3	7279.7	7543.0	7577.2	7321.2	7532.8	7577.6
43°	7286.5	7476.5	7574.9	7261.7	7118.7	7140.1	7336.9	7461.7	7295.1	7268.8	7254.3
44°	7260.9	7262.0	7319.2	6949.8	7096.2	6967.2	7210.7	7106.0	7189.1	7002.5	7152.6



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CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
45°	7012.0	7167.8	7092.8	6982.6	6764.6	6879.0	6979.9	6982.4	6977.8	6936.6	6949.2
46°	6921.1	6814.7	6948.1	6713.6	6618.6	6653.1	6806.3	6815.3	6804.7	6684.5	6888.5
47°	6626.8	6722.3	6738.0	6436.2	6460.8	6526.0	6553.8	6548.2	6647.8	6654.8	6628.8
48°	6425.0	6472.6	6528.0	6212.3	6091.1	6145.0	6303.8	6359.2	6359.3	6456.4	6503.5
49°	6190.7	6175.8	6293.7	6050.5	5948.3	5959.9	6137.7	6104.0	5989.7	6139.3	6242.5
50°	5977.6	5980.2	6004.3	5657.3	5748.6	5744.3	5783.4	5911.6	5842.7	5991.1	5929.3
51°	5757.4	5643.3	5751.0	5314.7	5258.2	5371.1	5373.0	5567.1	5598.4	5659.6	5652.0
52°	5274.4	5208.7	5481.3	4924.9	4741.7	4935.3	5071.3	5212.1	5121.9	5343.9	5456.2
53°	4942.5	4844.8	4866.4	4338.1	4199.7	4366.8	4674.6	4771.1	4636.6	4892.4	4976.1
54°	4455.3	4390.3	4303.3	3839.5	3814.8	3907.0	4010.3	4213.2	4200.6	4428.2	4514.7
55°	3927.2	3879.8	3856.2	3442.9	3466.2	3604.7	3604.8	3788.8	3749.9	3952.8	4044.0
56°	3552.7	3521.7	3562.0	3334.8	3299.8	3417.3	3431.1	3490.2	3471.6	3556.1	3602.0
57°	3352.6	3346.0	3362.4	3184.4	3171.5	3203.9	3318.1	3335.2	3334.3	3258.2	3384.0
58°	3152.4	3205.1	3162.7	2949.5	2954.6	2990.4	3123.0	3178.7	3161.6	3122.5	3166.5
59°	2958.2	2972.9	2982.2	2688.2	2704.3	2766.1	2845.6	2923.5	2889.0	2940.7	3018.5
60°	2729.9	2714.3	2721.1	2504.1	2496.2	2557.5	2606.4	2695.5	2671.5	2698.8	2825.6
61°	2517.6	2488.9	2489.6	2338.9	2303.1	2366.4	2402.1	2502.3	2450.1	2496.9	2593.2
62°	2320.9	2282.0	2289.5	2150.3	2113.6	2183.3	2227.8	2317.7	2278.1	2318.5	2386.0
63°	2135.9	2134.2	2122.5	1948.0	1936.2	2003.3	2052.7	2150.1	2102.5	2134.5	2200.1
64°	1979.1	1972.2	1975.9	1787.7	1772.7	1830.0	1880.7	1970.3	1933.6	1955.3	2047.8
65°	1822.7	1802.9	1793.9	1663.3	1643.5	1692.7	1739.4	1821.8	1779.1	1798.3	1896.5
66°	1694.1	1641.5	1651.2	1541.4	1537.0	1567.7	1605.6	1678.2	1631.7	1654.7	1738.3
67°	1557.8	1518.9	1525.0	1425.7	1410.2	1441.2	1477.8	1558.2	1514.9	1540.7	1586.6
68°	1434.2	1402.7	1424.2	1302.8	1283.3	1313.0	1350.0	1419.4	1396.8	1413.2	1462.6
69°	1331.8	1286.6	1311.8	1188.3	1169.4	1202.4	1243.1	1299.6	1278.8	1285.5	1351.3
70°	1234.0	1174.7	1189.2	1102.7	1083.4	1110.7	1148.1	1189.1	1165.2	1189.3	1256.1
71°	1128.0	1077.6	1082.5	1016.0	995.4	1018.5	1047.9	1096.3	1073.1	1092.0	1153.7
72°	1034.0	996.1	997.6	925.9	903.8	928.1	958.9	1008.4	991.3	1000.9	1055.5
73°	948.2	910.4	929.2	839.0	818.0	839.7	879.0	926.7	908.8	910.7	967.0
74°	871.8	826.1	845.9	761.7	740.5	760.6	805.5	840.3	823.6	827.2	888.4
75°	791.1	753.9	758.6	692.3	675.2	689.9	728.1	764.0	748.8	750.6	817.7
76°	720.2	684.7	685.9	633.1	611.1	623.1	667.9	690.7	682.7	686.0	739.9
77°	651.5	619.3	625.2	572.6	551.2	557.0	599.7	628.6	619.3	623.0	670.4
78°	588.2	558.3	564.5	512.8	493.4	498.2	537.7	566.6	559.9	565.9	607.7
79°	530.9	501.1	509.1	458.9	441.4	446.9	483.5	511.8	500.6	508.6	553.1
80°	475.6	451.4	456.4	409.8	390.3	399.6	430.7	457.8	447.5	460.6	497.0
81°	422.9	399.8	405.2	364.8	345.7	353.2	385.1	408.3	401.0	414.2	447.2
82°	379.5	355.7	359.9	320.6	304.0	311.9	336.9	361.1	357.2	373.8	402.6
83°	335.6	311.5	317.3	276.5	265.0	270.6	296.2	318.3	314.2	330.1	356.8
84°	291.1	271.2	274.7	243.4	234.2	237.4	259.5	275.5	275.2	290.2	314.3
85°	254.9	240.0	242.7	218.0	210.6	212.6	230.3	243.7	243.3	254.2	271.8
86°	227.4	216.0	218.1	196.8	191.5	192.9	207.8	218.2	217.7	226.9	240.4
87°	205.0	196.0	197.3	179.7	175.9	176.7	189.4	197.7	197.5	204.4	215.2
88°	186.3	179.1	179.7	165.0	166.2	162.9	173.2	180.6	180.4	186.1	195.0
89°	170.2	164.8	164.8	157.1	156.4	155.5	164.3	166.2	166.4	170.4	178.2



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CATALOG NUMBER: UHBS-30-MV-L840-U-CDL-277V

CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
90°	159.7	157.4	157.7	151.8	152.2	151.5	155.4	159.2	159.3	157.3	164.1

TEST NUMBER: P601069
CATALOG NUMBER: UHBS-30-MV-L840-U-CDL-277V

CANDELA DISTRIBUTION (continued):

	330°	360°
0°	9052.6	9052.6
1°	8916.2	8979.4
2°	8972.6	9063.8
3°	9135.9	8904.6
4°	9052.1	9166.6
5°	8943.7	9067.0
6°	9190.5	9158.8
7°	9157.0	9166.2
8°	9082.6	9199.1
9°	9314.5	9102.6
10°	9180.5	9241.4
11°	9304.1	9233.1
12°	9382.0	9332.4
13°	9441.5	9570.8
14°	9619.5	9642.0
15°	9691.2	9654.8
16°	9807.1	9848.1
17°	9803.4	9740.9
18°	9887.6	9846.8
19°	9979.0	9958.4
20°	10052.5	10007.5
21°	10158.5	9988.2
22°	10019.5	10034.5
23°	10066.5	10128.5
24°	10206.4	10128.5
25°	10112.5	9982.2
26°	10061.5	9955.9
27°	9888.6	9826.5
28°	9760.5	9975.1
29°	9411.7	9674.2
30°	9433.9	9438.6
31°	9196.6	9161.3
32°	9280.2	9292.6
33°	8900.3	8944.0
34°	8912.2	8958.9
35°	8800.8	8938.0
36°	8514.6	8395.0
37°	8429.2	8543.5
38°	8178.6	8338.9
39°	8107.2	8196.6
40°	7884.5	8023.8
41°	7642.2	7802.9
42°	7528.7	7655.2
43°	7227.2	7286.5
44°	7110.9	7260.9

TEST NUMBER: P601069
CATALOG NUMBER: UHBS-30-MV-L840-U-CDL-277V

CANDELA DISTRIBUTION (continued):

	330°	360°
45°	6879.4	7012.0
46°	6770.8	6921.1
47°	6601.4	6626.8
48°	6350.0	6425.0
49°	6117.0	6190.7
50°	5970.4	5977.6
51°	5702.8	5757.4
52°	5299.7	5274.4
53°	4825.5	4942.5
54°	4453.3	4455.3
55°	3924.2	3927.2
56°	3535.8	3552.7
57°	3291.5	3352.6
58°	3165.1	3152.4
59°	3002.1	2958.2
60°	2743.9	2729.9
61°	2532.8	2517.6
62°	2339.8	2320.9
63°	2164.7	2135.9
64°	2022.7	1979.1
65°	1875.0	1822.7
66°	1730.4	1694.1
67°	1587.8	1557.8
68°	1471.8	1434.2
69°	1355.9	1331.8
70°	1256.7	1234.0
71°	1158.0	1128.0
72°	1055.8	1034.0
73°	974.7	948.2
74°	893.2	871.8
75°	819.3	791.1
76°	748.1	720.2
77°	673.7	651.5
78°	609.4	588.2
79°	547.6	530.9
80°	492.4	475.6
81°	441.9	422.9
82°	395.6	379.5
83°	351.1	335.6
84°	306.8	291.1
85°	268.5	254.9
86°	238.2	227.4
87°	213.7	205.0
88°	193.4	186.3
89°	175.9	170.2



TEST NUMBER: P601069
CATALOG NUMBER: UHBS-30-MV-L840-U-CDL-277V

CANDELA DISTRIBUTION (continued):

	330°	360°
90°	162.7	159.7

(END OF REPORT)