

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P333408-830

Luminaire Tested: **S125DIW-S850D770U830-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333408-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-7,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DIW-S850D770U830-4F0-1E-UDD-D
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 770 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5987.6 lumens
Efficiency: N/A
Efficacy: 133.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')
CIE Type: General Diffuse

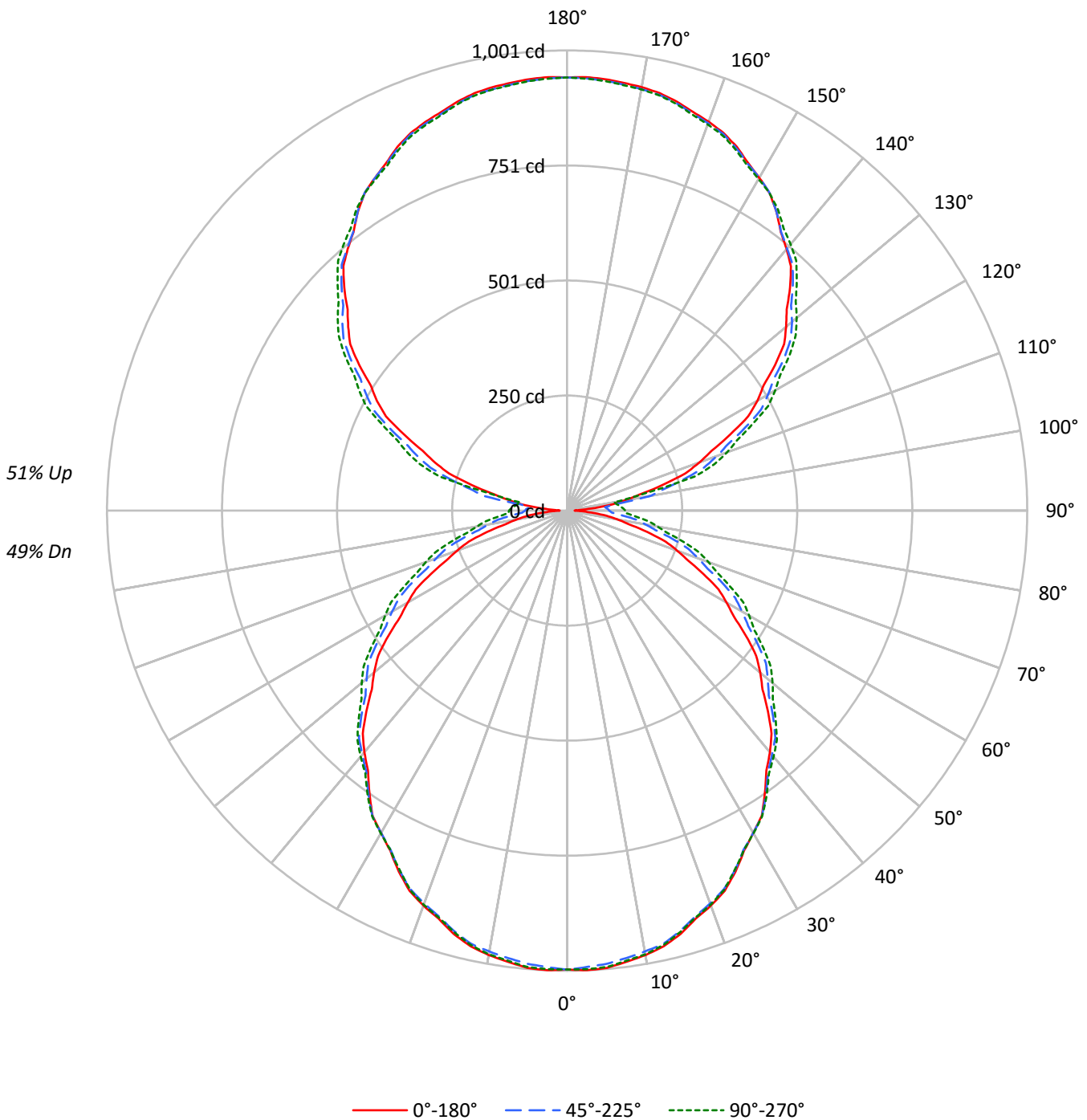
Input Watts (W): 45
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	107	107	107	107	98	98	98	98	83	83	83	68	68	68	55	55	55	49
1	97	92	88	84	89	85	81	78	71	69	66	59	57	55	47	46	45	39
2	88	80	74	68	80	74	68	63	62	58	54	51	48	46	41	39	37	32
3	80	70	62	56	73	65	58	53	54	49	45	45	41	38	36	34	31	27
4	73	62	54	48	67	57	50	44	48	43	38	40	36	33	32	29	27	23
5	67	55	47	41	61	51	43	38	43	37	33	36	31	28	29	26	23	20
6	62	49	41	35	56	46	38	33	39	33	29	32	28	24	26	23	20	17
7	57	44	36	31	52	41	34	29	35	29	25	29	25	22	24	21	18	15
8	53	40	32	27	48	37	30	25	32	26	22	27	22	19	22	19	16	14
9	49	37	29	24	45	34	27	23	29	24	20	25	20	17	20	17	15	12
10	46	34	26	21	42	31	25	20	27	22	18	23	18	16	19	16	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6448	6448	6448
5°	6461	6330	6350
10°	6415	6216	6207
15°	6340	6081	6026
20°	6237	5914	5845
25°	6114	5735	5621
30°	5965	5538	5419
35°	5827	5357	5233
40°	5686	5166	5046
45°	5526	5003	4880
50°	5375	4826	4733
55°	5192	4659	4561
60°	4992	4468	4385
65°	4783	4270	4187
70°	4546	3997	3985
75°	4170	3735	3735
80°	3682	3416	3463
85°	3220	3204	3378



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.4	1.6
10°-20°	268.0	4.5
20°-30°	398.6	6.7
30°-40°	472.1	7.9
40°-50°	488.1	8.2
50°-60°	449.7	7.5
60°-70°	363.5	6.1
70°-80°	243.4	4.1
80°-90°	128.2	2.1
90°-100°	105.1	1.8
100°-110°	263.2	4.4
110°-120°	417.7	7.0
120°-130°	511.0	8.5
130°-140°	536.9	9.0
140°-150°	497.6	8.3
150°-160°	401.1	6.7
160°-170°	259.4	4.3
170°-180°	89.5	1.5
0°-30°	761.0	12.7
0°-40°	1233.2	20.6
0°-60°	2171.0	36.3
0°-90°	2906.1	48.5
90°-120°	786.0	13.1
90°-150°	2331.5	38.9
90°-180°	3082.0	51.5
0°-180°	5987.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	998	998	998	998	998	
5°	998	996	990	997	997	95
15°	954	954	948	953	950	268
25°	866	869	863	867	862	399
35°	750	756	754	757	757	469
45°	618	628	633	640	641	477
55°	475	490	506	516	521	424
65°	327	349	373	387	392	324
75°	180	206	237	256	261	191
85°	54	86	120	141	150	57
90°	16	53	91	116	126	12
95°	52	75	83	107	114	61
105°	214	233	262	281	288	227
115°	391	403	428	442	444	388
125°	552	557	576	588	591	493
135°	686	689	694	705	706	528
145°	794	794	794	799	799	496
155°	873	869	870	872	867	402
165°	921	917	918	921	916	260
175°	942	938	939	944	938	90
180°	942	942	942	942	942	



TEST NUMBER: P333408-830

CATALOG NUMBER: S125DIW-S850D770U830-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	998.4	998.4	998.4	998.4	998.4	998.4	998.4	998.4	998.4	998.4	998.4
2.5°	1000.8	1000.5	1000.1	999.8	999.4	998.6	997.4	996.2	994.9	993.7	994.9
5°	998.4	998.1	997.6	997.1	996.7	995.7	994.2	992.7	991.2	989.7	991.4
7.5°	989.7	989.5	989.3	989.1	988.9	988.1	986.6	985.0	983.4	981.8	983.4
10°	981.8	981.8	981.8	981.8	981.8	981.0	979.2	977.5	975.7	974.0	975.5
12.5°	970.8	971.0	971.2	971.4	971.6	970.9	969.6	968.2	966.8	965.4	966.6
15°	953.5	953.7	953.9	954.0	954.3	953.7	952.2	950.6	949.0	947.5	948.9
17.5°	930.8	931.1	931.6	932.0	932.5	931.9	930.4	928.9	927.4	925.9	926.8
20°	914.3	914.7	915.1	915.6	916.1	915.5	914.0	912.5	910.9	909.4	910.0
22.5°	895.5	896.3	897.0	897.9	898.6	898.1	896.5	894.8	893.1	891.4	892.2
25°	866.3	867.0	867.6	868.3	868.9	868.6	867.3	866.0	864.7	863.4	864.2
27.5°	833.8	834.8	835.8	836.7	837.6	837.4	835.9	834.4	832.9	831.5	832.1
30°	809.5	810.9	812.2	813.4	814.7	814.7	813.4	812.2	810.9	809.5	810.0
32.5°	787.6	788.7	789.9	791.0	792.1	792.2	791.3	790.3	789.4	788.4	788.8
35°	749.8	751.4	752.9	754.4	755.9	756.4	755.7	755.1	754.4	753.8	754.4
37.5°	712.0	713.4	714.8	716.2	717.7	718.2	717.9	717.7	717.6	717.4	718.2
40°	686.2	688.0	689.7	691.4	693.1	693.9	693.7	693.5	693.2	693.1	693.9
42.5°	658.0	660.3	662.5	664.8	667.0	668.5	668.9	669.4	669.9	670.3	671.4
45°	617.6	620.1	622.5	624.8	627.3	629.0	630.1	631.1	632.3	633.3	634.9
47.5°	576.4	578.6	580.8	583.1	585.2	587.3	589.2	591.1	592.9	594.7	597.0
50°	548.2	550.5	553.0	555.3	557.7	560.2	562.5	565.0	567.3	569.7	572.1
52.5°	518.4	521.3	524.2	527.2	530.1	533.0	535.9	538.9	541.8	544.7	547.2
55°	474.8	478.2	481.7	485.2	488.7	492.2	495.7	499.2	502.6	506.1	508.5
57.5°	430.1	434.3	438.5	442.6	446.9	450.9	455.0	458.9	462.9	466.9	469.7
60°	400.4	404.7	409.1	413.4	417.7	422.2	426.5	430.8	435.2	439.5	442.8
62.5°	371.4	375.7	380.1	384.5	388.8	393.3	398.0	402.7	407.4	412.1	415.8
65°	327.0	332.0	337.0	342.0	346.9	352.0	357.3	362.5	367.8	373.0	376.3
67.5°	285.0	289.9	294.7	299.5	304.3	309.4	314.7	320.1	325.4	330.6	334.6
70°	254.5	259.5	264.5	269.6	274.6	279.8	285.5	291.2	296.8	302.5	306.6
72.5°	224.8	229.9	235.1	240.3	245.4	251.1	257.3	263.5	269.7	275.9	280.3
75°	180.1	185.8	191.4	197.1	202.7	209.1	216.0	223.0	229.9	236.9	241.2
77.5°	137.2	143.7	150.3	156.8	163.3	169.9	176.6	183.3	190.0	196.8	201.5
80°	110.7	117.2	123.7	130.2	136.8	143.6	151.1	158.4	165.9	173.2	178.0
82.5°	86.3	93.2	100.1	107.0	113.9	121.0	128.7	136.2	143.7	151.4	156.0
85°	53.8	61.0	68.2	75.4	82.6	89.9	97.6	105.2	112.8	120.4	125.2
87.5°	30.7	37.9	45.1	52.3	59.5	66.9	74.6	82.2	89.7	97.4	102.5
90°	16.4	24.6	32.8	41.0	49.2	57.5	66.0	74.5	82.9	91.4	97.2
92.5°	24.9	30.4	36.0	41.6	47.1	54.2	62.7	71.3	79.7	88.3	93.9
95°	52.5	57.7	62.9	68.1	73.3	76.6	78.1	79.6	81.2	82.7	88.2
97.5°	94.6	100.6	106.5	112.4	118.4	119.0	114.5	110.0	105.5	100.9	101.1
100°	127.4	132.4	137.4	142.5	147.5	153.8	161.5	169.0	176.6	184.2	165.6
102.5°	160.7	165.5	170.3	175.1	179.9	186.0	193.1	200.2	207.4	214.5	214.6
105°	214.1	218.2	222.3	226.4	230.5	235.8	242.4	248.9	255.4	261.9	266.3
107.5°	269.7	272.6	275.6	278.5	281.5	286.3	292.8	299.4	306.0	312.5	316.9
110°	305.8	308.4	310.9	313.6	316.2	320.7	327.2	333.5	339.9	346.3	350.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	340.4	342.9	345.3	347.8	350.2	354.5	360.6	366.7	372.9	378.9	382.3
115°	391.3	393.7	396.0	398.3	400.6	404.6	410.5	416.2	422.1	427.9	431.2
117.5°	444.2	445.2	446.1	447.0	448.1	451.5	457.4	463.4	469.3	475.3	478.2
120°	477.7	478.2	478.7	479.2	479.7	482.7	488.1	493.6	499.1	504.5	507.9
122.5°	506.5	507.5	508.3	509.3	510.1	513.1	518.1	523.2	528.2	533.3	536.5
125°	552.1	553.0	553.9	554.8	555.6	558.3	562.6	566.9	571.3	575.6	578.5
127.5°	594.9	595.4	596.0	596.5	597.1	599.2	602.7	606.1	609.5	613.0	616.0
130°	621.7	622.3	622.8	623.4	624.0	625.8	629.1	632.3	635.5	638.7	641.2
132.5°	647.7	648.6	649.4	650.4	651.2	652.6	654.6	656.6	658.6	660.6	663.5
135°	685.7	686.4	687.1	687.9	688.5	689.5	690.7	691.9	693.1	694.4	696.8
137.5°	720.6	721.1	721.8	722.5	723.1	723.6	724.1	724.5	725.0	725.5	728.1
140°	742.6	743.0	743.3	743.6	743.9	744.1	744.1	744.2	744.3	744.3	747.1
142.5°	763.4	763.4	763.4	763.4	763.4	763.6	763.7	764.0	764.3	764.6	766.7
145°	793.6	793.7	793.8	793.9	794.0	794.1	794.1	794.1	794.1	794.1	795.3
147.5°	819.3	819.2	819.1	819.1	819.0	819.1	819.3	819.4	819.5	819.7	820.3
150°	835.9	835.7	835.4	835.0	834.7	834.7	835.0	835.4	835.7	835.9	836.3
152.5°	852.2	851.5	850.8	850.2	849.4	849.2	849.6	849.9	850.2	850.5	850.8
155°	873.0	872.0	871.1	870.2	869.3	868.9	869.3	869.6	869.9	870.2	870.6
157.5°	889.0	888.5	888.0	887.4	886.8	886.6	886.6	886.6	886.6	886.6	887.2
160°	900.2	899.3	898.3	897.4	896.5	896.1	896.3	896.5	896.5	896.7	897.4
162.5°	909.2	908.2	907.3	906.3	905.4	905.0	905.2	905.4	905.5	905.7	906.5
165°	921.1	920.2	919.4	918.4	917.5	917.1	917.2	917.4	917.6	917.7	918.6
167.5°	930.1	929.2	928.2	927.3	926.2	925.9	926.0	926.1	926.3	926.5	927.6
170°	935.2	934.1	932.9	931.9	930.8	930.3	930.5	930.7	930.8	930.9	932.2
172.5°	938.5	937.5	936.3	935.2	934.2	933.8	934.1	934.3	934.6	934.9	935.9
175°	942.2	941.2	940.3	939.3	938.4	938.0	938.2	938.3	938.5	938.7	939.9
177.5°	943.8	943.0	942.4	941.6	940.8	940.5	940.7	940.8	940.8	941.0	941.9
180°	942.2	942.2	942.2	942.2	942.2	942.2	942.2	942.2	942.2	942.2	942.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	998.4	998.4	998.4	998.4	998.4	998.4	998.4	998.4
2.5°	996.2	997.4	998.6	999.2	999.0	998.8	998.6	998.4
5°	993.2	994.9	996.6	997.4	997.1	996.9	996.7	996.6
7.5°	984.9	986.4	987.9	988.5	988.4	988.2	987.9	987.7
10°	977.0	978.5	980.1	980.7	980.5	980.3	980.1	979.9
12.5°	967.7	968.9	970.1	970.3	969.8	969.2	968.7	968.1
15°	950.2	951.5	952.8	953.0	952.2	951.2	950.4	949.5
17.5°	927.8	928.9	929.8	930.1	929.5	929.1	928.5	928.0
20°	910.7	911.3	912.0	912.3	912.3	912.3	912.3	912.3
22.5°	893.1	893.8	894.7	894.8	894.3	893.8	893.2	892.8
25°	865.2	866.0	866.9	866.8	865.6	864.6	863.5	862.4
27.5°	832.6	833.3	833.9	834.1	833.6	833.2	832.8	832.5
30°	810.4	810.9	811.2	811.4	811.2	811.0	810.8	810.5
32.5°	789.3	789.7	790.1	790.2	790.0	789.9	789.6	789.4
35°	755.1	755.7	756.4	756.7	756.7	756.7	756.7	756.7
37.5°	719.1	719.9	720.8	721.2	721.1	721.0	721.0	720.9
40°	694.7	695.7	696.5	697.2	697.6	698.0	698.5	698.9
42.5°	672.4	673.4	674.5	675.0	675.1	675.2	675.3	675.4
45°	636.4	637.9	639.4	640.3	640.6	640.7	640.9	641.2
47.5°	599.2	601.4	603.6	605.0	605.5	606.0	606.4	606.9
50°	574.5	576.9	579.3	580.8	581.5	582.1	582.8	583.4
52.5°	549.8	552.3	554.9	556.5	556.9	557.4	557.9	558.4
55°	510.9	513.3	515.7	517.3	518.1	519.1	519.9	520.8
57.5°	472.4	475.1	477.9	479.6	480.2	480.9	481.5	482.2
60°	446.0	449.3	452.6	454.5	455.2	455.8	456.5	457.1
62.5°	419.3	422.9	426.6	428.8	429.6	430.5	431.2	432.1
65°	379.5	382.8	386.0	388.0	389.0	389.8	390.7	391.5
67.5°	338.6	342.5	346.5	349.0	350.2	351.3	352.4	353.5
70°	310.8	314.9	319.1	321.7	323.0	324.3	325.6	327.0
72.5°	284.8	289.3	293.8	296.5	297.5	298.4	299.4	300.3
75°	245.6	250.0	254.3	257.0	258.1	259.2	260.2	261.4
77.5°	206.3	211.1	215.9	218.8	219.6	220.5	221.3	222.3
80°	182.9	187.7	192.4	195.2	196.1	197.0	197.8	198.7
82.5°	160.5	165.1	169.8	172.9	174.5	176.0	177.6	179.2
85°	130.0	134.8	139.6	142.8	144.6	146.3	148.1	149.8
87.5°	107.7	112.8	118.0	121.4	123.0	124.6	126.2	127.9
90°	103.0	108.8	114.5	118.5	120.5	122.4	124.4	126.4
92.5°	99.5	105.1	110.7	114.4	116.1	117.9	119.6	121.4
95°	93.8	99.3	104.9	108.4	109.9	111.5	113.0	114.5
97.5°	101.3	101.5	101.7	102.5	104.0	105.5	107.0	108.5
100°	147.0	128.5	109.9	101.0	101.7	102.4	103.0	103.8
102.5°	214.6	214.6	214.6	210.0	200.8	191.5	182.3	173.1
105°	270.7	275.0	279.4	282.2	283.6	284.9	286.3	287.7
107.5°	321.2	325.6	329.9	332.5	333.4	334.3	335.2	336.1
110°	353.6	357.3	361.0	363.6	365.3	367.0	368.7	370.3



TEST NUMBER: P333408-830

CATALOG NUMBER: S125DIW-S850D770U830-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	385.7	389.1	392.4	394.7	396.1	397.4	398.7	400.0
115°	434.5	437.7	441.0	442.9	443.3	443.7	444.0	444.4
117.5°	481.1	484.0	486.8	488.8	489.9	491.0	492.0	493.1
120°	511.3	514.7	518.1	520.1	520.6	521.1	521.6	522.2
122.5°	539.7	542.9	546.1	547.9	548.4	548.7	549.1	549.6
125°	581.4	584.2	587.1	588.8	589.5	590.0	590.7	591.4
127.5°	618.8	621.7	624.5	626.0	626.1	626.3	626.4	626.5
130°	643.8	646.4	648.9	650.4	650.7	651.0	651.3	651.7
132.5°	666.6	669.5	672.4	674.0	674.1	674.3	674.4	674.6
135°	699.4	701.9	704.5	705.8	705.9	706.1	706.2	706.3
137.5°	730.8	733.4	735.9	737.4	737.4	737.4	737.5	737.5
140°	749.8	752.4	755.2	756.5	756.4	756.4	756.3	756.2
142.5°	768.7	770.9	773.0	774.0	773.9	773.9	773.8	773.7
145°	796.5	797.8	799.1	799.7	799.6	799.5	799.5	799.4
147.5°	820.9	821.3	821.9	821.8	821.0	820.4	819.6	818.9
150°	836.6	836.9	837.3	836.9	835.8	834.8	833.8	832.7
152.5°	851.1	851.4	851.8	851.4	850.3	849.2	848.1	847.1
155°	871.1	871.6	872.0	871.7	870.4	869.2	868.0	866.7
157.5°	887.7	888.2	888.6	888.3	887.0	885.8	884.6	883.4
160°	898.0	898.6	899.2	898.9	897.7	896.5	895.2	893.9
162.5°	907.4	908.2	909.2	908.9	907.6	906.2	904.8	903.4
165°	919.5	920.5	921.4	921.2	920.0	918.8	917.6	916.2
167.5°	928.7	929.8	930.9	930.9	929.4	928.0	926.6	925.2
170°	933.4	934.7	935.9	935.9	934.4	933.0	931.6	930.3
172.5°	937.1	938.2	939.3	939.1	937.8	936.4	935.0	933.6
175°	941.1	942.4	943.6	943.5	942.2	940.8	939.3	937.9
177.5°	942.7	943.6	944.5	944.4	943.4	942.4	941.4	940.5
180°	942.2	942.2	942.2	942.2	942.2	942.2	942.2	942.2

(END OF REPORT)