

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: P601064

Luminaire Tested: UHBS-30-MV-L850-U-CDL-120V

Issue Date: 8/28/2023

Test Information

Test Method: LM-79-2019
Report Number: P601064
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-120V
Description: UHB Round Select with Clear Reflector with Lens Cover at 120V 30000 LUMEN SETTING AND 5000K
Light Source: -
Ballast/Driver: Electrical Driver

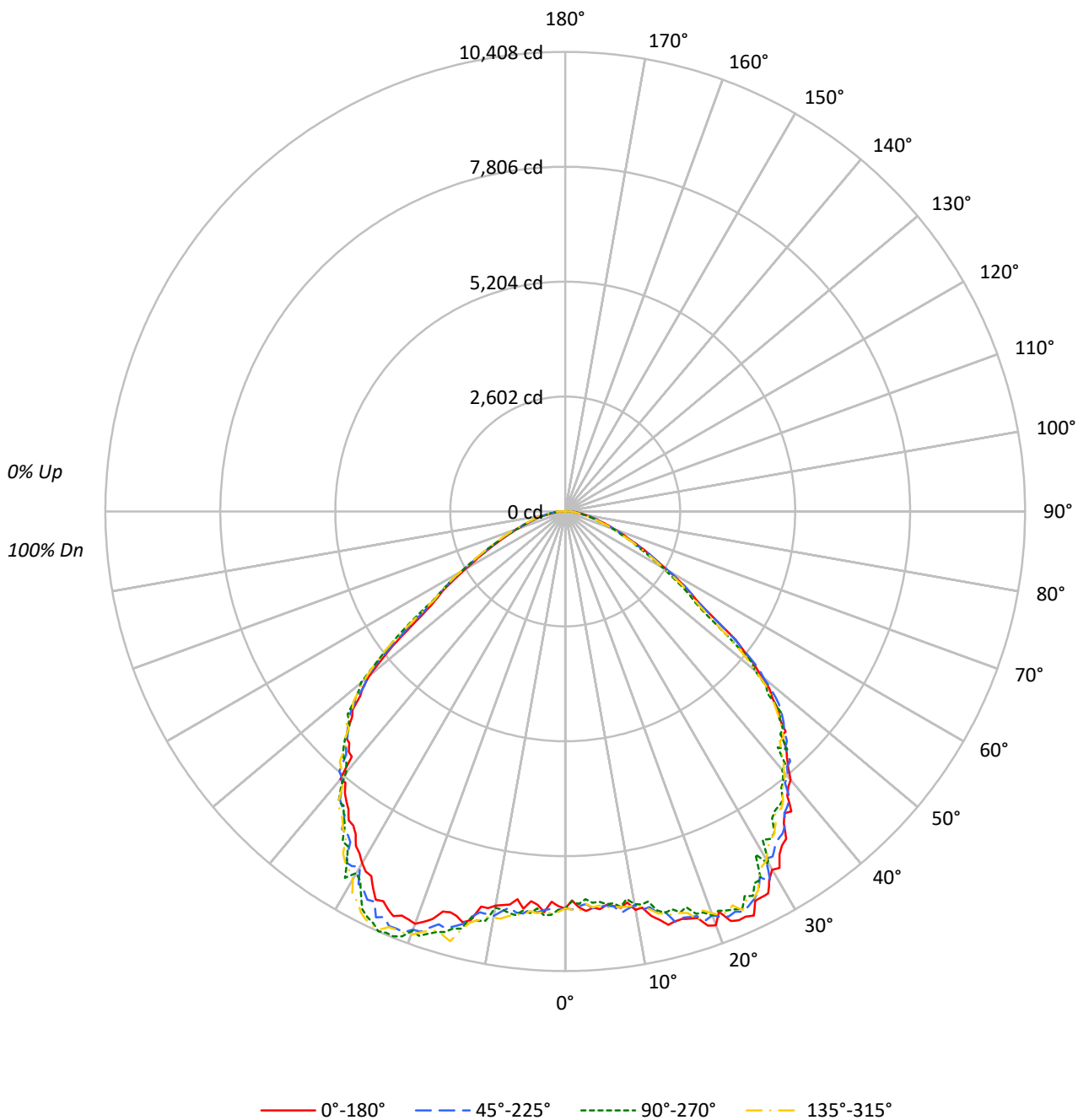
Summary

Lumens per Lamp: 25367 (1 lamp)
Luminaire Lumens: 25367.0 lumens
Efficiency: 100.0%
Efficacy: 211.6 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): 119.9
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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CATALOG NUMBER: UHBS-30-MV-L850-U-CDL-120V

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°	69652	69652	69652	69652
5°	70335	69025	68898	70988
10°	72079	71024	71285	71681
15°	77043	74802	76081	78397
20°	82242	80226	81913	83284
25°	86317	82190	83283	87942
30°	83822	82470	82258	84585
35°	81582	78255	80814	82210
40°	80268	77347	80083	77987
45°	77337	76313	76241	75607
50°	69883	67541	69763	72677
55°	52482	48555	49963	54538
60°	41691	39633	40378	42063
65°	33566	31378	31802	33182
70°	27406	25666	26051	26851
75°	23316	21613	21972	22724
80°	21104	18833	19083	20520
85°	22562	19930	20446	22348

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 330°
 Vertical Angle: 89°
 Luminance: 78533 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	865.8	3.4	3.4
10°-20°	2724.6	10.7	10.7
20°-30°	4547.8	17.9	17.9
30°-40°	5384.1	21.2	21.2
40°-50°	5334.4	21.0	21.0
50°-60°	3595.2	14.2	14.2
60°-70°	1811.0	7.1	7.1
70°-80°	816.2	3.2	3.2
80°-90°	287.8	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°	8138.3	32.1	32.1
0°-40°	13522.4	53.3	53.3
0°-60°	22452.0	88.5	88.5
0°-90°	25367.0	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°	25367.0	100.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	8990	8990	8990	8990	8990	
5°	9044	8875	8859	9128	9044	861
15°	9605	9326	9485	9774	9605	2723
25°	10097	9614	9742	10287	10097	4554
35°	8626	8274	8544	8692	8626	5441
45°	7058	6965	6958	6900	7058	5343
55°	3885	3595	3699	4038	3885	3645
65°	1831	1712	1735	1810	1831	1843
75°	779	722	734	759	779	847
85°	254	224	230	251	254	303
90°	160	153	158	159	160	



TEST NUMBER: P601064
 CATALOG NUMBER: UHBS-30-MV-L850-U-CDL-120V

CANDELA DISTRIBUTION (FULL):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
0°	8989.9	8989.9	8989.9	8989.9	8989.9	8989.9	8989.9	8989.9	8989.9	8989.9	8989.9
1°	8811.6	9088.3	8939.7	8826.1	9107.9	8936.9	8941.5	9027.3	9018.8	9023.8	9071.6
2°	8972.9	8918.2	8975.2	8893.6	9040.1	9071.2	8841.1	9011.9	8996.3	9137.4	9156.9
3°	9060.7	9037.9	8763.6	8793.3	8956.3	8835.6	9086.8	8936.6	9136.4	9158.2	9177.0
4°	8994.1	9069.3	8948.2	8883.4	8913.4	9064.8	8928.1	9105.2	9102.9	9013.7	9221.5
5°	9043.5	9033.0	8942.3	8875.1	8938.5	8976.7	8858.8	9044.0	9045.0	9127.5	9094.3
6°	8957.6	8999.8	8948.7	8941.3	9075.4	8983.8	9045.2	9115.7	9190.3	9087.4	9166.0
7°	9003.1	9027.2	8996.9	8938.1	8999.6	9019.7	8845.7	9023.8	9272.8	9206.4	9216.8
8°	9064.8	9255.0	9104.2	9042.4	9065.9	9033.2	8989.4	9008.9	9103.9	9179.8	9253.1
9°	8966.0	9241.6	8978.1	8882.0	9051.8	9066.9	9024.3	9140.0	9191.5	9127.5	9163.8
10°	9161.8	9002.3	9100.4	9027.7	9005.9	9093.6	9060.9	9308.1	9289.4	9111.2	9462.9
11°	9138.4	9315.5	9045.0	9067.2	9049.3	9216.3	9149.6	9236.6	9342.1	9442.5	9326.3
12°	9361.8	9265.5	9060.5	9030.3	9191.6	9241.5	9147.6	9308.2	9254.9	9479.6	9479.1
13°	9490.5	9458.2	9197.9	9276.3	9416.6	9275.3	9494.9	9310.5	9525.3	9433.8	9589.5
14°	9648.2	9422.2	9269.3	9366.4	9318.7	9454.5	9589.9	9642.8	9616.4	9739.4	9771.5
15°	9605.0	9716.4	9533.4	9325.7	9481.5	9446.4	9485.1	9744.5	9712.3	9773.9	10182.1
16°	9602.3	9640.7	9511.1	9445.7	9436.7	9476.0	9441.3	9781.3	9858.1	9906.7	10027.1
17°	9644.6	9681.6	9528.5	9369.7	9411.9	9603.4	9476.1	9746.3	9805.5	9957.0	9944.0
18°	9677.9	9735.4	9537.9	9583.3	9703.4	9774.9	9700.8	9862.0	9954.8	10058.1	9962.8
19°	9919.5	9830.5	9746.7	9608.2	9538.5	9574.5	9829.7	9893.3	10243.1	10165.1	10086.1
20°	9974.8	9802.4	9665.0	9730.2	9694.1	9668.8	9934.8	9920.8	10239.1	10101.1	10237.1
21°	9707.5	9914.0	9762.8	9684.3	9766.0	9800.6	9899.5	10221.1	10198.1	10304.1	10302.1
22°	10003.1	9956.3	9826.1	9747.7	9788.2	9786.3	9868.9	10028.1	10352.1	10378.1	10245.1
23°	10059.1	9796.7	9900.7	9789.8	9689.3	9695.1	9955.3	10112.1	10295.1	10365.1	10216.1
24°	10045.1	9976.8	9864.2	9850.0	9883.6	9879.4	9861.6	9971.7	10138.1	10408.1	10438.1
25°	10097.1	9892.1	9799.4	9614.3	9702.7	9705.9	9742.1	10101.1	10179.1	10287.1	10409.1
26°	9812.7	9934.9	9587.7	9685.1	9682.9	9810.0	9784.2	9750.4	9923.4	10218.1	10355.1
27°	9803.2	9797.5	9472.3	9444.8	9554.4	9682.7	9581.1	9730.0	10003.1	10114.1	10276.1
28°	9791.9	9514.1	9249.3	9430.6	9475.7	9224.0	9352.6	9608.0	9816.9	9837.7	10119.1
29°	9531.9	9723.0	9436.6	8878.3	9031.4	9338.9	9319.3	9789.9	9505.7	9570.4	10161.1
30°	9369.4	9004.9	9154.8	9218.3	9230.7	9006.6	9194.6	9352.9	9219.8	9454.7	9519.8
31°	9414.8	9272.2	8965.9	8672.1	8802.1	8979.9	9038.0	9371.2	9373.2	9678.0	9468.8
32°	9154.0	8812.1	9105.5	8748.0	8747.7	8799.2	8935.3	9355.9	9380.9	9305.7	9545.9
33°	9014.8	9021.9	8679.8	8690.3	8657.5	8722.6	8712.5	8940.6	8916.4	9038.9	9235.7
34°	8945.0	8812.1	8786.0	8377.9	8496.4	8533.1	8578.7	8876.8	8747.2	9008.9	8869.3
35°	8625.5	8714.5	8632.4	8273.7	8268.2	8299.4	8544.2	8853.0	8778.8	8691.8	8813.5
36°	8446.7	8552.2	8336.8	8238.9	8424.8	8219.9	8342.3	8433.4	8559.8	8524.1	8582.8
37°	8505.2	8417.5	8299.6	8190.8	8212.7	8174.1	8226.0	8448.3	8313.9	8337.3	8564.4
38°	8166.2	8318.9	8183.0	7943.7	7903.2	8036.5	8096.2	8415.5	8145.6	8330.4	8337.2
39°	8025.4	7873.9	7937.0	7850.0	7894.1	7894.4	7901.7	8033.3	8013.5	8071.3	8089.7
40°	7936.3	7845.4	7837.7	7647.5	7698.9	7699.0	7918.0	7916.0	7819.0	7710.8	7872.6
41°	7696.2	7703.4	7598.6	7598.1	7539.6	7523.4	7359.4	7811.2	7777.6	7547.3	7739.3
42°	7501.6	7582.8	7642.7	7187.0	7276.1	7379.9	7323.1	7534.7	7274.6	7498.7	7663.2
43°	7335.5	7306.1	7299.4	7369.1	7077.2	7159.0	7169.0	7319.6	7231.1	7364.4	7231.2
44°	7040.5	7271.7	7176.6	7004.7	7154.7	7074.9	7125.0	7152.3	7029.1	7177.6	7221.6



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CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
45°	7058.2	7045.2	6954.4	6964.8	6811.1	7048.3	6958.2	7006.9	6915.1	6900.3	6966.5
46°	6739.7	6797.4	6952.3	6738.9	6804.2	6658.6	6702.3	6933.7	6733.2	6810.1	6955.2
47°	6601.0	6664.5	6724.0	6691.9	6488.9	6538.6	6581.5	6692.2	6561.8	6729.7	6578.5
48°	6310.5	6500.1	6514.6	6164.7	6249.9	6305.7	6237.7	6361.8	6323.9	6433.5	6548.7
49°	6128.5	6129.0	6282.2	6029.7	6046.8	5997.5	6063.1	6132.6	5907.2	6191.6	6194.1
50°	5797.8	5818.7	5923.1	5603.5	5642.7	5661.2	5787.8	5926.6	5759.8	6029.6	5954.2
51°	5502.3	5535.4	5665.9	5439.7	5250.9	5317.3	5368.5	5593.7	5470.7	5602.1	5608.9
52°	5142.0	5155.3	5213.1	4912.1	4810.6	4902.5	4971.9	5152.0	4963.0	5232.8	5327.3
53°	4828.1	4866.1	4723.7	4371.1	4346.8	4461.2	4473.0	4668.5	4578.9	4853.1	4866.7
54°	4298.6	4328.3	4304.1	3899.2	3922.7	4047.3	4025.8	4230.7	4155.6	4461.8	4404.3
55°	3885.3	3873.4	3847.6	3594.6	3617.2	3739.8	3698.8	3842.0	3778.9	4037.5	3929.1
56°	3578.2	3602.1	3548.8	3414.8	3418.7	3516.2	3478.4	3597.9	3513.3	3603.7	3559.4
57°	3371.8	3397.8	3376.2	3191.8	3231.4	3318.1	3312.6	3404.0	3331.0	3371.4	3371.9
58°	3165.4	3203.2	3203.2	2968.7	3022.5	3120.1	3066.0	3209.3	3114.1	3176.5	3184.3
59°	2945.6	2940.2	2969.5	2748.2	2772.8	2865.3	2823.1	2962.1	2900.4	2965.5	2998.1
60°	2690.5	2703.5	2715.2	2557.7	2527.5	2617.5	2605.8	2725.1	2659.7	2714.5	2726.2
61°	2474.0	2507.3	2477.8	2361.7	2361.4	2428.4	2392.7	2524.9	2457.2	2511.0	2519.0
62°	2306.6	2316.8	2300.2	2155.8	2187.1	2226.1	2232.3	2318.8	2281.2	2335.1	2325.1
63°	2138.7	2153.0	2146.2	2003.2	2017.6	2043.8	2046.9	2130.8	2079.9	2139.9	2150.9
64°	1992.2	1958.8	1957.4	1838.0	1848.4	1898.9	1890.6	1975.9	1933.7	1967.9	1987.5
65°	1830.9	1781.4	1786.0	1711.6	1706.4	1773.0	1734.7	1828.2	1780.3	1810.0	1842.8
66°	1681.6	1645.1	1644.5	1578.0	1570.3	1620.6	1611.2	1700.9	1640.2	1672.6	1702.1
67°	1544.1	1528.8	1533.8	1449.3	1440.3	1468.8	1474.5	1562.2	1507.4	1536.6	1576.9
68°	1427.1	1407.9	1415.4	1332.0	1310.3	1342.3	1367.4	1428.4	1386.6	1406.4	1465.6
69°	1316.1	1286.9	1289.7	1237.5	1199.5	1230.6	1251.2	1308.9	1266.0	1276.2	1346.2
70°	1209.8	1177.9	1194.2	1133.0	1109.1	1130.3	1150.0	1206.0	1164.0	1185.3	1232.6
71°	1114.0	1090.2	1099.5	1035.1	1031.2	1049.8	1050.9	1112.8	1062.8	1099.6	1129.4
72°	1024.2	998.7	1005.3	949.5	940.3	956.8	964.4	1023.9	971.9	1011.0	1035.5
73°	944.8	912.3	926.2	872.8	852.9	864.4	876.2	931.7	895.2	915.2	951.2
74°	862.7	832.1	840.7	795.2	768.8	781.9	805.2	842.5	812.6	830.0	869.3
75°	778.9	759.8	763.1	722.0	695.8	711.3	734.0	761.5	741.1	759.1	792.7
76°	708.9	685.4	690.5	649.9	633.6	645.7	667.5	691.7	667.9	688.5	726.4
77°	646.1	615.2	626.1	591.4	569.8	581.1	600.9	629.1	603.2	630.7	663.2
78°	587.5	558.6	567.1	529.7	509.2	520.7	538.2	567.0	542.1	572.9	603.2
79°	529.8	497.3	509.1	471.7	451.7	465.9	480.4	509.8	487.7	514.7	547.2
80°	473.0	445.4	458.2	422.1	404.5	412.9	427.7	454.8	437.4	459.9	492.1
81°	423.2	399.6	409.7	374.7	359.9	365.0	382.1	405.7	392.7	411.2	439.2
82°	378.0	355.2	360.7	330.4	315.9	320.7	335.0	359.5	347.8	368.6	389.0
83°	332.8	310.4	317.5	287.5	273.8	276.4	292.8	318.0	306.7	326.5	342.4
84°	288.8	271.0	274.3	251.9	241.8	243.7	257.6	276.6	268.8	285.6	302.0
85°	253.8	241.2	242.9	224.2	217.1	219.2	230.0	245.7	239.5	251.4	261.8
86°	226.9	217.4	218.4	202.1	196.9	199.1	208.2	220.4	215.8	225.0	232.4
87°	204.6	197.3	197.9	184.3	180.5	183.0	190.3	199.9	196.4	203.1	209.2
88°	185.8	180.7	181.5	168.9	166.8	168.4	174.7	182.9	179.5	185.6	190.1
89°	170.2	166.7	167.2	159.1	158.5	160.4	163.7	168.7	166.4	170.3	174.4



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CANDELA DISTRIBUTION (continued):

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
90°	160.0	159.0	159.6	153.2	154.1	156.2	157.8	162.1	160.1	158.6	162.3



TEST NUMBER: P601064
 CATALOG NUMBER: UHBS-30-MV-L850-U-CDL-120V

CANDELA DISTRIBUTION (continued):

	330°	360°
0°	8989.9	8989.9
1°	9076.0	8811.6
2°	9052.8	8972.9
3°	8986.7	9060.7
4°	9023.1	8994.1
5°	9072.3	9043.5
6°	9208.2	8957.6
7°	9172.1	9003.1
8°	9249.2	9064.8
9°	9507.8	8966.0
10°	9213.0	9161.8
11°	9388.0	9138.4
12°	9450.4	9361.8
13°	9508.4	9490.5
14°	9779.4	9648.2
15°	9968.5	9605.0
16°	9960.4	9602.3
17°	9919.1	9644.6
18°	9999.2	9677.9
19°	10080.1	9919.5
20°	10178.1	9974.8
21°	10138.1	9707.5
22°	10180.1	10003.1
23°	10234.1	10059.1
24°	10300.1	10045.1
25°	10280.1	10097.1
26°	10220.1	9812.7
27°	10101.1	9803.2
28°	9898.4	9791.9
29°	9733.0	9531.9
30°	9695.6	9369.4
31°	9504.3	9414.8
32°	9238.2	9154.0
33°	9228.4	9014.8
34°	8848.1	8945.0
35°	8730.8	8625.5
36°	8582.7	8446.7
37°	8403.2	8505.2
38°	8327.2	8166.2
39°	7924.7	8025.4
40°	7753.9	7936.3
41°	7703.4	7696.2
42°	7588.9	7501.6
43°	7332.0	7335.5
44°	7145.1	7040.5

TEST NUMBER: P601064
CATALOG NUMBER: UHBS-30-MV-L850-U-CDL-120V

CANDELA DISTRIBUTION (continued):

	330°	360°
45°	6893.9	7058.2
46°	6819.8	6739.7
47°	6601.4	6601.0
48°	6350.4	6310.5
49°	6209.2	6128.5
50°	5927.5	5797.8
51°	5573.4	5502.3
52°	5185.5	5142.0
53°	4810.4	4828.1
54°	4382.1	4298.6
55°	3912.4	3885.3
56°	3578.7	3578.2
57°	3350.3	3371.8
58°	3170.3	3165.4
59°	2991.9	2945.6
60°	2748.5	2690.5
61°	2550.1	2474.0
62°	2357.8	2306.6
63°	2199.4	2138.7
64°	2025.7	1992.2
65°	1879.1	1830.9
66°	1733.0	1681.6
67°	1594.0	1544.1
68°	1481.0	1427.1
69°	1368.1	1316.1
70°	1261.8	1209.8
71°	1153.3	1114.0
72°	1056.3	1024.2
73°	967.9	944.8
74°	884.5	862.7
75°	804.1	778.9
76°	730.2	708.9
77°	667.8	646.1
78°	606.5	587.5
79°	550.3	529.8
80°	490.8	473.0
81°	437.5	423.2
82°	391.3	378.0
83°	343.9	332.8
84°	303.0	288.8
85°	265.3	253.8
86°	236.8	226.9
87°	213.2	204.6
88°	193.7	185.8
89°	176.9	170.2



TEST NUMBER: P601064
CATALOG NUMBER: UHBS-30-MV-L850-U-CDL-120V

CANDELA DISTRIBUTION (continued):

	330°	360°
90°	164.7	160.0

(END OF REPORT)