

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: P333392-840

Luminaire Tested: **S125DIW-S610D1340U840-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333392-840  
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-S610D1340U840-4F0-1E-UDD-F  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 610 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
UPLIGHT 1340 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7943.8 lumens  
Efficiency: N/A  
Efficacy: 147.7 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31  
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

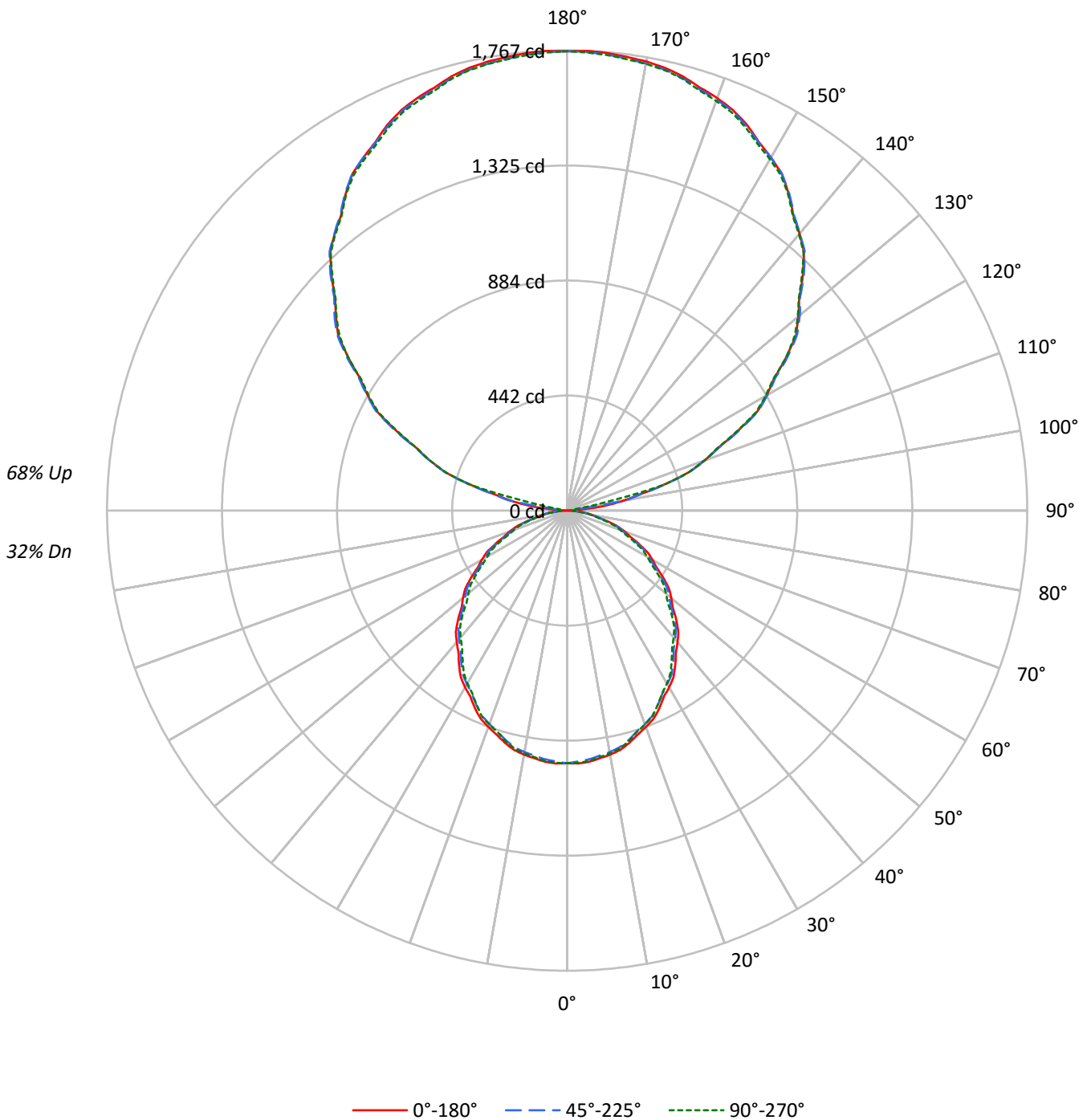
Input Watts (W): 53.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### 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	103	103	103	103	92	92	92	92	73	73	73	56	56	56	39	39	39	32
1	94	89	86	82	84	81	77	75	64	62	60	49	47	46	35	34	33	27
2	85	78	72	67	76	70	65	61	56	53	49	43	40	38	31	29	28	22
3	78	69	61	56	70	62	56	51	49	45	42	38	35	32	27	25	24	19
4	71	61	53	47	64	55	48	43	44	39	35	34	30	28	24	22	20	16
5	65	54	46	40	58	49	42	37	39	34	30	30	27	24	22	19	18	14
6	60	48	40	35	54	44	37	32	35	30	26	27	24	21	20	17	16	12
7	55	43	36	30	50	39	33	28	32	27	23	25	21	18	18	16	14	11
8	51	39	32	27	46	36	29	24	29	24	20	22	19	16	16	14	12	10
9	48	36	28	24	43	32	26	22	26	22	18	21	17	15	15	13	11	9
10	44	33	26	21	40	30	24	19	24	19	16	19	16	13	14	12	10	8

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

	0°	45°	90°
0°	6264	6264	6264
5°	6278	6218	6257
10°	6239	6174	6209
15°	6171	6100	6125
20°	6075	5996	6006
25°	5971	5872	5867
30°	5842	5739	5711
35°	5705	5595	5517
40°	5563	5440	5363
45°	5411	5298	5193
50°	5243	5127	4972
55°	5080	4933	4796
60°	4886	4738	4570
65°	4655	4504	4351
70°	4434	4232	4086
75°	4040	3905	3773
80°	3593	3537	3451
85°	3127	3179	3016



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	91.4	1.2
10°-20°	258.3	3.3
20°-30°	381.4	4.8
30°-40°	445.0	5.6
40°-50°	447.0	5.6
50°-60°	392.4	4.9
60°-70°	292.4	3.7
70°-80°	167.2	2.1
80°-90°	52.3	0.7
90°-100°	64.1	0.8
100°-110°	395.0	5.0
110°-120°	716.5	9.0
120°-130°	919.5	11.6
130°-140°	989.0	12.4
140°-150°	928.3	11.7
150°-160°	750.9	9.5
160°-170°	485.7	6.1
170°-180°	167.5	2.1
0°-30°	731.2	9.2
0°-40°	1176.2	14.8
0°-60°	2015.6	25.4
0°-90°	2527.4	31.8
90°-120°	1175.6	14.8
90°-150°	4012.4	50.5
90°-180°	5416.0	68.2
0°-180°	7943.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	970	970	970	970	970	
5°	968	966	959	966	965	92
15°	923	920	912	916	916	260
25°	838	834	824	825	823	385
35°	724	720	710	706	700	452
45°	592	589	580	571	569	456
55°	451	448	438	431	426	403
65°	305	303	295	288	285	302
75°	162	160	156	154	151	173
85°	42	43	43	42	41	47
90°	1	12	21	27	31	5
95°	74	68	21	27	28	95
105°	384	389	390	390	388	408
115°	722	728	730	724	716	715
125°	1026	1035	1036	1030	1026	916
135°	1280	1287	1285	1282	1275	986
145°	1484	1486	1487	1487	1480	928
155°	1634	1627	1629	1632	1623	753
165°	1725	1717	1718	1725	1716	487
175°	1764	1757	1757	1767	1756	168
180°	1764	1764	1764	1764	1764	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	969.9	969.9	969.9	969.9	969.9	969.9	969.9	969.9	969.9	969.9	969.9
2.5°	972.3	971.9	971.5	971.1	970.7	969.8	968.5	967.0	965.7	964.3	965.7
5°	968.4	968.0	967.7	967.2	966.9	965.9	964.2	962.5	960.8	959.1	960.7
7.5°	959.4	959.1	958.8	958.4	958.1	956.9	955.0	953.2	951.3	949.5	950.9
10°	951.4	951.1	950.8	950.4	950.1	949.0	947.1	945.2	943.3	941.5	942.8
12.5°	941.6	941.0	940.4	939.8	939.2	938.0	936.2	934.5	932.7	931.0	932.1
15°	923.0	922.5	922.0	921.5	921.0	919.8	918.0	916.0	914.1	912.3	913.1
17.5°	901.7	901.0	900.2	899.5	898.7	897.4	895.4	893.4	891.5	889.6	890.6
20°	883.9	883.5	883.2	882.9	882.5	881.3	879.1	876.9	874.6	872.4	873.6
22.5°	866.1	865.5	864.8	864.2	863.6	862.3	860.2	858.2	856.1	853.9	854.7
25°	837.9	837.0	836.2	835.4	834.5	832.9	830.7	828.5	826.3	824.0	824.5
27.5°	804.9	804.4	803.9	803.3	802.8	801.4	799.1	796.9	794.6	792.3	792.3
30°	783.4	782.8	782.3	781.8	781.3	779.8	777.3	774.7	772.1	769.6	769.2
32.5°	760.0	759.3	758.5	757.7	756.9	755.4	753.2	750.8	748.5	746.3	745.7
35°	723.6	722.9	722.2	721.5	720.8	719.3	716.9	714.5	712.2	709.7	708.9
37.5°	685.6	684.8	684.0	683.1	682.3	680.6	678.4	676.2	673.9	671.7	670.4
40°	659.8	659.0	658.1	657.3	656.4	654.8	652.5	650.1	647.6	645.3	643.8
42.5°	632.3	631.6	630.8	630.1	629.3	627.8	625.4	623.1	620.7	618.2	616.9
45°	592.4	591.7	591.0	590.3	589.7	588.2	586.2	584.2	582.1	580.1	578.0
47.5°	549.4	549.4	549.5	549.5	549.5	548.3	545.8	543.4	541.0	538.5	536.4
50°	521.8	521.2	520.7	520.2	519.7	518.5	516.3	514.3	512.3	510.3	508.1
52.5°	493.5	493.1	492.8	492.4	492.0	490.7	488.6	486.4	484.2	482.0	480.1
55°	451.2	450.6	450.1	449.6	449.1	447.7	445.2	442.9	440.5	438.1	436.6
57.5°	406.5	406.3	406.0	405.7	405.5	404.2	402.2	400.2	398.2	396.3	394.3
60°	378.3	377.6	376.9	376.2	375.6	374.3	372.4	370.5	368.6	366.8	365.1
62.5°	348.8	348.3	347.7	347.2	346.6	345.6	344.0	342.3	340.7	339.1	337.3
65°	304.6	304.3	304.0	303.6	303.3	302.2	300.2	298.4	296.5	294.7	293.1
67.5°	261.8	261.1	260.3	259.6	258.9	257.9	256.5	255.1	253.7	252.3	251.0
70°	234.8	234.0	233.1	232.3	231.4	230.1	228.6	227.1	225.6	224.1	223.0
72.5°	205.3	204.7	204.2	203.6	203.0	202.2	201.3	200.3	199.2	198.2	197.1
75°	161.9	161.6	161.2	160.9	160.6	160.0	159.1	158.2	157.3	156.5	156.0
77.5°	121.9	121.7	121.6	121.4	121.3	121.0	120.5	120.1	119.6	119.1	118.8
80°	96.6	96.6	96.6	96.6	96.6	96.5	96.1	95.8	95.5	95.1	94.9
82.5°	74.6	74.3	74.0	73.7	73.5	73.3	73.2	73.2	73.1	73.0	72.7
85°	42.2	42.4	42.5	42.7	42.9	42.9	42.9	42.9	42.9	42.9	42.8
87.5°	16.9	17.3	17.8	18.3	18.7	19.1	19.3	19.6	19.9	20.1	20.4
90°	1.3	3.6	6.0	8.3	10.6	12.8	14.8	16.9	18.9	20.9	22.4
92.5°	20.1	18.5	16.9	15.2	13.6	13.7	15.6	17.3	19.1	20.9	22.4
95°	74.5	73.6	72.8	71.9	71.0	65.0	54.0	43.0	31.9	20.9	22.4
97.5°	155.6	157.1	158.8	160.3	161.9	151.7	129.9	108.1	86.1	64.3	56.1
100°	218.3	219.2	220.0	221.0	221.9	222.9	224.0	225.2	226.3	227.5	184.2
102.5°	282.2	283.3	284.4	285.5	286.6	287.5	288.2	288.9	289.5	290.2	282.1
105°	384.5	385.6	386.8	387.9	389.1	389.6	389.6	389.6	389.6	389.6	389.6
107.5°	490.6	490.6	490.6	490.6	490.6	490.9	491.5	492.0	492.6	493.2	493.2
110°	559.7	559.7	559.7	559.7	559.7	559.9	560.5	561.1	561.7	562.2	561.4



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	624.5	625.2	625.9	626.5	627.2	627.8	628.1	628.4	628.8	629.1	628.0
115°	721.8	723.2	724.7	726.1	727.6	728.4	728.7	729.0	729.3	729.6	728.4
117.5°	822.4	822.3	822.3	822.2	822.2	822.7	823.8	825.0	826.1	827.2	825.7
120°	885.1	884.9	884.6	884.3	884.0	884.3	885.1	886.1	887.0	887.8	887.3
122.5°	940.6	941.7	942.8	943.9	945.0	945.8	946.2	946.6	947.1	947.5	946.8
125°	1026.4	1028.4	1030.5	1032.5	1034.5	1035.5	1035.5	1035.5	1035.5	1035.5	1034.4
127.5°	1108.2	1109.7	1111.2	1112.6	1114.1	1114.7	1114.5	1114.4	1114.2	1114.0	1113.4
130°	1158.4	1159.9	1161.3	1162.9	1164.3	1165.2	1165.5	1165.7	1166.0	1166.3	1165.5
132.5°	1208.7	1210.3	1212.0	1213.8	1215.4	1216.0	1215.3	1214.7	1214.1	1213.4	1213.3
135°	1280.1	1281.8	1283.5	1285.3	1287.1	1287.6	1287.1	1286.5	1285.9	1285.3	1284.8
137.5°	1345.7	1347.2	1348.7	1350.2	1351.7	1352.2	1351.7	1351.2	1350.7	1350.2	1350.3
140°	1388.6	1389.2	1389.8	1390.3	1390.9	1391.1	1390.8	1390.5	1390.2	1389.9	1390.5
142.5°	1427.2	1427.6	1427.9	1428.4	1428.7	1429.1	1429.5	1429.9	1430.3	1430.7	1430.8
145°	1484.0	1484.6	1485.2	1485.8	1486.3	1486.6	1486.6	1486.6	1486.6	1486.6	1486.9
147.5°	1533.7	1533.6	1533.5	1533.4	1533.3	1533.4	1533.7	1534.1	1534.4	1534.8	1535.1
150°	1565.1	1564.5	1564.0	1563.4	1562.8	1562.8	1563.4	1564.0	1564.5	1565.1	1565.7
152.5°	1595.4	1594.2	1592.9	1591.6	1590.3	1589.9	1590.5	1591.1	1591.7	1592.3	1592.9
155°	1634.4	1632.6	1630.9	1629.2	1627.4	1626.9	1627.4	1628.0	1628.6	1629.2	1630.0
157.5°	1664.5	1663.4	1662.3	1661.3	1660.3	1659.8	1659.8	1659.9	1660.0	1660.0	1660.9
160°	1685.4	1683.6	1681.9	1680.1	1678.4	1677.7	1678.0	1678.3	1678.6	1678.9	1680.0
162.5°	1702.1	1700.4	1698.6	1696.9	1695.2	1694.5	1694.8	1695.1	1695.3	1695.6	1697.2
165°	1724.6	1722.8	1721.1	1719.4	1717.7	1716.9	1717.2	1717.5	1717.8	1718.1	1719.8
167.5°	1741.3	1739.6	1737.8	1736.0	1734.1	1733.4	1733.6	1733.9	1734.2	1734.5	1736.7
170°	1750.8	1748.8	1746.7	1744.6	1742.6	1741.7	1742.0	1742.3	1742.6	1742.9	1745.2
172.5°	1757.1	1755.0	1753.0	1750.9	1748.9	1748.2	1748.7	1749.2	1749.7	1750.2	1752.3
175°	1763.8	1762.1	1760.4	1758.6	1756.9	1756.2	1756.5	1756.8	1757.1	1757.3	1759.6
177.5°	1767.0	1765.5	1764.2	1762.8	1761.4	1760.8	1761.1	1761.3	1761.5	1761.7	1763.4
180°	1763.8	1763.8	1763.8	1763.8	1763.8	1763.8	1763.8	1763.8	1763.8	1763.8	1763.8



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	969.9	969.9	969.9	969.9	969.9	969.9	969.9	969.9
2.5°	967.0	968.5	969.8	970.4	970.3	970.1	970.0	969.9
5°	962.2	963.7	965.2	965.9	965.7	965.6	965.4	965.2
7.5°	952.4	953.9	955.4	956.1	955.9	955.7	955.6	955.4
10°	944.2	945.5	947.0	947.6	947.4	947.2	947.0	946.8
12.5°	933.2	934.3	935.3	935.9	935.8	935.8	935.8	935.7
15°	914.0	914.8	915.7	916.1	916.1	916.1	916.1	916.1
17.5°	891.7	892.7	893.8	893.9	893.0	892.2	891.4	890.5
20°	874.7	876.0	877.2	877.4	876.5	875.7	874.7	873.9
22.5°	855.6	856.4	857.2	857.3	856.7	856.1	855.5	855.0
25°	824.8	825.1	825.5	825.4	824.9	824.4	823.8	823.3
27.5°	792.4	792.5	792.5	792.3	791.8	791.3	790.8	790.3
30°	768.9	768.6	768.2	767.8	767.3	766.8	766.3	765.8
32.5°	745.1	744.4	743.8	743.1	742.1	741.2	740.2	739.3
35°	708.0	707.2	706.3	705.2	703.9	702.5	701.1	699.7
37.5°	669.1	667.9	666.6	665.6	664.8	664.1	663.3	662.5
40°	642.2	640.7	639.1	638.1	637.6	637.1	636.6	636.1
42.5°	615.5	614.1	612.7	611.6	610.8	610.1	609.3	608.4
45°	575.9	573.9	571.9	570.6	570.1	569.6	569.1	568.6
47.5°	534.3	532.2	530.2	528.6	527.4	526.1	524.9	523.7
50°	505.8	503.6	501.4	499.7	498.5	497.3	496.0	494.9
52.5°	478.1	476.2	474.2	472.6	471.3	469.9	468.6	467.3
55°	435.0	433.5	432.0	430.6	429.4	428.2	427.1	425.9
57.5°	392.2	390.3	388.3	387.0	386.4	385.7	385.1	384.5
60°	363.3	361.6	359.9	358.5	357.3	356.1	354.9	353.8
62.5°	335.5	333.7	331.7	330.4	329.5	328.5	327.6	326.7
65°	291.5	290.0	288.5	287.4	286.7	286.0	285.4	284.7
67.5°	249.7	248.4	247.1	246.2	245.8	245.4	245.0	244.6
70°	222.0	221.0	219.9	219.1	218.4	217.7	217.0	216.4
72.5°	195.9	194.8	193.6	192.7	192.0	191.4	190.7	190.0
75°	155.5	155.0	154.5	153.9	153.2	152.5	151.9	151.2
77.5°	118.5	118.2	117.9	117.4	116.9	116.5	116.0	115.5
80°	94.8	94.6	94.4	94.2	93.8	93.5	93.2	92.8
82.5°	72.4	72.1	71.8	71.6	71.6	71.5	71.4	71.4
85°	42.6	42.4	42.3	42.0	41.7	41.3	41.0	40.7
87.5°	20.7	21.0	21.3	21.4	21.3	21.2	21.1	21.0
90°	23.8	25.2	26.8	27.9	28.8	29.6	30.5	31.4
92.5°	23.8	25.2	26.8	27.7	28.1	28.5	28.9	29.3
95°	23.8	25.2	26.8	27.5	27.5	27.5	27.5	27.5
97.5°	48.0	39.8	31.5	27.5	27.5	27.5	27.5	27.5
100°	140.9	97.7	54.3	32.1	30.9	29.8	28.6	27.5
102.5°	273.9	265.7	257.5	243.5	223.8	204.0	184.2	164.5
105°	389.6	389.6	389.6	389.5	389.2	388.9	388.6	388.3
107.5°	493.3	493.4	493.4	493.0	492.1	491.3	490.4	489.6
110°	560.5	559.7	558.8	558.5	558.8	559.1	559.4	559.7





TEST NUMBER: P333392-840

CATALOG NUMBER: S125DIW-S610D1340U840-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	626.9	625.9	624.8	624.0	623.6	623.2	622.8	622.4
115°	727.3	726.1	725.0	723.5	721.8	720.0	718.2	716.5
117.5°	824.2	822.6	821.1	819.9	819.2	818.5	817.7	817.0
120°	886.7	886.1	885.4	884.4	883.0	881.5	880.1	878.7
122.5°	946.2	945.6	945.1	943.9	942.3	940.6	938.9	937.3
125°	1033.2	1032.1	1030.9	1029.9	1029.1	1028.1	1027.2	1026.4
127.5°	1112.8	1112.1	1111.5	1110.0	1107.9	1105.8	1103.6	1101.5
130°	1164.6	1163.7	1162.9	1161.6	1160.2	1158.7	1157.3	1155.9
132.5°	1213.0	1212.8	1212.6	1211.8	1210.4	1209.0	1207.5	1206.1
135°	1284.1	1283.5	1282.9	1281.8	1280.1	1278.3	1276.6	1274.9
137.5°	1350.4	1350.5	1350.6	1349.9	1348.4	1346.9	1345.3	1343.8
140°	1391.1	1391.6	1392.2	1391.6	1389.9	1388.2	1386.4	1384.6
142.5°	1430.9	1431.1	1431.2	1430.4	1428.6	1426.8	1425.1	1423.4
145°	1487.2	1487.5	1487.8	1487.1	1485.3	1483.6	1481.9	1480.2
147.5°	1535.5	1535.8	1536.2	1535.3	1533.2	1531.1	1529.0	1526.9
150°	1566.3	1566.8	1567.4	1566.5	1564.2	1561.9	1559.5	1557.2
152.5°	1593.5	1594.1	1594.6	1593.9	1591.7	1589.7	1587.6	1585.5
155°	1630.9	1631.7	1632.6	1631.9	1629.6	1627.3	1625.0	1622.7
157.5°	1661.9	1662.8	1663.8	1663.0	1660.7	1658.4	1656.1	1653.8
160°	1681.2	1682.3	1683.5	1682.9	1680.6	1678.3	1676.0	1673.6
162.5°	1698.8	1700.5	1702.1	1701.6	1699.1	1696.5	1693.9	1691.4
165°	1721.5	1723.3	1725.1	1724.7	1722.4	1720.1	1717.8	1715.5
167.5°	1738.8	1740.8	1742.9	1742.6	1740.0	1737.5	1734.8	1732.2
170°	1747.6	1749.9	1752.2	1752.1	1749.5	1746.9	1744.2	1741.6
172.5°	1754.4	1756.6	1758.6	1758.4	1755.8	1753.1	1750.5	1747.9
175°	1761.9	1764.2	1766.6	1766.5	1763.8	1761.2	1758.6	1756.0
177.5°	1765.0	1766.7	1768.3	1768.2	1766.3	1764.4	1762.5	1760.7
180°	1763.8	1763.8	1763.8	1763.8	1763.8	1763.8	1763.8	1763.8

(END OF REPORT)