

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: P333421-830

Luminaire Tested: **S125DIW-S850D1340U830-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333421-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DIW-S850D1340U830-4F0-1E-UDD-D1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1340 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7480.0 lumens
Efficiency: N/A
Efficacy: 121.8 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: Semi-Indirect

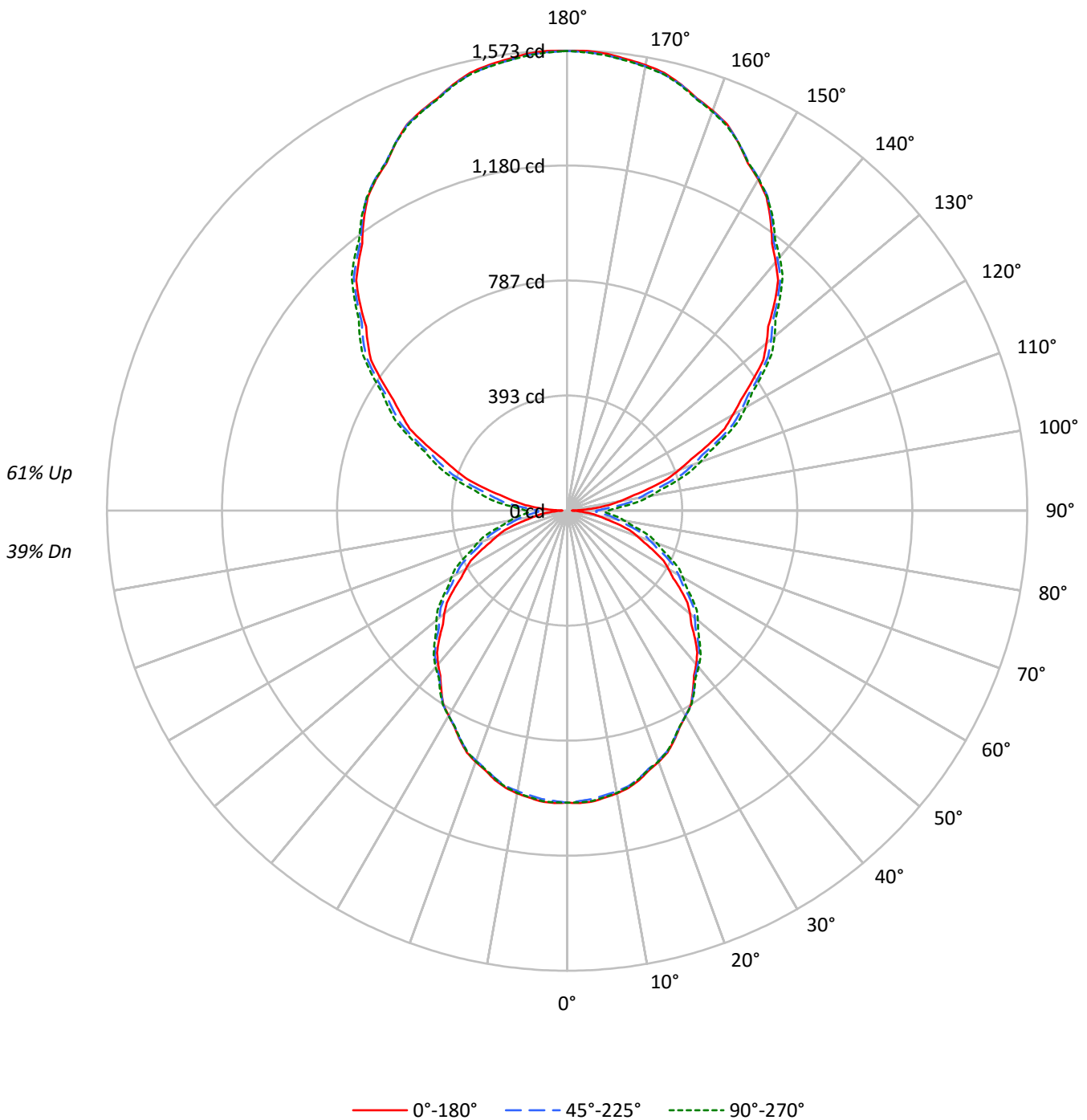
Input Watts (W): 61.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	104	104	104	104	95	95	95	95	77	77	77	61	61	61	46	46	46	39
1	95	90	86	83	86	82	79	75	67	64	62	53	51	49	40	39	38	32
2	86	78	72	67	78	71	66	61	58	54	51	46	43	41	35	33	31	26
3	78	69	61	55	71	63	56	51	51	46	42	40	37	34	30	28	26	22
4	71	61	53	47	65	55	48	43	45	40	36	36	32	29	27	25	22	18
5	65	54	46	40	59	49	42	37	40	35	31	32	28	25	24	22	19	16
6	60	48	40	34	54	44	37	32	36	31	27	29	25	22	22	19	17	14
7	56	43	35	30	50	40	33	28	33	27	23	26	22	19	20	17	15	12
8	52	39	32	26	47	36	29	24	30	24	21	24	20	17	18	16	13	11
9	48	36	28	23	43	33	26	22	27	22	18	22	18	15	17	14	12	10
10	45	33	26	21	41	30	24	19	25	20	17	20	16	14	16	13	11	9

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	1.3
10°-20°	268.0	3.6
20°-30°	398.6	5.3
30°-40°	472.1	6.3
40°-50°	488.1	6.5
50°-60°	449.7	6.0
60°-70°	363.5	4.9
70°-80°	243.4	3.3
80°-90°	129.7	1.7
90°-100°	176.1	2.4
100°-110°	363.0	4.9
110°-120°	561.3	7.5
120°-130°	712.5	9.5
130°-140°	784.8	10.5
140°-150°	762.4	10.2
150°-160°	638.9	8.5
160°-170°	424.7	5.7
170°-180°	148.6	2.0
0°-30°	761.0	10.2
0°-40°	1233.2	16.5
0°-60°	2171.0	29.0
0°-90°	2907.6	38.9
90°-120°	1100.4	14.7
90°-150°	3360.2	44.9
90°-180°	4572.0	61.1
0°-180°	7480.0	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°	17	58	100	127	139	15
95°	92	121	166	195	205	95
105°	288	310	346	372	384	307
115°	533	546	572	588	594	527
125°	773	780	800	813	817	692
135°	1002	1009	1016	1029	1029	772
145°	1213	1216	1220	1225	1225	758
155°	1386	1387	1388	1392	1386	638
165°	1508	1505	1506	1510	1504	425
175°	1567	1563	1562	1569	1561	149
180°	1571	1571	1571	1571	1571	



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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°	30.8	38.2	45.6	53.0	60.3	68.0	75.7	83.5	91.2	99.1	104.3
90°	16.9	26.0	35.2	44.3	53.4	62.7	71.9	81.2	90.6	99.8	106.2
92.5°	43.6	51.7	59.6	67.6	75.5	84.5	94.3	104.2	114.1	124.0	130.7
95°	92.2	98.4	104.6	110.7	117.0	125.2	135.3	145.3	155.5	165.6	172.3
97.5°	143.5	148.9	154.2	159.5	164.9	173.0	183.8	194.7	205.6	216.5	222.8
100°	181.9	186.5	191.1	195.7	200.2	207.7	218.2	228.8	239.2	249.7	256.7
102.5°	223.2	228.5	233.8	239.1	244.4	251.4	260.0	268.5	277.1	285.7	292.8
105°	287.6	292.4	297.3	302.1	306.9	313.4	321.6	329.7	337.9	346.0	352.0
107.5°	358.7	363.1	367.4	371.7	376.1	381.9	389.5	397.0	404.5	412.0	417.2
110°	407.8	411.9	415.8	419.8	423.8	429.2	436.1	443.0	449.9	456.9	461.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	458.7	461.6	464.3	467.1	470.0	474.8	481.7	488.7	495.6	502.6	506.9
115°	532.8	535.5	538.0	540.6	543.3	547.7	553.8	560.1	566.3	572.5	576.1
117.5°	607.2	608.7	610.1	611.6	613.1	616.8	622.6	628.5	634.3	640.2	644.0
120°	654.1	656.1	658.2	660.2	662.1	665.8	671.1	676.4	681.6	686.9	690.6
122.5°	704.2	705.0	705.8	706.5	707.4	710.5	716.0	721.6	727.2	732.6	735.9
125°	773.0	774.4	775.8	777.2	778.6	781.7	786.3	790.9	795.5	800.1	803.0
127.5°	845.4	846.0	846.8	847.4	848.2	850.5	854.3	858.3	862.1	866.0	868.9
130°	889.4	890.5	891.6	892.8	893.9	896.3	899.8	903.4	907.0	910.6	913.4
132.5°	932.6	934.7	937.0	939.1	941.3	943.5	945.7	948.0	950.3	952.5	955.3
135°	1002.1	1003.5	1004.9	1006.4	1007.8	1009.4	1011.2	1013.0	1014.7	1016.5	1019.4
137.5°	1067.4	1068.8	1070.3	1071.6	1073.0	1074.4	1075.7	1077.0	1078.4	1079.8	1082.6
140°	1108.7	1110.0	1111.4	1112.8	1114.1	1115.3	1116.3	1117.4	1118.4	1119.5	1122.4
142.5°	1150.8	1151.7	1152.6	1153.7	1154.6	1155.7	1156.7	1157.8	1158.9	1159.9	1162.3
145°	1212.6	1213.4	1214.4	1215.2	1216.1	1216.9	1217.8	1218.5	1219.4	1220.2	1221.3
147.5°	1268.9	1269.4	1270.1	1270.6	1271.2	1271.9	1272.5	1273.2	1273.8	1274.5	1275.4
150°	1307.0	1306.7	1306.5	1306.2	1305.9	1306.3	1307.4	1308.5	1309.6	1310.7	1310.7
152.5°	1338.3	1338.7	1339.1	1339.4	1339.8	1340.2	1340.7	1341.0	1341.5	1342.0	1342.7
155°	1386.5	1386.5	1386.5	1386.5	1386.5	1386.6	1386.9	1387.1	1387.4	1387.7	1388.7
157.5°	1429.5	1428.9	1428.3	1427.7	1427.1	1426.9	1427.2	1427.5	1427.8	1428.0	1429.1
160°	1454.9	1454.2	1453.3	1452.5	1451.7	1451.4	1451.7	1452.0	1452.2	1452.5	1453.6
162.5°	1477.4	1476.9	1476.2	1475.6	1475.1	1474.8	1474.8	1474.9	1474.9	1475.0	1476.3
165°	1507.5	1506.9	1506.4	1505.9	1505.3	1505.2	1505.4	1505.7	1506.0	1506.3	1507.4
167.5°	1533.0	1531.8	1530.8	1529.7	1528.6	1528.0	1528.0	1528.0	1528.0	1528.0	1529.7
170°	1546.6	1545.6	1544.5	1543.4	1542.3	1541.7	1541.7	1541.7	1541.7	1541.7	1543.4
172.5°	1556.4	1555.3	1554.3	1553.1	1552.1	1551.5	1551.5	1551.5	1551.5	1551.5	1553.1
175°	1567.4	1566.3	1565.3	1564.1	1563.1	1562.5	1562.5	1562.5	1562.5	1562.5	1564.1
177.5°	1573.0	1572.2	1571.3	1570.5	1569.5	1569.1	1568.8	1568.6	1568.4	1568.1	1569.4
180°	1571.1	1571.1	1571.1	1571.1	1571.1	1571.1	1571.1	1571.1	1571.1	1571.1	1571.1



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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°	109.6	114.9	120.2	123.7	125.4	127.1	128.7	130.4
90°	112.5	118.9	125.3	129.6	132.0	134.3	136.7	139.0
92.5°	137.3	143.9	150.6	155.0	157.0	159.2	161.3	163.4
95°	179.0	185.7	192.4	196.7	198.8	200.9	202.9	205.0
97.5°	229.2	235.5	242.0	246.0	247.8	249.6	251.4	253.2
100°	263.7	270.8	277.8	282.2	284.1	285.9	287.8	289.5
102.5°	299.8	306.9	314.0	318.5	320.6	322.6	324.7	326.8
105°	358.0	364.0	369.9	374.1	376.5	378.8	381.2	383.5
107.5°	422.3	427.3	432.5	435.7	437.0	438.3	439.6	440.9
110°	466.7	471.6	476.6	479.7	481.0	482.2	483.4	484.7



TEST NUMBER: P333421-830

CATALOG NUMBER: S125DIW-S850D1340U830-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	511.2	515.6	519.9	522.6	523.7	524.7	525.8	526.8
115°	579.8	583.4	587.0	589.4	590.4	591.4	592.5	593.5
117.5°	648.0	651.9	655.8	658.0	658.4	658.7	659.1	659.5
120°	694.3	698.0	701.7	703.6	703.9	704.1	704.3	704.6
122.5°	739.3	742.6	745.9	747.8	748.2	748.7	749.0	749.5
125°	806.0	808.9	811.8	813.7	814.5	815.4	816.1	817.0
127.5°	871.9	874.9	877.8	879.7	880.3	881.1	881.8	882.5
130°	916.2	919.0	921.7	923.4	923.9	924.4	925.0	925.6
132.5°	958.0	960.8	963.6	965.1	965.2	965.4	965.5	965.6
135°	1022.2	1025.0	1027.8	1029.3	1029.3	1029.3	1029.3	1029.3
137.5°	1085.5	1088.4	1091.3	1092.5	1092.0	1091.6	1091.1	1090.5
140°	1125.3	1128.2	1131.1	1132.4	1131.9	1131.4	1131.0	1130.5
142.5°	1164.7	1167.1	1169.4	1170.4	1169.9	1169.4	1168.9	1168.4
145°	1222.4	1223.4	1224.6	1225.1	1225.1	1225.2	1225.3	1225.3
147.5°	1276.5	1277.4	1278.5	1278.3	1276.8	1275.4	1273.8	1272.4
150°	1310.7	1310.7	1310.7	1310.5	1310.1	1309.9	1309.5	1309.2
152.5°	1343.2	1343.9	1344.5	1344.4	1343.5	1342.6	1341.6	1340.7
155°	1389.9	1390.9	1392.0	1391.9	1390.5	1389.2	1387.8	1386.5
157.5°	1430.2	1431.3	1432.4	1432.0	1430.2	1428.4	1426.6	1424.8
160°	1454.6	1455.8	1456.8	1456.7	1455.4	1454.0	1452.6	1451.2
162.5°	1477.6	1478.8	1480.2	1480.1	1478.5	1476.9	1475.4	1473.8
165°	1508.4	1509.6	1510.6	1510.3	1508.7	1507.1	1505.4	1503.8
167.5°	1531.3	1533.0	1534.6	1534.6	1532.9	1531.2	1529.5	1527.8
170°	1545.0	1546.6	1548.2	1548.1	1546.2	1544.4	1542.4	1540.5
172.5°	1554.8	1556.4	1558.0	1558.0	1556.3	1554.6	1552.9	1551.2
175°	1565.8	1567.4	1569.1	1568.9	1567.0	1565.1	1563.2	1561.3
177.5°	1570.7	1572.1	1573.4	1573.3	1571.7	1570.2	1568.7	1567.2
180°	1571.1	1571.1	1571.1	1571.1	1571.1	1571.1	1571.1	1571.1

(END OF REPORT)