

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: P333426-930

Luminaire Tested: **S125DIW-S850D1560U930-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333426-930  
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-S850D1560U930-4F0-1E-UDD-D  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 1560 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7762.7 lumens  
Efficiency: N/A  
Efficacy: 114.0 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.22 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')  
CIE Type: Semi-Indirect

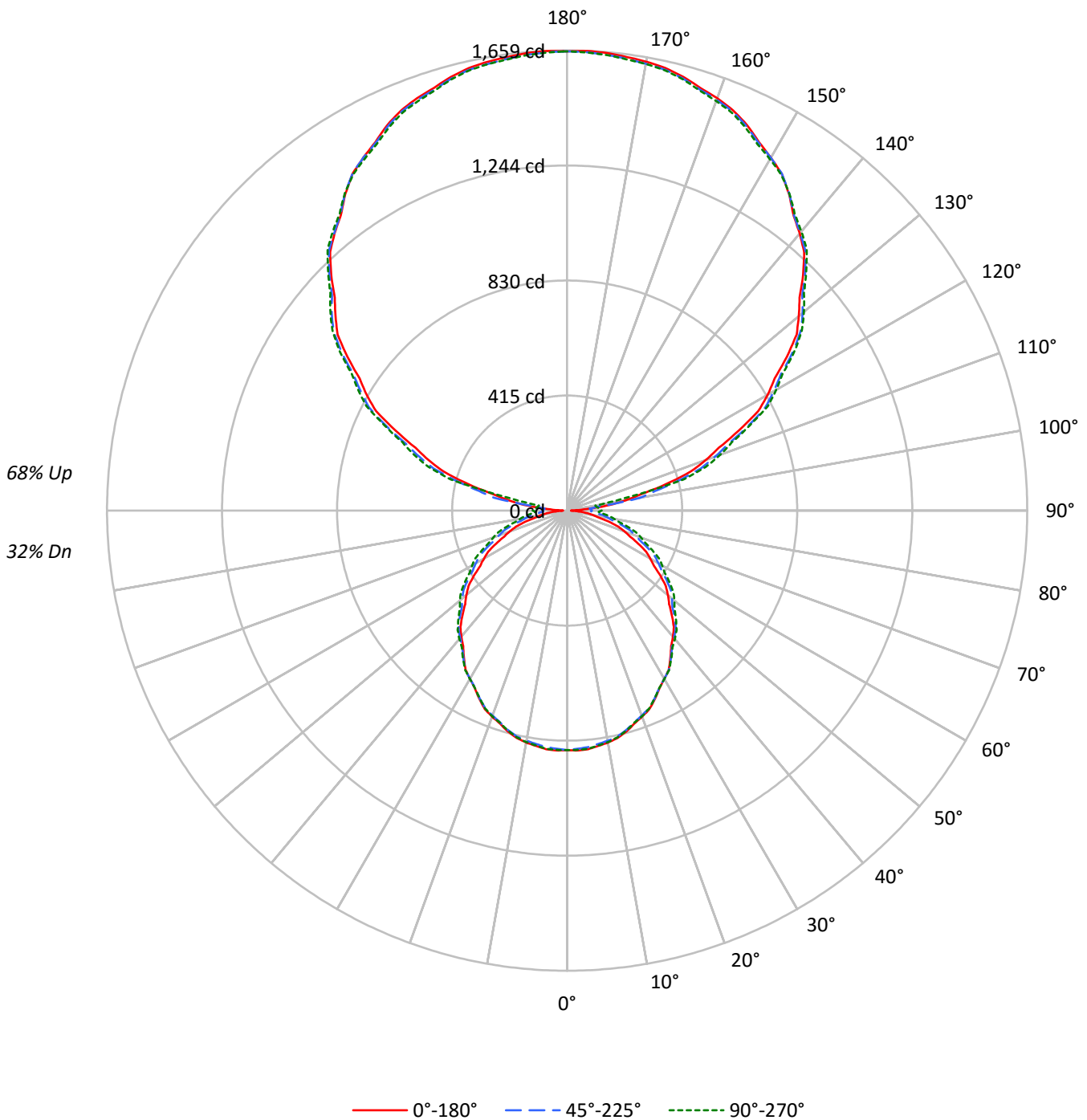
Input Watts (W): 68.1  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333426-930

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### Luminous Intensity Polar Plot





TEST NUMBER: P333426-930

CATALOG NUMBER: S125DIW-S850D1560U930-4F0-1E-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	103	103	103	103	93	93	93	93	74	74	74	56	56	56	40	40	40	32
1	93	89	85	81	84	80	77	74	64	61	59	48	47	46	35	34	33	26
2	85	77	71	66	76	70	65	60	55	52	49	42	40	38	30	29	27	22
3	77	68	60	55	69	61	55	50	49	44	41	37	34	32	26	25	23	18
4	70	60	52	46	63	54	47	42	43	38	34	33	30	27	24	21	20	15
5	65	53	45	39	58	48	41	36	38	33	29	29	26	23	21	19	17	13
6	59	47	39	34	53	43	36	31	34	29	25	27	23	20	19	17	15	12
7	55	43	35	29	49	39	32	27	31	26	22	24	20	18	17	15	13	10
8	51	39	31	26	45	35	28	24	28	23	20	22	18	16	16	14	12	9
9	47	35	28	23	42	32	25	21	26	21	17	20	17	14	15	12	11	8
10	44	32	25	20	39	29	23	19	24	19	16	19	15	13	14	11	10	7

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	5577	5577	5577
5°	5589	5475	5492
10°	5549	5377	5369
15°	5484	5260	5212
20°	5394	5115	5055
25°	5288	4960	4863
30°	5160	4791	4687
35°	5040	4634	4526
40°	4918	4469	4364
45°	4780	4328	4221
50°	4649	4175	4095
55°	4491	4030	3946
60°	4317	3865	3793
65°	4137	3693	3622
70°	3931	3457	3446
75°	3607	3230	3231
80°	3183	2957	2996
85°	2789	2770	2923



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	81.7	1.1
10°-20°	231.8	3.0
20°-30°	344.8	4.4
30°-40°	408.4	5.3
40°-50°	422.2	5.4
50°-60°	389.0	5.0
60°-70°	314.4	4.1
70°-80°	210.6	2.7
80°-90°	112.6	1.5
90°-100°	121.4	1.6
100°-110°	416.0	5.4
110°-120°	702.8	9.1
120°-130°	880.3	11.3
130°-140°	935.8	12.1
140°-150°	872.9	11.2
150°-160°	704.9	9.1
160°-170°	455.9	5.9
170°-180°	157.2	2.0
0°-30°	658.3	8.5
0°-40°	1066.7	13.7
0°-60°	1877.9	24.2
0°-90°	2515.5	32.4
90°-120°	1240.2	16.0
90°-150°	3929.2	50.6
90°-180°	5247.0	67.6
0°-180°	7762.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	864	864	864	864	864	
5°	864	862	856	862	862	82
15°	825	825	820	824	821	232
25°	749	751	747	750	746	345
35°	649	654	652	654	654	406
45°	534	543	548	553	555	412
55°	411	424	438	447	450	367
65°	283	302	323	335	339	280
75°	156	178	205	221	226	165
85°	47	75	104	122	130	50
90°	15	52	89	114	124	12
95°	81	97	81	105	112	98
105°	368	387	412	429	434	391
115°	683	695	718	728	726	676
125°	967	975	992	1000	1001	863
135°	1203	1210	1213	1221	1219	927
145°	1394	1395	1396	1400	1397	871
155°	1534	1527	1529	1532	1523	707
165°	1619	1612	1613	1619	1610	457
175°	1656	1649	1650	1658	1648	158
180°	1656	1656	1656	1656	1656	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	863.6	863.6	863.6	863.6	863.6	863.6	863.6	863.6	863.6	863.6	863.6
2.5°	865.7	865.4	865.1	864.8	864.5	863.8	862.7	861.7	860.6	859.6	860.6
5°	863.6	863.3	862.9	862.5	862.2	861.3	860.0	858.7	857.4	856.1	857.5
7.5°	856.1	855.9	855.7	855.6	855.4	854.7	853.4	852.0	850.6	849.3	850.6
10°	849.3	849.3	849.3	849.3	849.3	848.6	847.0	845.5	844.0	842.5	843.8
12.5°	839.8	839.9	840.1	840.2	840.4	839.8	838.7	837.5	836.3	835.0	836.1
15°	824.8	824.9	825.1	825.2	825.5	824.9	823.6	822.3	820.9	819.6	820.8
17.5°	805.1	805.4	805.8	806.2	806.6	806.1	804.8	803.5	802.2	800.9	801.7
20°	790.8	791.2	791.6	792.0	792.4	791.9	790.6	789.3	787.9	786.6	787.2
22.5°	774.6	775.3	775.9	776.7	777.3	776.9	775.4	774.0	772.5	771.0	771.8
25°	749.3	749.9	750.5	751.1	751.6	751.3	750.2	749.1	748.0	746.8	747.5
27.5°	721.2	722.1	722.9	723.7	724.6	724.3	723.1	721.8	720.5	719.3	719.7
30°	700.3	701.4	702.5	703.6	704.7	704.7	703.6	702.5	701.4	700.3	700.7
32.5°	681.3	682.2	683.2	684.2	685.2	685.3	684.4	683.6	682.8	682.0	682.3
35°	648.6	650.0	651.3	652.6	653.9	654.3	653.7	653.1	652.6	652.0	652.6
37.5°	615.9	617.1	618.3	619.5	620.8	621.3	621.0	620.9	620.7	620.5	621.3
40°	593.5	595.1	596.6	598.1	599.6	600.2	600.1	599.9	599.7	599.5	600.2
42.5°	569.2	571.1	573.1	575.0	577.0	578.2	578.6	579.0	579.4	579.8	580.7
45°	534.3	536.4	538.4	540.5	542.6	544.0	545.0	545.9	546.9	547.8	549.2
47.5°	498.6	500.5	502.4	504.3	506.2	508.0	509.6	511.3	512.8	514.5	516.4
50°	474.2	476.2	478.3	480.4	482.4	484.5	486.6	488.7	490.7	492.8	494.9
52.5°	448.4	450.9	453.5	456.0	458.5	461.1	463.6	466.1	468.6	471.2	473.4
55°	410.7	413.7	416.7	419.7	422.7	425.7	428.8	431.8	434.7	437.7	439.9
57.5°	372.0	375.7	379.3	382.9	386.5	390.0	393.5	397.0	400.4	403.9	406.3
60°	346.3	350.1	353.8	357.6	361.3	365.2	368.9	372.7	376.4	380.2	383.0
62.5°	321.2	325.0	328.8	332.6	336.3	340.2	344.3	348.4	352.4	356.4	359.6
65°	282.8	287.1	291.5	295.8	300.1	304.5	309.1	313.6	318.1	322.6	325.5
67.5°	246.5	250.8	254.9	259.1	263.3	267.7	272.2	276.9	281.4	286.0	289.4
70°	220.1	224.5	228.8	233.2	237.5	242.1	247.0	251.8	256.7	261.6	265.2
72.5°	194.4	198.9	203.3	207.8	212.3	217.2	222.6	228.0	233.3	238.6	242.5
75°	155.8	160.7	165.6	170.5	175.4	180.8	186.9	192.9	198.9	204.9	208.6
77.5°	118.7	124.3	130.0	135.7	141.3	147.0	152.8	158.6	164.4	170.2	174.3
80°	95.7	101.3	107.0	112.6	118.3	124.3	130.7	137.1	143.5	149.9	154.0
82.5°	74.7	80.6	86.6	92.5	98.5	104.7	111.3	117.8	124.3	130.9	134.9
85°	46.6	52.7	59.0	65.2	71.4	77.8	84.4	91.0	97.6	104.1	108.3
87.5°	26.7	33.1	39.5	46.1	52.5	59.1	65.9	72.6	79.4	86.3	90.8
90°	14.8	23.0	31.1	39.4	47.6	55.8	64.2	72.5	80.8	89.0	94.7
92.5°	31.1	35.1	39.2	43.2	47.3	53.4	61.6	69.9	78.1	86.3	91.9
95°	81.0	85.0	89.1	93.2	97.3	97.3	93.4	89.4	85.4	81.4	87.0
97.5°	156.0	161.9	167.8	173.7	179.5	175.3	160.9	146.7	132.3	118.0	114.2
100°	214.3	219.1	223.8	228.6	233.3	239.3	246.4	253.6	260.7	267.7	231.1
102.5°	273.5	278.2	282.8	287.6	292.2	297.8	304.4	310.9	317.4	323.9	320.1
105°	368.4	372.6	376.7	380.7	384.8	389.7	395.3	401.0	406.7	412.3	416.0
107.5°	467.1	469.6	472.2	474.7	477.4	481.6	487.5	493.5	499.5	505.5	509.2
110°	531.2	533.5	535.7	538.0	540.2	544.3	550.1	556.0	561.7	567.5	570.3



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	592.1	594.5	597.0	599.5	601.9	605.8	611.3	616.8	622.2	627.7	630.1
115°	682.6	685.3	687.9	690.6	693.2	697.2	702.4	707.5	712.7	717.9	720.2
117.5°	776.2	777.1	777.8	778.6	779.4	782.7	788.4	794.0	799.7	805.4	807.1
120°	835.1	835.4	835.7	836.0	836.3	839.0	844.2	849.3	854.4	859.6	862.3
122.5°	886.5	887.8	889.1	890.4	891.7	894.6	899.2	903.8	908.3	912.9	915.3
125°	966.9	968.6	970.3	972.0	973.7	976.5	980.2	984.0	987.7	991.5	993.4
127.5°	1042.8	1044.0	1045.1	1046.4	1047.5	1049.5	1052.5	1055.4	1058.3	1061.3	1063.5
130°	1090.0	1091.1	1092.3	1093.5	1094.6	1096.7	1099.6	1102.5	1105.4	1108.3	1110.1
132.5°	1136.4	1137.9	1139.5	1141.0	1142.6	1144.0	1145.5	1146.9	1148.3	1149.8	1152.3
135°	1203.2	1204.7	1206.2	1207.5	1209.0	1210.1	1210.9	1211.7	1212.4	1213.2	1215.1
137.5°	1264.7	1265.9	1267.2	1268.4	1269.7	1270.5	1270.6	1270.7	1270.9	1271.1	1273.4
140°	1304.2	1304.8	1305.4	1305.9	1306.4	1306.7	1306.6	1306.5	1306.4	1306.4	1309.0
142.5°	1340.6	1340.8	1340.9	1341.1	1341.2	1341.6	1342.0	1342.4	1342.9	1343.3	1345.2
145°	1393.8	1394.2	1394.6	1394.9	1395.3	1395.5	1395.5	1395.5	1395.5	1395.5	1396.7
147.5°	1439.7	1439.5	1439.4	1439.3	1439.2	1439.3	1439.7	1440.0	1440.3	1440.6	1441.3
150°	1469.1	1468.5	1468.0	1467.5	1466.9	1466.9	1467.5	1468.0	1468.5	1469.1	1469.7
152.5°	1497.5	1496.4	1495.2	1494.0	1492.7	1492.4	1493.0	1493.5	1494.1	1494.6	1495.2
155°	1534.1	1532.5	1530.9	1529.3	1527.6	1527.1	1527.6	1528.1	1528.7	1529.3	1530.1
157.5°	1562.4	1561.4	1560.4	1559.4	1558.4	1558.0	1558.0	1558.1	1558.1	1558.2	1559.1
160°	1582.0	1580.4	1578.7	1577.1	1575.5	1574.8	1575.1	1575.3	1575.6	1575.9	1577.0
162.5°	1597.7	1596.1	1594.5	1592.8	1591.1	1590.5	1590.7	1591.1	1591.3	1591.5	1593.1
165°	1618.9	1617.2	1615.5	1613.9	1612.3	1611.6	1611.8	1612.2	1612.4	1612.7	1614.3
167.5°	1634.5	1632.9	1631.2	1629.5	1627.7	1627.1	1627.3	1627.6	1627.9	1628.2	1630.1
170°	1643.4	1641.4	1639.6	1637.6	1635.7	1634.9	1635.2	1635.5	1635.7	1636.0	1638.2
172.5°	1649.3	1647.4	1645.4	1643.6	1641.6	1641.0	1641.4	1641.9	1642.4	1642.9	1644.9
175°	1655.6	1654.0	1652.4	1650.7	1649.1	1648.5	1648.7	1648.9	1649.3	1649.5	1651.7
177.5°	1658.6	1657.3	1656.0	1654.6	1653.3	1652.8	1653.0	1653.3	1653.4	1653.7	1655.2
180°	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	863.6	863.6	863.6	863.6	863.6	863.6	863.6	863.6
2.5°	861.7	862.7	863.8	864.3	864.1	864.0	863.8	863.6
5°	859.1	860.5	862.1	862.7	862.5	862.3	862.2	862.0
7.5°	851.9	853.2	854.5	855.1	854.9	854.8	854.5	854.4
10°	845.1	846.4	847.7	848.3	848.2	848.0	847.7	847.6
12.5°	837.1	838.1	839.1	839.4	838.9	838.4	837.9	837.4
15°	821.9	823.0	824.2	824.3	823.6	822.8	822.1	821.3
17.5°	802.6	803.5	804.3	804.5	804.0	803.6	803.2	802.7
20°	787.7	788.3	788.9	789.1	789.1	789.1	789.1	789.1
22.5°	772.5	773.1	773.9	774.0	773.6	773.1	772.7	772.3
25°	748.4	749.1	749.8	749.7	748.8	747.9	746.9	746.0
27.5°	720.2	720.8	721.3	721.5	721.1	720.7	720.4	720.1
30°	701.0	701.4	701.7	701.9	701.6	701.5	701.3	701.1
32.5°	682.7	683.1	683.5	683.5	683.4	683.2	683.0	682.8
35°	653.1	653.7	654.3	654.5	654.5	654.5	654.5	654.5
37.5°	622.0	622.7	623.5	623.9	623.8	623.7	623.6	623.5
40°	601.0	601.8	602.5	603.1	603.4	603.8	604.2	604.5
42.5°	581.6	582.5	583.4	583.9	584.0	584.1	584.2	584.2
45°	550.5	551.8	553.1	553.8	554.1	554.2	554.4	554.6
47.5°	518.3	520.2	522.1	523.3	523.7	524.2	524.6	525.0
50°	496.9	499.0	501.1	502.4	503.0	503.5	504.1	504.7
52.5°	475.6	477.8	480.0	481.4	481.8	482.2	482.6	483.0
55°	441.9	444.0	446.1	447.4	448.2	449.0	449.7	450.5
57.5°	408.6	411.0	413.4	414.8	415.4	416.0	416.5	417.1
60°	385.8	388.7	391.5	393.1	393.7	394.3	394.8	395.4
62.5°	362.7	365.8	369.0	370.9	371.6	372.3	373.0	373.7
65°	328.2	331.1	333.9	335.7	336.5	337.2	337.9	338.7
67.5°	292.9	296.3	299.7	301.9	302.9	303.9	304.8	305.8
70°	268.8	272.4	276.0	278.3	279.4	280.5	281.7	282.8
72.5°	246.4	250.2	254.1	256.5	257.3	258.1	258.9	259.8
75°	212.5	216.2	220.0	222.3	223.2	224.2	225.1	226.1
77.5°	178.5	182.6	186.8	189.2	190.0	190.7	191.4	192.2
80°	158.2	162.3	166.4	168.8	169.7	170.4	171.1	171.9
82.5°	138.8	142.8	146.8	149.5	150.9	152.2	153.6	155.0
85°	112.4	116.6	120.7	123.5	125.1	126.5	128.1	129.6
87.5°	95.5	100.0	104.6	107.7	109.2	110.6	112.1	113.6
90°	100.4	106.2	111.9	115.8	117.9	120.0	122.1	124.3
92.5°	97.4	103.0	108.5	112.1	113.8	115.5	117.2	119.0
95°	92.5	98.0	103.5	106.9	108.2	109.5	110.8	112.1
97.5°	110.5	106.7	103.0	101.7	103.1	104.4	105.6	106.9
100°	194.4	157.7	121.0	102.6	102.7	102.7	102.8	102.8
102.5°	316.2	312.3	308.3	297.7	280.3	262.9	245.5	228.0
105°	419.8	423.6	427.4	429.7	430.8	431.9	432.9	434.0
107.5°	513.0	516.8	520.6	522.6	523.0	523.3	523.7	524.0
110°	573.1	575.8	578.5	580.7	582.4	583.9	585.5	587.1





TEST NUMBER: P333426-930

CATALOG NUMBER: S125DIW-S850D1560U930-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	632.4	634.9	637.2	638.9	639.8	640.7	641.7	642.6
115°	722.4	724.7	727.1	728.0	727.4	726.9	726.4	725.9
117.5°	808.9	810.7	812.4	813.7	814.2	814.8	815.4	816.0
120°	864.9	867.6	870.2	871.4	871.1	871.0	870.7	870.5
122.5°	917.9	920.4	922.8	923.9	923.4	923.0	922.5	922.1
125°	995.3	997.3	999.1	1000.2	1000.3	1000.5	1000.5	1000.7
127.5°	1065.6	1067.8	1070.0	1070.7	1069.7	1068.8	1067.9	1066.9
130°	1111.9	1113.8	1115.6	1116.3	1115.8	1115.4	1115.0	1114.6
132.5°	1154.7	1157.2	1159.7	1160.6	1160.0	1159.4	1158.9	1158.3
135°	1217.0	1219.0	1220.8	1221.4	1220.7	1220.0	1219.4	1218.6
137.5°	1275.7	1278.1	1280.3	1281.2	1280.5	1279.9	1279.2	1278.6
140°	1311.6	1314.2	1316.8	1317.7	1316.8	1315.9	1315.0	1314.1
142.5°	1347.0	1348.9	1350.8	1351.3	1350.4	1349.5	1348.6	1347.8
145°	1397.9	1399.1	1400.3	1400.4	1399.6	1398.7	1397.8	1396.9
147.5°	1441.9	1442.5	1443.2	1442.7	1441.0	1439.4	1437.8	1436.1
150°	1470.1	1470.7	1471.3	1470.6	1468.6	1466.6	1464.6	1462.6
152.5°	1495.7	1496.2	1496.8	1496.1	1494.2	1492.2	1490.4	1488.4
155°	1530.9	1531.7	1532.5	1531.8	1529.7	1527.5	1525.3	1523.1
157.5°	1559.9	1560.8	1561.7	1561.1	1558.9	1556.7	1554.4	1552.3
160°	1578.0	1579.2	1580.2	1579.7	1577.5	1575.3	1573.1	1571.0
162.5°	1594.6	1596.2	1597.7	1597.3	1594.9	1592.4	1590.1	1587.6
165°	1615.9	1617.6	1619.3	1618.9	1616.8	1614.6	1612.4	1610.2
167.5°	1632.1	1634.0	1636.0	1635.7	1633.3	1630.8	1628.4	1626.0
170°	1640.4	1642.6	1644.7	1644.6	1642.2	1639.7	1637.2	1634.8
172.5°	1646.8	1648.8	1650.7	1650.5	1648.0	1645.6	1643.2	1640.7
175°	1653.8	1656.0	1658.2	1658.1	1655.6	1653.2	1650.7	1648.3
177.5°	1656.8	1658.2	1659.8	1659.7	1657.9	1656.2	1654.4	1652.7
180°	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6	1655.6

(END OF REPORT)