

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: P333414-830

Luminaire Tested: **S125DIW-S850D1050U830-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333414-830
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-S850D1050U830-4F0-1E-UDD-D
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1050 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7044.2 lumens
Efficiency: N/A
Efficacy: 133.9 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

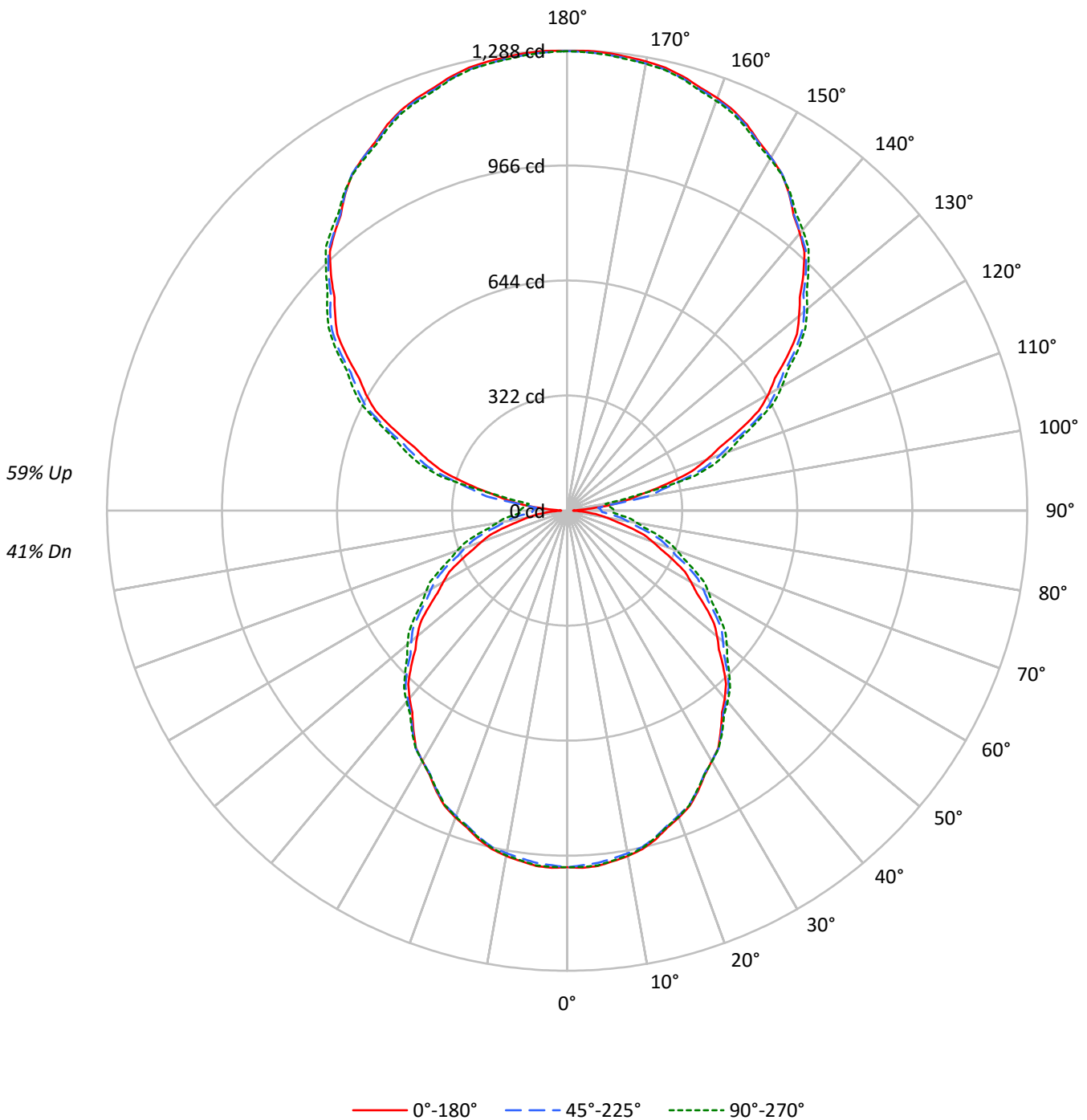
Input Watts (W): 52.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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CATALOG NUMBER: S125DIW-S850D1050U830-4F0-1E-UDD-D

Luminous Intensity Polar Plot





TEST NUMBER: P333414-830

CATALOG NUMBER: S125DIW-S850D1050U830-4F0-1E-UDD-D

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	105	105	105	105	96	96	96	96	78	78	78	63	63	63	48	48	48	41
1	95	91	87	83	87	83	79	76	68	65	63	54	52	51	42	40	39	33
2	86	79	73	67	78	72	67	62	59	55	52	47	44	42	36	34	33	28
3	79	69	62	56	71	63	57	51	52	47	43	41	38	35	32	30	28	23
4	72	61	53	47	65	56	49	43	46	41	37	37	33	30	28	26	24	20
5	66	54	46	40	60	50	42	37	41	36	31	33	29	26	25	23	20	17
6	61	48	40	34	55	44	37	32	37	31	27	30	26	22	23	20	18	15
7	56	44	36	30	51	40	33	28	33	28	24	27	23	20	21	18	16	13
8	52	40	32	26	47	36	29	25	30	25	21	25	21	18	19	16	14	12
9	48	36	29	23	44	33	26	22	28	22	19	23	19	16	18	15	13	10
10	45	33	26	21	41	30	24	20	25	20	17	21	17	14	16	14	12	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	3.8
20°-30°	398.6	5.7
30°-40°	472.1	6.7
40°-50°	488.1	6.9
50°-60°	449.7	6.4
60°-70°	363.5	5.2
70°-80°	243.4	3.5
80°-90°	128.9	1.8
90°-100°	117.6	1.7
100°-110°	340.2	4.8
110°-120°	557.4	7.9
120°-130°	690.2	9.8
130°-140°	729.7	10.4
140°-150°	678.5	9.6
150°-160°	547.5	7.8
160°-170°	354.1	5.0
170°-180°	122.1	1.7
0°-30°	761.0	10.8
0°-40°	1233.2	17.5
0°-60°	2171.0	30.8
0°-90°	2906.9	41.3
90°-120°	1015.2	14.4
90°-150°	3113.7	44.2
90°-180°	4137.0	58.7
0°-180°	7044.2	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	56	96	122	132	13
95°	67	88	87	112	120	79
105°	289	309	338	357	363	306
115°	532	544	570	583	584	527
125°	752	759	778	789	791	671
135°	935	940	945	955	955	721
145°	1083	1084	1084	1089	1088	677
155°	1192	1186	1188	1190	1183	549
165°	1257	1252	1252	1258	1251	355
175°	1286	1281	1281	1288	1280	122
180°	1286	1286	1286	1286	1286	



TEST NUMBER: P333414-830

CATALOG NUMBER: S125DIW-S850D1050U830-4F0-1E-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	38.1	45.3	52.6	59.9	67.4	75.1	82.8	90.5	98.2	103.4
90°	16.6	25.3	33.9	42.6	51.3	60.0	68.9	77.8	86.6	95.5	101.6
92.5°	28.7	34.0	39.3	44.5	49.8	56.8	65.7	74.6	83.5	92.4	98.3
95°	67.0	72.1	77.1	82.1	87.2	89.4	88.7	88.0	87.4	86.7	92.6
97.5°	125.0	131.2	137.4	143.7	150.0	148.6	139.9	131.0	122.2	113.5	112.1
100°	169.9	175.1	180.4	185.6	190.8	197.3	205.1	212.9	220.7	228.5	201.5
102.5°	215.7	220.7	225.7	230.7	235.8	242.0	249.2	256.6	263.8	271.2	269.6
105°	289.1	293.4	297.7	302.1	306.4	311.8	318.3	324.9	331.4	337.9	342.2
107.5°	365.3	368.3	371.2	374.2	377.1	381.9	388.6	395.3	402.0	408.7	413.0
110°	414.8	417.5	420.1	422.6	425.3	429.9	436.4	442.9	449.4	455.9	459.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	462.1	464.8	467.3	470.0	472.5	476.9	483.1	489.3	495.4	501.6	504.7
115°	532.1	534.6	537.2	539.8	542.4	546.6	552.5	558.4	564.2	570.0	573.2
117.5°	604.5	605.5	606.4	607.4	608.3	611.9	618.0	624.2	630.4	636.5	639.1
120°	650.3	650.7	651.1	651.6	652.1	655.1	660.7	666.4	671.9	677.6	680.9
122.5°	689.8	691.0	692.1	693.2	694.4	697.5	702.6	707.7	712.8	717.9	721.0
125°	752.2	753.5	754.8	756.0	757.3	760.1	764.4	768.8	773.2	777.5	780.1
127.5°	811.0	811.7	812.6	813.4	814.3	816.4	819.8	823.3	826.7	830.2	832.9
130°	847.5	848.4	849.2	850.1	850.9	852.9	856.2	859.4	862.7	866.0	868.4
132.5°	883.4	884.6	885.7	886.9	888.1	889.7	891.6	893.4	895.2	897.1	900.0
135°	935.2	936.2	937.3	938.4	939.4	940.5	941.6	942.7	943.8	944.9	947.3
137.5°	982.9	983.8	984.7	985.6	986.6	987.2	987.6	988.0	988.3	988.6	991.3
140°	1013.3	1013.8	1014.2	1014.6	1015.0	1015.2	1015.2	1015.3	1015.3	1015.3	1018.1
142.5°	1041.6	1041.6	1041.7	1041.8	1041.9	1042.1	1042.5	1042.7	1043.1	1043.5	1045.6
145°	1082.9	1083.2	1083.4	1083.5	1083.7	1083.8	1083.8	1083.8	1083.8	1083.8	1085.1
147.5°	1118.1	1118.1	1118.0	1117.9	1117.9	1117.9	1118.1	1118.4	1118.7	1118.9	1119.6
150°	1141.0	1140.7	1140.2	1139.8	1139.3	1139.3	1139.8	1140.2	1140.7	1141.0	1141.5
152.5°	1163.2	1162.2	1161.3	1160.4	1159.4	1159.2	1159.6	1160.1	1160.5	1160.8	1161.3
155°	1191.6	1190.3	1189.0	1187.8	1186.5	1186.1	1186.5	1186.9	1187.3	1187.8	1188.4
157.5°	1213.5	1212.8	1212.0	1211.3	1210.4	1210.1	1210.1	1210.1	1210.2	1210.2	1211.0
160°	1228.8	1227.5	1226.2	1224.9	1223.7	1223.1	1223.3	1223.6	1223.8	1224.0	1224.8
162.5°	1241.0	1239.7	1238.4	1237.2	1235.9	1235.3	1235.6	1235.8	1236.0	1236.1	1237.4
165°	1257.4	1256.1	1254.8	1253.6	1252.3	1251.7	1252.0	1252.2	1252.4	1252.5	1253.9
167.5°	1269.5	1268.3	1267.0	1265.6	1264.3	1263.8	1263.9	1264.1	1264.4	1264.6	1266.1
170°	1276.4	1275.0	1273.5	1272.0	1270.5	1269.9	1270.1	1270.3	1270.5	1270.7	1272.4
172.5°	1281.0	1279.5	1278.0	1276.6	1275.1	1274.5	1274.9	1275.3	1275.6	1276.0	1277.5
175°	1285.9	1284.7	1283.4	1282.1	1280.8	1280.3	1280.5	1280.7	1281.0	1281.2	1282.9
177.5°	1288.3	1287.2	1286.2	1285.2	1284.2	1283.7	1283.9	1284.1	1284.2	1284.4	1285.6
180°	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9



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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°	108.7	113.9	119.0	122.5	124.1	125.8	127.4	129.1
90°	107.6	113.7	119.8	123.9	126.0	128.2	130.4	132.5
92.5°	104.2	110.1	115.9	119.8	121.6	123.5	125.3	127.1
95°	98.4	104.2	110.1	113.8	115.3	116.8	118.4	119.9
97.5°	110.7	109.2	107.8	107.9	109.3	110.8	112.4	113.8
100°	174.6	147.5	120.6	107.3	107.7	108.2	108.7	109.1
102.5°	268.0	266.4	264.9	257.5	244.4	231.3	218.2	205.1
105°	346.6	351.0	355.3	358.2	359.5	360.8	362.0	363.4
107.5°	417.5	421.8	426.1	428.7	429.3	430.1	430.7	431.5
110°	462.9	466.4	469.9	472.5	474.3	476.0	477.7	479.5



TEST NUMBER: P333414-830

CATALOG NUMBER: S125DIW-S850D1050U830-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	507.9	511.0	514.2	516.4	517.6	518.9	520.1	521.3
115°	576.3	579.3	582.4	583.9	584.0	584.0	584.0	584.1
117.5°	641.7	644.3	646.9	648.7	649.6	650.5	651.5	652.3
120°	684.2	687.4	690.7	692.5	692.7	693.0	693.2	693.4
122.5°	724.2	727.3	730.4	732.0	732.0	732.1	732.2	732.3
125°	782.8	785.4	788.1	789.6	790.0	790.5	790.9	791.4
127.5°	835.7	838.5	841.2	842.4	842.2	841.8	841.5	841.2
130°	870.8	873.2	875.6	876.8	876.8	876.8	876.9	876.9
132.5°	903.0	905.9	908.8	910.2	910.0	909.9	909.7	909.6
135°	949.7	952.1	954.5	955.6	955.5	955.3	955.1	954.9
137.5°	993.9	996.6	999.3	1000.4	1000.2	1000.0	999.8	999.6
140°	1020.9	1023.7	1026.5	1027.7	1027.4	1026.9	1026.5	1026.1
142.5°	1047.7	1049.8	1052.0	1052.8	1052.4	1052.1	1051.6	1051.2
145°	1086.5	1087.8	1089.0	1089.5	1089.1	1088.7	1088.3	1087.9
147.5°	1120.1	1120.8	1121.3	1121.1	1119.9	1118.8	1117.7	1116.5
150°	1141.9	1142.4	1142.7	1142.3	1140.8	1139.3	1137.8	1136.3
152.5°	1161.7	1162.2	1162.5	1162.1	1160.6	1159.0	1157.6	1156.1
155°	1189.0	1189.7	1190.3	1189.8	1188.1	1186.4	1184.7	1183.0
157.5°	1211.6	1212.3	1213.0	1212.5	1210.8	1209.1	1207.4	1205.7
160°	1225.7	1226.5	1227.4	1226.9	1225.3	1223.6	1221.9	1220.2
162.5°	1238.6	1239.7	1241.0	1240.6	1238.7	1236.9	1235.0	1233.1
165°	1255.1	1256.4	1257.6	1257.4	1255.7	1254.1	1252.4	1250.7
167.5°	1267.6	1269.1	1270.7	1270.5	1268.6	1266.7	1264.8	1262.9
170°	1274.1	1275.8	1277.5	1277.3	1275.4	1273.6	1271.7	1269.7
172.5°	1279.1	1280.6	1282.1	1282.0	1280.1	1278.1	1276.2	1274.3
175°	1284.6	1286.3	1288.0	1287.9	1285.9	1284.0	1282.1	1280.3
177.5°	1286.8	1288.0	1289.2	1289.1	1287.7	1286.4	1285.1	1283.6
180°	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9	1285.9

(END OF REPORT)