

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: P333420-830

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333420-830
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-S850D1340U830-4F0-1E-UDD-D
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1340 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8151.4 lumens
Efficiency: N/A
Efficacy: 132.8 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

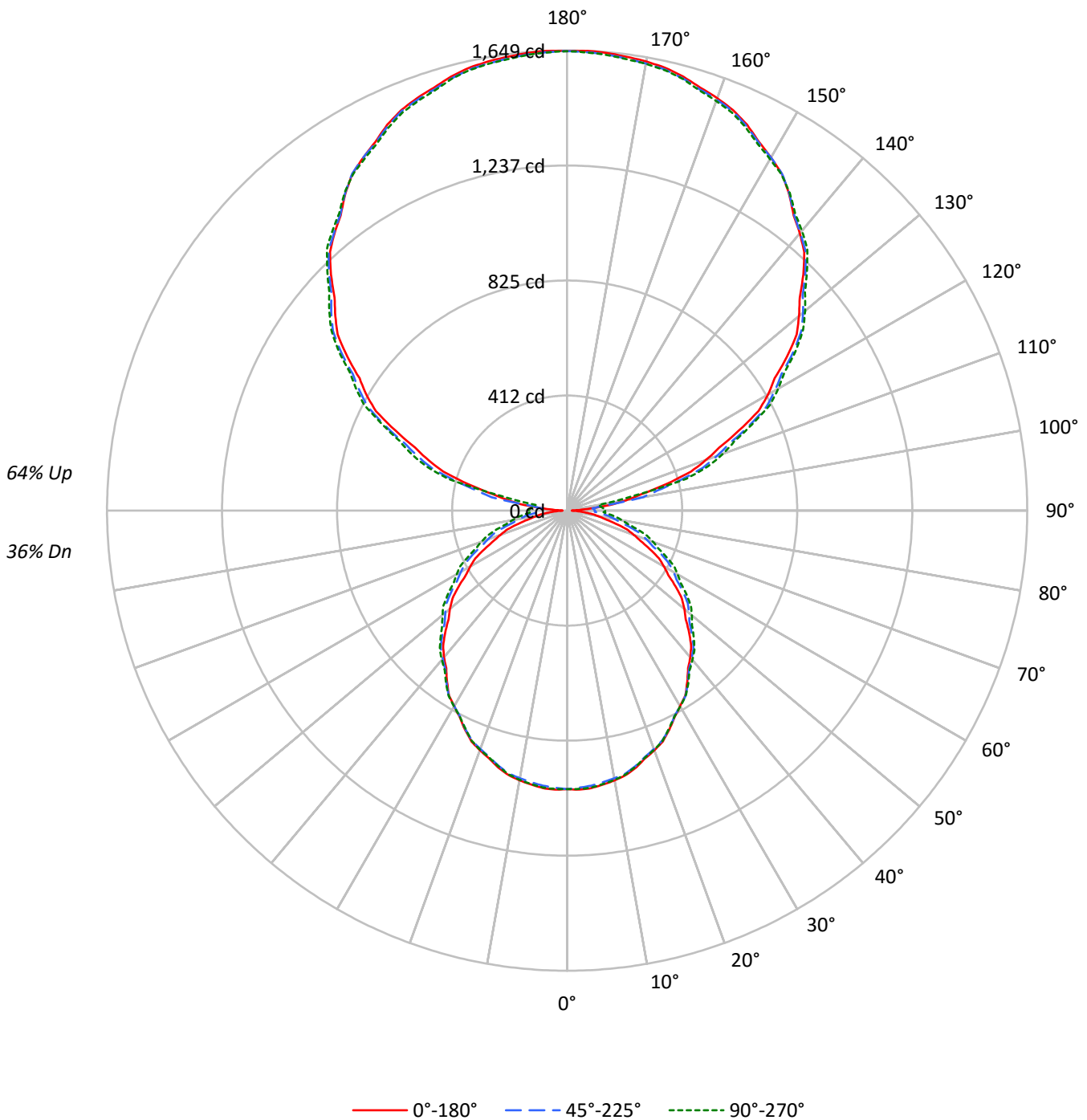
Input Watts (W): 61.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P333420-830

CATALOG NUMBER: S125DIW-S850D1340U830-4F0-1E-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	104	104	104	104	94	94	94	94	75	75	75	58	58	58	43	43	43	36
1	94	90	86	82	85	81	78	75	65	63	61	51	49	48	37	36	35	29
2	85	78	72	66	77	71	65	61	57	53	50	44	41	39	32	31	29	24
3	78	68	61	55	70	62	56	50	50	45	42	39	36	33	28	26	25	20
4	71	60	52	46	64	55	48	43	44	39	35	34	31	28	25	23	21	17
5	65	53	45	39	58	49	42	36	39	34	30	31	27	24	23	20	18	15
6	60	48	40	34	54	43	36	31	35	30	26	28	24	21	21	18	16	13
7	55	43	35	30	50	39	32	27	32	27	23	25	21	18	19	16	14	11
8	51	39	31	26	46	36	29	24	29	24	20	23	19	16	17	15	13	10
9	47	35	28	23	43	32	26	21	27	21	18	21	17	15	16	13	11	9
10	44	32	25	21	40	30	23	19	24	19	16	19	16	13	15	12	10	8

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	1.2
10°-20°	268.0	3.3
20°-30°	398.6	4.9
30°-40°	472.1	5.8
40°-50°	488.1	6.0
50°-60°	449.7	5.5
60°-70°	363.5	4.5
70°-80°	243.4	3.0
80°-90°	129.7	1.6
90°-100°	130.7	1.6
100°-110°	420.9	5.2
110°-120°	703.7	8.6
120°-130°	878.1	10.8
130°-140°	931.7	11.4
140°-150°	868.2	10.7
150°-160°	700.9	8.6
160°-170°	453.3	5.6
170°-180°	156.3	1.9
0°-30°	761.0	9.3
0°-40°	1233.2	15.1
0°-60°	2171.0	26.6
0°-90°	2907.6	35.7
90°-120°	1255.3	15.4
90°-150°	3933.3	48.3
90°-180°	5244.0	64.3
0°-180°	8151.4	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	13
95°	82	102	91	118	126	99
105°	368	389	418	436	443	390
115°	680	693	719	731	730	673
125°	962	970	989	999	1001	859
135°	1197	1203	1207	1217	1215	922
145°	1386	1387	1388	1393	1390	866
155°	1525	1519	1521	1523	1514	703
165°	1610	1603	1604	1610	1601	455
175°	1646	1639	1640	1649	1639	157
180°	1646	1646	1646	1646	1646	



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CATALOG NUMBER: S125DIW-S850D1340U830-4F0-1E-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°	30.8	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	62.6	71.9	81.2	90.5	99.8	106.1
92.5°	32.9	37.8	42.7	47.7	52.6	59.7	68.9	78.1	87.4	96.7	102.8
95°	82.3	87.1	92.0	96.8	101.7	102.6	99.7	96.8	93.9	91.0	97.1
97.5°	156.7	163.3	169.8	176.4	182.9	179.6	166.4	153.2	139.9	126.6	123.6
100°	214.5	220.0	225.4	230.7	236.1	242.8	250.8	258.9	266.9	275.0	239.1
102.5°	273.3	278.6	283.8	289.1	294.4	300.7	308.1	315.6	323.0	330.5	327.2
105°	367.6	372.1	376.7	381.3	385.9	391.4	397.9	404.4	410.9	417.5	421.9
107.5°	465.5	468.4	471.5	474.4	477.3	482.2	489.0	495.9	502.7	509.4	513.8
110°	529.1	531.8	534.4	537.0	539.6	544.2	550.8	557.5	564.1	570.8	574.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	589.7	592.4	595.2	597.9	600.7	605.1	611.4	617.6	623.9	630.1	633.0
115°	679.5	682.4	685.2	688.2	691.0	695.4	701.3	707.3	713.2	719.2	722.0
117.5°	772.5	773.5	774.4	775.3	776.3	780.0	786.4	792.7	799.1	805.5	807.8
120°	831.0	831.4	831.8	832.2	832.6	835.7	841.5	847.3	853.2	858.9	862.1
122.5°	882.0	883.4	884.7	886.1	887.4	890.6	895.9	901.1	906.3	911.4	914.5
125°	961.9	963.6	965.3	967.0	968.7	971.7	976.0	980.3	984.7	989.0	991.5
127.5°	1037.3	1038.5	1039.6	1040.8	1041.9	1044.1	1047.5	1050.9	1054.3	1057.7	1060.4
130°	1084.2	1085.3	1086.5	1087.6	1088.7	1091.0	1094.3	1097.6	1100.9	1104.2	1106.5
132.5°	1130.2	1131.8	1133.3	1134.8	1136.3	1138.0	1139.7	1141.5	1143.3	1145.0	1147.9
135°	1196.7	1198.1	1199.5	1200.9	1202.3	1203.5	1204.5	1205.5	1206.5	1207.4	1209.8
137.5°	1257.7	1259.0	1260.2	1261.5	1262.7	1263.5	1263.7	1263.9	1264.2	1264.4	1267.2
140°	1297.0	1297.5	1298.1	1298.6	1299.2	1299.4	1299.4	1299.3	1299.2	1299.2	1302.1
142.5°	1333.1	1333.2	1333.4	1333.6	1333.7	1334.0	1334.5	1334.8	1335.3	1335.7	1337.8
145°	1386.1	1386.4	1386.8	1387.0	1387.4	1387.5	1387.5	1387.5	1387.5	1387.5	1388.9
147.5°	1431.4	1431.3	1431.3	1431.2	1431.1	1431.2	1431.4	1431.8	1432.1	1432.5	1433.1
150°	1460.8	1460.2	1459.7	1459.2	1458.6	1458.6	1459.2	1459.7	1460.2	1460.8	1461.3
152.5°	1489.0	1487.9	1486.7	1485.5	1484.3	1483.9	1484.5	1485.1	1485.6	1486.1	1486.7
155°	1525.4	1523.8	1522.2	1520.6	1518.9	1518.4	1518.9	1519.5	1520.0	1520.6	1521.4
157.5°	1553.5	1552.6	1551.5	1550.6	1549.6	1549.2	1549.2	1549.3	1549.4	1549.4	1550.2
160°	1573.0	1571.4	1569.8	1568.1	1566.5	1565.8	1566.1	1566.4	1566.7	1567.0	1568.0
162.5°	1588.7	1587.1	1585.4	1583.8	1582.2	1581.5	1581.8	1582.1	1582.2	1582.5	1584.0
165°	1609.7	1608.0	1606.4	1604.8	1603.2	1602.4	1602.7	1603.0	1603.3	1603.5	1605.1
167.5°	1625.2	1623.6	1621.9	1620.2	1618.5	1617.9	1618.1	1618.3	1618.6	1618.9	1620.9
170°	1634.1	1632.2	1630.2	1628.3	1626.5	1625.6	1625.9	1626.2	1626.5	1626.7	1628.9
172.5°	1639.9	1638.0	1636.2	1634.2	1632.3	1631.6	1632.1	1632.6	1633.0	1633.5	1635.5
175°	1646.2	1644.6	1643.0	1641.3	1639.7	1639.1	1639.4	1639.6	1639.9	1640.1	1642.3
177.5°	1649.2	1647.8	1646.6	1645.3	1644.0	1643.4	1643.7	1643.9	1644.1	1644.3	1645.9
180°	1646.2	1646.2	1646.2	1646.2	1646.2	1646.2	1646.2	1646.2	1646.2	1646.2	1646.2



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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°	109.6	114.9	120.2	123.7	125.4	127.0	128.7	130.4
90°	112.5	118.9	125.3	129.6	132.0	134.2	136.6	138.9
92.5°	109.1	115.2	121.4	125.5	127.3	129.2	131.1	133.1
95°	103.3	109.4	115.6	119.4	120.9	122.4	123.9	125.5
97.5°	120.5	117.3	114.3	113.5	115.0	116.4	117.9	119.4
100°	203.3	167.5	131.7	113.9	114.0	114.2	114.5	114.7
102.5°	324.0	320.7	317.4	307.3	290.1	273.0	255.8	238.7
105°	426.2	430.6	434.9	437.7	438.9	440.2	441.5	442.7
107.5°	518.2	522.5	526.9	529.3	529.9	530.5	530.9	531.5
110°	577.4	580.7	584.0	586.6	588.4	590.2	592.0	593.8



TEST NUMBER: P333420-830

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

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	635.9	638.9	641.8	643.9	645.0	646.1	647.2	648.5
115°	724.8	727.6	730.5	731.7	731.4	731.0	730.8	730.5
117.5°	810.0	812.4	814.6	816.1	816.9	817.7	818.5	819.3
120°	865.3	868.5	871.6	873.2	873.1	873.1	873.0	873.0
122.5°	917.5	920.4	923.4	924.7	924.5	924.3	924.0	923.7
125°	993.8	996.3	998.6	999.9	1000.2	1000.5	1000.8	1001.1
127.5°	1063.0	1065.6	1068.3	1069.2	1068.5	1067.7	1067.0	1066.2
130°	1108.7	1110.9	1113.1	1114.1	1113.9	1113.6	1113.3	1113.0
132.5°	1150.8	1153.7	1156.6	1157.7	1157.3	1156.9	1156.4	1156.0
135°	1212.0	1214.3	1216.5	1217.5	1216.9	1216.4	1215.9	1215.3
137.5°	1269.8	1272.4	1275.2	1276.2	1275.6	1275.2	1274.6	1274.0
140°	1305.0	1308.0	1310.9	1312.0	1311.3	1310.5	1309.8	1309.0
142.5°	1340.0	1342.2	1344.3	1345.0	1344.3	1343.5	1342.7	1342.0
145°	1390.3	1391.7	1393.0	1393.3	1392.5	1391.8	1391.0	1390.3
147.5°	1433.8	1434.5	1435.1	1434.7	1433.1	1431.5	1430.0	1428.4
150°	1461.9	1462.4	1462.9	1462.3	1460.3	1458.3	1456.4	1454.4
152.5°	1487.2	1487.8	1488.3	1487.6	1485.7	1483.8	1481.9	1480.0
155°	1522.2	1523.0	1523.8	1523.1	1521.0	1518.8	1516.6	1514.5
157.5°	1551.1	1552.0	1552.8	1552.2	1550.0	1547.8	1545.7	1543.5
160°	1569.1	1570.2	1571.3	1570.7	1568.6	1566.4	1564.2	1562.1
162.5°	1585.5	1587.1	1588.7	1588.2	1585.8	1583.4	1581.0	1578.7
165°	1606.8	1608.4	1610.1	1609.8	1607.6	1605.4	1603.3	1601.1
167.5°	1622.9	1624.8	1626.7	1626.5	1624.0	1621.6	1619.2	1616.7
170°	1631.1	1633.2	1635.4	1635.3	1632.9	1630.4	1628.0	1625.5
172.5°	1637.5	1639.5	1641.3	1641.2	1638.7	1636.3	1633.8	1631.4
175°	1644.5	1646.6	1648.8	1648.7	1646.2	1643.8	1641.3	1638.9
177.5°	1647.4	1648.9	1650.4	1650.3	1648.5	1646.8	1645.0	1643.3
180°	1646.2	1646.2	1646.2	1646.2	1646.2	1646.2	1646.2	1646.2

(END OF REPORT)