

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: P333397-840

Luminaire Tested: **S125DIW-S610D1560U840-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333397-840
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-S610D1560U840-4F0-1E-UDD-D1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 610 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1560 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7889.5 lumens
Efficiency: N/A
Efficacy: 130.2 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

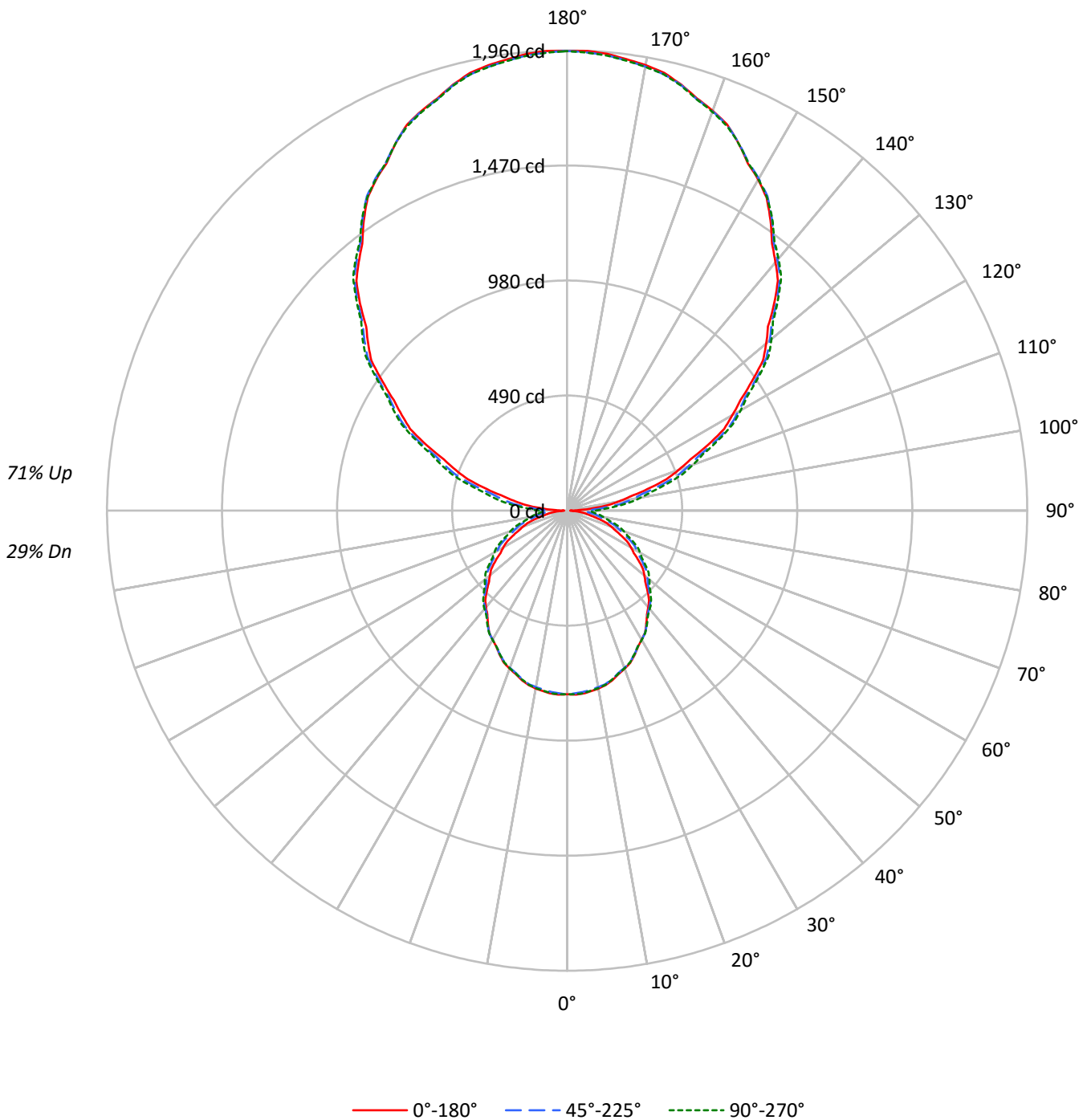
Input Watts (W): 60.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	102	102	102	102	91	91	91	91	72	72	72	53	53	53	37	37	37	29
1	93	88	84	81	83	79	76	73	62	60	58	46	45	43	32	31	30	23
2	84	77	71	66	75	69	64	59	54	50	47	40	38	36	28	26	25	19
3	77	67	60	54	68	60	54	49	47	43	40	35	33	30	24	23	21	16
4	70	59	52	46	62	53	47	42	42	37	33	31	28	26	22	20	18	14
5	64	53	45	39	57	47	41	35	37	32	29	28	25	22	19	17	16	12
6	59	47	39	33	52	42	36	31	34	29	25	25	22	19	18	15	14	10
7	54	42	35	29	48	38	31	27	30	25	22	23	19	17	16	14	12	9
8	50	38	31	26	45	35	28	23	28	23	19	21	17	15	15	12	11	8
9	47	35	27	23	42	31	25	21	25	20	17	19	16	13	14	11	10	7
10	43	32	25	20	39	29	23	18	23	18	15	18	14	12	13	10	9	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5054	5054	5054
5°	5064	4961	4977
10°	5029	4873	4865
15°	4969	4767	4723
20°	4888	4635	4581
25°	4792	4495	4406
30°	4676	4340	4247
35°	4567	4199	4102
40°	4457	4049	3955
45°	4331	3922	3825
50°	4213	3783	3710
55°	4069	3652	3575
60°	3913	3503	3437
65°	3749	3347	3282
70°	3561	3133	3123
75°	3269	2928	2928
80°	2884	2679	2713
85°	2526	2512	2645



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.0	0.9
10°-20°	210.1	2.7
20°-30°	312.4	4.0
30°-40°	370.1	4.7
40°-50°	382.6	4.8
50°-60°	352.5	4.5
60°-70°	284.9	3.6
70°-80°	190.8	2.4
80°-90°	103.2	1.3
90°-100°	186.6	2.4
100°-110°	428.0	5.4
110°-120°	683.1	8.7
120°-130°	878.4	11.1
130°-140°	973.6	12.3
140°-150°	949.0	12.0
150°-160°	795.9	10.1
160°-170°	529.1	6.7
170°-180°	185.2	2.3
0°-30°	596.5	7.6
0°-40°	966.6	12.3
0°-60°	1701.7	21.6
0°-90°	2280.6	28.9
90°-120°	1297.7	16.4
90°-150°	4098.8	52.0
90°-180°	5609.0	71.1
0°-180°	7889.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	783	783	783	783	783	
5°	783	781	776	781	781	74
15°	747	748	743	747	744	210
25°	679	681	677	679	676	312
35°	588	593	591	593	593	368
45°	484	492	496	502	503	373
55°	372	384	397	405	408	333
65°	256	274	292	303	307	254
75°	141	161	186	200	205	150
85°	42	68	94	111	117	45
90°	14	51	87	112	122	14
95°	109	133	173	200	209	113
105°	354	375	406	430	441	378
115°	661	673	696	707	711	654
125°	961	970	986	995	998	860
135°	1247	1256	1263	1272	1270	961
145°	1510	1515	1520	1524	1522	943
155°	1727	1727	1729	1734	1727	795
165°	1878	1875	1876	1882	1873	530
175°	1953	1947	1946	1954	1945	185
180°	1957	1957	1957	1957	1957	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	782.6	782.6	782.6	782.6	782.6	782.6	782.6	782.6	782.6	782.6	782.6
2.5°	784.5	784.2	784.0	783.7	783.4	782.7	781.8	780.8	779.9	778.9	779.9
5°	782.6	782.2	781.9	781.6	781.2	780.5	779.3	778.1	776.9	775.7	777.1
7.5°	775.7	775.6	775.5	775.3	775.2	774.5	773.3	772.0	770.8	769.6	770.7
10°	769.6	769.6	769.6	769.6	769.6	768.9	767.5	766.2	764.8	763.5	764.7
12.5°	761.0	761.1	761.2	761.4	761.5	761.0	759.9	758.9	757.8	756.7	757.6
15°	747.3	747.5	747.7	747.8	748.0	747.5	746.3	745.1	744.0	742.8	743.8
17.5°	729.5	729.8	730.2	730.5	730.9	730.4	729.3	728.1	726.9	725.7	726.5
20°	716.6	717.0	717.3	717.7	718.0	717.6	716.4	715.2	714.0	712.8	713.3
22.5°	702.0	702.6	703.2	703.8	704.4	704.0	702.7	701.4	700.0	698.7	699.3
25°	679.0	679.5	680.0	680.5	681.1	680.9	679.8	678.8	677.7	676.7	677.4
27.5°	653.6	654.3	655.1	655.8	656.6	656.4	655.2	654.1	652.9	651.8	652.2
30°	634.5	635.6	636.6	637.6	638.6	638.6	637.6	636.6	635.6	634.5	634.9
32.5°	617.3	618.2	619.1	620.1	620.9	621.0	620.3	619.5	618.7	617.9	618.3
35°	587.7	589.0	590.2	591.3	592.5	592.9	592.4	591.8	591.3	590.8	591.3
37.5°	558.2	559.3	560.3	561.4	562.5	562.9	562.8	562.6	562.4	562.3	562.9
40°	537.9	539.3	540.6	542.0	543.3	543.9	543.7	543.6	543.4	543.2	543.9
42.5°	515.7	517.6	519.3	521.1	522.9	523.9	524.3	524.7	525.0	525.4	526.2
45°	484.1	486.0	487.9	489.8	491.7	493.0	493.9	494.7	495.5	496.4	497.7
47.5°	451.8	453.5	455.2	457.0	458.8	460.3	461.8	463.2	464.7	466.2	468.0
50°	429.7	431.5	433.4	435.4	437.2	439.1	440.9	442.8	444.6	446.6	448.5
52.5°	406.4	408.6	410.9	413.2	415.5	417.8	420.1	422.3	424.6	426.9	428.9
55°	372.1	374.9	377.6	380.3	383.0	385.8	388.5	391.2	393.9	396.7	398.6
57.5°	337.2	340.4	343.7	347.0	350.2	353.5	356.6	359.7	362.8	366.0	368.1
60°	313.9	317.2	320.6	324.1	327.5	330.8	334.3	337.7	341.1	344.5	347.1
62.5°	291.1	294.5	297.9	301.3	304.8	308.3	311.9	315.7	319.3	323.1	325.9
65°	256.3	260.2	264.1	268.0	272.0	276.0	280.0	284.2	288.2	292.4	294.9
67.5°	223.5	227.2	231.0	234.8	238.5	242.6	246.7	250.9	255.0	259.2	262.3
70°	199.4	203.4	207.3	211.3	215.2	219.3	223.8	228.2	232.7	237.1	240.3
72.5°	176.1	180.3	184.3	188.3	192.4	196.8	201.7	206.5	211.4	216.2	219.7
75°	141.2	145.6	150.1	154.5	159.0	163.9	169.4	174.8	180.3	185.7	189.0
77.5°	107.6	112.7	117.9	122.9	128.1	133.2	138.5	143.7	149.0	154.2	157.9
80°	86.7	91.8	96.9	102.1	107.1	112.6	118.5	124.2	130.0	135.8	139.6
82.5°	67.7	73.0	78.5	83.8	89.3	94.9	100.8	106.7	112.7	118.7	122.2
85°	42.2	47.9	53.4	59.1	64.7	70.5	76.4	82.4	88.4	94.4	98.2
87.5°	24.2	30.2	36.3	42.2	48.3	54.3	60.6	67.0	73.2	79.5	83.7
90°	13.8	21.9	30.1	38.3	46.5	54.6	62.8	71.0	79.1	87.3	92.9
92.5°	47.9	54.8	61.8	68.8	75.6	83.6	92.4	101.3	110.1	119.0	124.9
95°	109.0	114.1	119.2	124.3	129.4	136.5	145.7	154.9	164.1	173.3	179.5
97.5°	173.5	177.8	182.1	186.3	190.6	197.8	208.1	218.3	228.6	238.9	244.7
100°	221.7	225.2	228.8	232.4	236.0	242.7	252.6	262.5	272.3	282.2	288.7
102.5°	273.5	278.1	282.8	287.4	292.1	298.2	305.8	313.3	320.8	328.4	335.2
105°	354.2	358.6	363.0	367.4	371.8	377.6	384.8	391.9	399.1	406.2	411.6
107.5°	443.4	447.4	451.4	455.4	459.5	464.6	471.2	477.7	484.1	490.6	494.9
110°	504.9	508.7	512.4	516.1	519.9	524.6	530.5	536.2	542.0	547.9	552.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	568.3	570.8	573.3	575.8	578.3	582.6	588.4	594.4	600.4	606.2	609.9
115°	661.1	663.6	666.1	668.6	671.3	675.1	680.1	685.3	690.3	695.5	698.2
117.5°	754.1	755.5	756.9	758.3	759.6	762.8	767.6	772.3	777.2	781.9	785.2
120°	812.5	814.8	817.0	819.2	821.4	824.7	828.9	833.1	837.4	841.6	844.6
122.5°	875.4	876.2	877.0	877.9	878.7	881.5	886.2	890.8	895.4	900.1	902.6
125°	961.1	962.9	964.8	966.6	968.5	971.3	975.0	978.8	982.6	986.3	988.4
127.5°	1051.7	1052.7	1053.6	1054.6	1055.6	1057.7	1060.9	1064.1	1067.3	1070.5	1072.7
130°	1106.5	1108.0	1109.5	1111.1	1112.6	1114.9	1117.9	1121.1	1124.1	1127.1	1129.2
132.5°	1160.7	1163.5	1166.2	1168.9	1171.6	1173.9	1175.6	1177.3	1179.0	1180.7	1182.8
135°	1247.4	1249.2	1251.1	1252.9	1254.9	1256.5	1258.1	1259.6	1261.1	1262.6	1264.9
137.5°	1328.9	1330.7	1332.5	1334.3	1336.2	1337.8	1339.1	1340.4	1341.7	1343.0	1345.4
140°	1380.7	1382.3	1384.0	1385.7	1387.5	1388.9	1390.1	1391.2	1392.4	1393.6	1396.1
142.5°	1433.0	1434.3	1435.6	1436.9	1438.1	1439.5	1440.8	1442.1	1443.4	1444.7	1446.7
145°	1510.1	1511.3	1512.5	1513.7	1514.8	1515.9	1516.9	1517.9	1518.9	1519.9	1520.9
147.5°	1580.6	1581.3	1582.1	1582.9	1583.6	1584.4	1585.2	1586.0	1586.8	1587.6	1588.7
150°	1628.1	1627.8	1627.5	1627.1	1626.8	1627.3	1628.6	1630.0	1631.3	1632.7	1632.7
152.5°	1667.1	1667.6	1668.1	1668.5	1669.0	1669.5	1670.1	1670.6	1671.1	1671.7	1672.5
155°	1727.2	1727.2	1727.2	1727.2	1727.2	1727.3	1727.7	1728.0	1728.3	1728.7	1730.0
157.5°	1780.7	1780.0	1779.3	1778.5	1777.8	1777.6	1777.9	1778.3	1778.6	1778.9	1780.3
160°	1812.4	1811.4	1810.4	1809.4	1808.4	1808.1	1808.4	1808.7	1809.1	1809.4	1810.7
162.5°	1840.5	1839.7	1839.0	1838.3	1837.4	1837.1	1837.1	1837.2	1837.3	1837.3	1839.1
165°	1877.9	1877.2	1876.5	1875.9	1875.2	1875.0	1875.4	1875.7	1876.0	1876.4	1877.7
167.5°	1909.6	1908.2	1906.9	1905.5	1904.2	1903.5	1903.5	1903.5	1903.5	1903.5	1905.5
170°	1926.6	1925.3	1923.9	1922.6	1921.3	1920.6	1920.6	1920.6	1920.6	1920.6	1922.6
172.5°	1938.8	1937.5	1936.1	1934.8	1933.4	1932.8	1932.8	1932.8	1932.8	1932.8	1934.8
175°	1952.6	1951.2	1949.8	1948.4	1947.1	1946.4	1946.4	1946.4	1946.4	1946.4	1948.4
177.5°	1959.5	1958.4	1957.4	1956.3	1955.2	1954.5	1954.3	1954.0	1953.7	1953.5	1955.1
180°	1957.1	1957.1	1957.1	1957.1	1957.1	1957.1	1957.1	1957.1	1957.1	1957.1	1957.1



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	782.6	782.6	782.6	782.6	782.6	782.6	782.6	782.6
2.5°	780.8	781.8	782.7	783.2	783.0	782.9	782.7	782.6
5°	778.4	779.8	781.1	781.7	781.6	781.4	781.2	781.1
7.5°	771.9	773.2	774.4	774.9	774.7	774.6	774.4	774.2
10°	765.9	767.0	768.2	768.7	768.6	768.4	768.2	768.0
12.5°	758.5	759.4	760.4	760.6	760.1	759.7	759.3	758.8
15°	744.8	745.8	746.8	747.0	746.3	745.6	745.0	744.3
17.5°	727.3	728.0	728.8	729.0	728.6	728.2	727.8	727.4
20°	713.9	714.4	714.9	715.1	715.1	715.1	715.1	715.1
22.5°	699.9	700.6	701.3	701.4	700.9	700.5	700.1	699.7
25°	678.1	678.8	679.4	679.4	678.5	677.7	676.8	676.0
27.5°	652.7	653.2	653.7	653.7	653.4	653.1	652.8	652.5
30°	635.2	635.6	635.9	636.0	635.8	635.6	635.5	635.3
32.5°	618.6	618.9	619.4	619.5	619.2	619.0	618.9	618.7
35°	591.8	592.4	592.9	593.1	593.1	593.1	593.1	593.1
37.5°	563.6	564.3	565.0	565.3	565.2	565.1	565.1	565.0
40°	544.6	545.3	545.9	546.4	546.8	547.1	547.5	547.9
42.5°	527.0	527.9	528.7	529.2	529.3	529.3	529.4	529.5
45°	498.8	500.0	501.2	501.9	502.1	502.2	502.4	502.6
47.5°	469.7	471.4	473.1	474.2	474.6	474.9	475.3	475.7
50°	450.3	452.2	454.0	455.2	455.8	456.3	456.8	457.3
52.5°	430.9	432.9	434.9	436.2	436.6	436.9	437.3	437.7
55°	400.4	402.3	404.1	405.5	406.2	406.9	407.5	408.2
57.5°	370.3	372.4	374.6	375.9	376.5	377.0	377.5	378.0
60°	349.6	352.1	354.8	356.3	356.8	357.3	357.8	358.3
62.5°	328.7	331.5	334.4	336.1	336.7	337.4	338.0	338.7
65°	297.4	300.0	302.6	304.2	304.9	305.6	306.2	306.9
67.5°	265.4	268.5	271.6	273.6	274.5	275.4	276.3	277.1
70°	243.6	246.8	250.0	252.2	253.2	254.2	255.3	256.3
72.5°	223.3	226.7	230.2	232.4	233.2	233.9	234.7	235.4
75°	192.5	195.9	199.3	201.5	202.3	203.2	204.0	204.9
77.5°	161.7	165.5	169.3	171.5	172.1	172.8	173.5	174.2
80°	143.3	147.0	150.8	153.0	153.7	154.4	155.1	155.7
82.5°	125.8	129.5	133.1	135.5	136.7	137.9	139.2	140.4
85°	101.9	105.6	109.4	111.9	113.3	114.6	116.0	117.3
87.5°	88.0	92.2	96.5	99.4	100.7	102.1	103.5	104.9
90°	98.6	104.1	109.8	113.6	115.8	118.1	120.3	122.5
92.5°	131.0	137.0	143.0	147.0	149.0	150.9	152.8	154.7
95°	185.5	191.7	197.7	201.8	203.6	205.5	207.3	209.2
97.5°	250.5	256.3	262.2	265.9	267.4	269.0	270.5	272.2
100°	295.4	302.1	308.6	312.8	314.5	316.2	317.9	319.6
102.5°	341.9	348.7	355.5	359.8	361.8	363.8	365.8	367.7
105°	417.1	422.5	428.0	431.8	434.0	436.3	438.4	440.6
107.5°	499.4	503.7	508.2	510.8	511.8	512.8	513.8	514.7
110°	556.3	560.6	564.8	567.3	568.3	569.1	570.0	570.8



TEST NUMBER: P333397-840

CATALOG NUMBER: S125DIW-S610D1560U840-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	613.4	617.0	620.6	622.7	623.3	623.8	624.4	625.0
115°	700.9	703.7	706.4	708.1	708.8	709.5	710.1	710.8
117.5°	788.3	791.5	794.7	796.2	796.0	795.8	795.6	795.4
120°	847.5	850.3	853.2	854.5	854.2	853.8	853.5	853.2
122.5°	905.1	907.6	910.1	911.3	911.2	911.2	911.1	911.1
125°	990.4	992.5	994.5	995.8	996.3	996.8	997.3	997.8
127.5°	1074.9	1077.0	1079.2	1080.5	1080.8	1081.2	1081.5	1081.8
130°	1131.3	1133.3	1135.3	1136.4	1136.6	1136.8	1137.0	1137.1
132.5°	1184.9	1186.9	1188.9	1189.8	1189.6	1189.4	1189.1	1188.9
135°	1267.1	1269.3	1271.5	1272.3	1271.8	1271.3	1270.9	1270.4
137.5°	1347.9	1350.3	1352.7	1353.4	1352.4	1351.4	1350.4	1349.4
140°	1398.7	1401.3	1403.8	1404.6	1403.6	1402.6	1401.6	1400.6
142.5°	1448.8	1450.8	1452.8	1453.3	1452.3	1451.3	1450.3	1449.3
145°	1521.7	1522.6	1523.4	1523.7	1523.4	1523.0	1522.7	1522.4
147.5°	1589.8	1590.8	1592.0	1591.5	1589.5	1587.5	1585.5	1583.6
150°	1632.7	1632.7	1632.7	1632.4	1631.9	1631.4	1630.9	1630.4
152.5°	1673.3	1674.2	1675.0	1674.8	1673.5	1672.3	1671.2	1670.0
155°	1731.3	1732.7	1734.0	1733.9	1732.2	1730.5	1728.8	1727.2
157.5°	1781.6	1783.0	1784.3	1783.9	1781.6	1779.4	1777.2	1774.9
160°	1812.1	1813.4	1814.8	1814.6	1812.9	1811.2	1809.6	1807.9
162.5°	1840.7	1842.3	1843.9	1843.7	1841.8	1839.8	1837.9	1835.8
165°	1879.1	1880.5	1881.8	1881.5	1879.5	1877.4	1875.4	1873.3
167.5°	1907.5	1909.6	1911.6	1911.6	1909.5	1907.4	1905.3	1903.2
170°	1924.6	1926.6	1928.6	1928.5	1926.1	1923.8	1921.4	1919.0
172.5°	1936.8	1938.8	1940.9	1940.9	1938.7	1936.6	1934.5	1932.5
175°	1950.6	1952.6	1954.6	1954.4	1952.1	1949.6	1947.3	1944.9
177.5°	1956.7	1958.3	1959.9	1959.8	1957.9	1956.0	1954.1	1952.3
180°	1957.1	1957.1	1957.1	1957.1	1957.1	1957.1	1957.1	1957.1

(END OF REPORT)