

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: P333487-840

Luminaire Tested: **S125DIW-S1270D1560U840-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333487-840  
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-S1270D1560U840-4F0-1E-UDD-D1  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 1270 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: 10439.7 lumens  
Efficiency: N/A  
Efficacy: 125.9 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

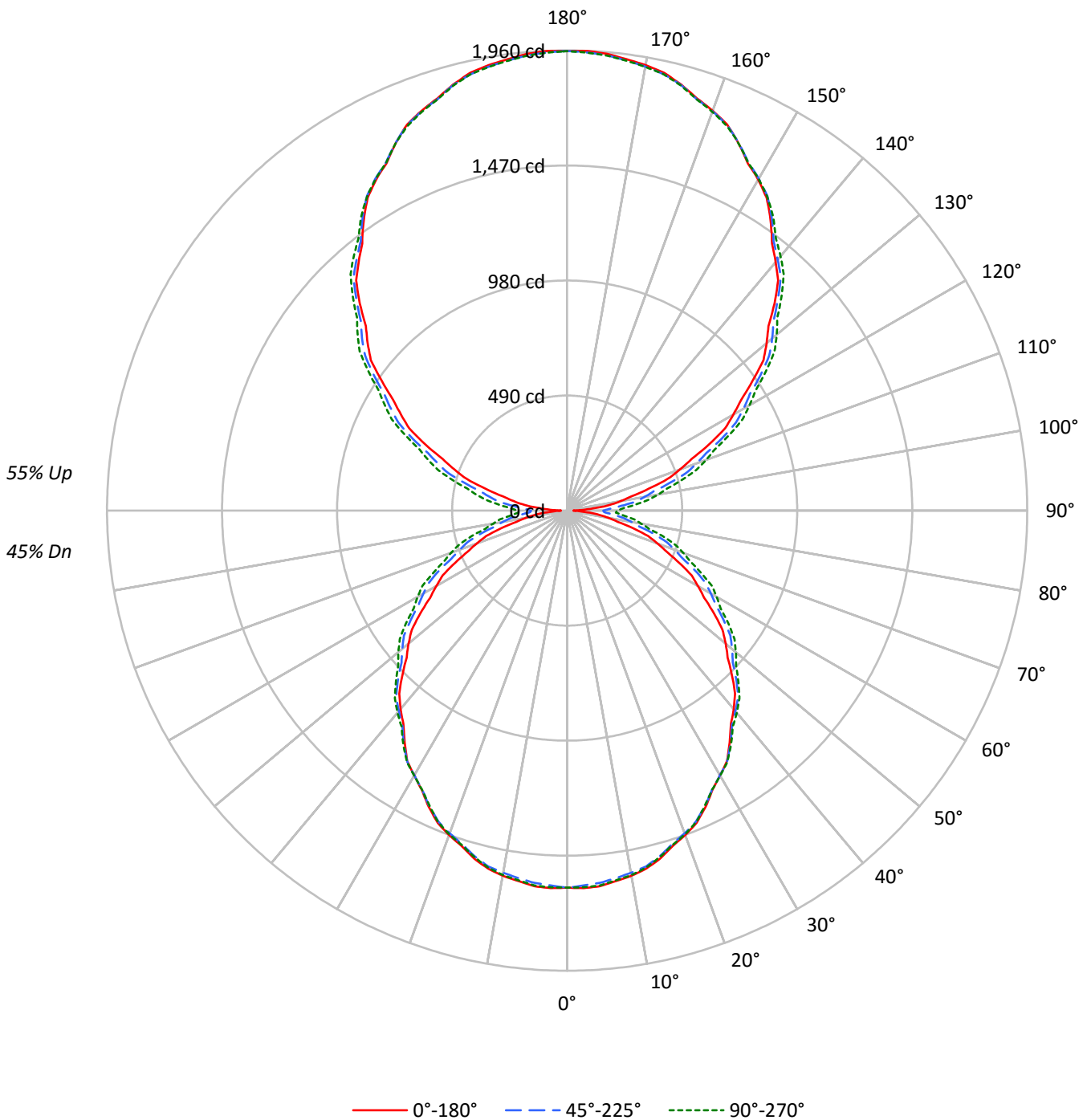
Input Watts (W): 82.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	45
1	96	91	87	84	88	84	80	77	69	67	65	56	55	53	44	43	42	36
2	87	79	73	68	79	73	67	63	60	56	53	49	46	44	39	37	35	30
3	79	70	62	56	72	64	57	52	53	48	44	43	40	37	34	31	29	25
4	72	61	53	47	66	56	49	44	47	42	37	38	34	31	30	27	25	21
5	66	55	46	40	60	50	43	37	42	36	32	34	30	27	27	24	22	18
6	61	49	41	35	56	45	38	32	38	32	28	31	27	23	25	21	19	16
7	56	44	36	30	51	41	33	28	34	29	24	28	24	21	22	19	17	14
8	52	40	32	27	48	37	30	25	31	26	22	26	21	18	21	17	15	13
9	49	36	29	24	44	34	27	22	28	23	19	24	19	16	19	16	14	11
10	45	33	26	21	42	31	24	20	26	21	17	22	18	15	18	15	12	10

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

	0°	45°	90°
0°	10372	10372	10372
5°	10393	10181	10213
10°	10318	9998	9984
15°	10197	9781	9692
20°	10031	9512	9401
25°	9834	9224	9042
30°	9595	8907	8715
35°	9372	8616	8417
40°	9145	8310	8116
45°	8889	8048	7849
50°	8644	7763	7614
55°	8351	7495	7337
60°	8029	7187	7054
65°	7692	6868	6736
70°	7312	6430	6408
75°	6707	6007	6007
80°	5917	5497	5569
85°	5183	5154	5432



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	151.9	1.5
10°-20°	431.1	4.1
20°-30°	641.1	6.1
30°-40°	759.4	7.3
40°-50°	785.2	7.5
50°-60°	723.3	6.9
60°-70°	584.7	5.6
70°-80°	391.6	3.8
80°-90°	207.3	2.0
90°-100°	245.0	2.3
100°-110°	471.1	4.5
110°-120°	711.9	6.8
120°-130°	894.8	8.6
130°-140°	980.8	9.4
140°-150°	950.4	9.1
150°-160°	795.9	7.6
160°-170°	529.1	5.1
170°-180°	185.2	1.8
0°-30°	1224.1	11.7
0°-40°	1983.5	19.0
0°-60°	3491.9	33.4
0°-90°	4675.5	44.8
90°-120°	1428.1	13.7
90°-150°	4254.1	40.7
90°-180°	5764.0	55.2
0°-180°	10439.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1606	1606	1606	1606	1606	
5°	1606	1602	1592	1604	1603	152
15°	1534	1534	1524	1533	1527	432
25°	1393	1397	1389	1394	1387	641
35°	1206	1216	1212	1217	1217	755
45°	994	1010	1019	1029	1031	766
55°	764	789	814	831	838	682
65°	526	562	600	623	630	522
75°	290	331	381	411	420	307
85°	87	139	194	227	241	92
90°	27	89	154	196	213	22
95°	120	165	232	276	292	122
105°	361	396	451	490	507	386
115°	666	684	727	753	762	658
125°	964	973	1005	1026	1033	863
135°	1249	1257	1269	1289	1291	962
145°	1511	1515	1520	1528	1530	944
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°	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0
2.5°	1609.7	1609.2	1608.6	1608.1	1607.5	1606.3	1604.3	1602.4	1600.4	1598.4	1600.4
5°	1606.0	1605.3	1604.6	1603.9	1603.2	1601.6	1599.1	1596.7	1594.3	1591.9	1594.6
7.5°	1591.9	1591.5	1591.2	1590.9	1590.7	1589.3	1586.8	1584.3	1581.8	1579.2	1581.7
10°	1579.2	1579.2	1579.2	1579.2	1579.2	1577.8	1575.0	1572.3	1569.4	1566.6	1569.0
12.5°	1561.6	1561.9	1562.2	1562.5	1562.7	1561.8	1559.5	1557.2	1555.0	1552.8	1554.7
15°	1533.6	1533.9	1534.3	1534.6	1535.0	1533.9	1531.5	1529.0	1526.6	1524.1	1526.2
17.5°	1497.0	1497.7	1498.4	1499.1	1499.9	1498.9	1496.5	1494.1	1491.6	1489.1	1490.8
20°	1470.6	1471.3	1472.0	1472.7	1473.4	1472.5	1470.1	1467.6	1465.1	1462.7	1463.8
22.5°	1440.4	1441.6	1442.9	1444.1	1445.4	1444.6	1441.9	1439.2	1436.4	1433.7	1435.0
25°	1393.4	1394.5	1395.5	1396.5	1397.7	1397.1	1395.0	1392.9	1390.8	1388.7	1390.1
27.5°	1341.2	1342.7	1344.2	1345.7	1347.4	1346.9	1344.5	1342.1	1339.8	1337.4	1338.4
30°	1302.1	1304.2	1306.3	1308.4	1310.5	1310.5	1308.4	1306.3	1304.2	1302.1	1302.8
32.5°	1266.9	1268.7	1270.5	1272.3	1274.1	1274.2	1272.7	1271.2	1269.6	1268.1	1268.8
35°	1206.1	1208.5	1210.9	1213.5	1215.9	1216.6	1215.5	1214.5	1213.5	1212.3	1213.5
37.5°	1145.3	1147.5	1149.7	1152.1	1154.3	1155.2	1154.9	1154.5	1154.2	1153.8	1155.2
40°	1103.7	1106.5	1109.3	1112.2	1114.9	1116.1	1115.8	1115.4	1115.1	1114.8	1116.1
42.5°	1058.3	1062.0	1065.6	1069.2	1073.0	1075.1	1075.9	1076.7	1077.4	1078.2	1079.8
45°	993.5	997.3	1001.2	1005.0	1008.9	1011.7	1013.5	1015.2	1016.9	1018.7	1021.2
47.5°	927.1	930.6	934.2	937.8	941.3	944.6	947.7	950.7	953.6	956.6	960.3
50°	881.7	885.6	889.4	893.2	897.2	901.0	904.8	908.7	912.5	916.4	920.2
52.5°	833.8	838.6	843.2	847.9	852.6	857.3	862.0	866.7	871.3	876.1	880.2
55°	763.7	769.2	774.9	780.4	786.0	791.6	797.2	802.8	808.4	814.1	817.9
57.5°	691.9	698.5	705.3	712.0	718.7	725.3	731.7	738.1	744.6	751.0	755.5
60°	644.0	651.0	657.9	665.0	672.0	678.9	686.0	693.0	699.9	706.9	712.2
62.5°	597.3	604.4	611.4	618.3	625.3	632.7	640.2	647.7	655.3	662.9	668.6
65°	525.8	533.9	542.0	550.1	558.1	566.3	574.7	583.1	591.5	599.9	605.1
67.5°	458.5	466.3	474.0	481.8	489.6	497.8	506.2	514.8	523.3	531.9	538.3
70°	409.4	417.4	425.5	433.5	441.5	450.1	459.2	468.4	477.5	486.6	493.2
72.5°	361.5	369.8	378.2	386.5	394.9	403.9	413.8	423.8	433.7	443.7	450.9
75°	289.7	298.8	307.9	317.0	326.1	336.3	347.4	358.6	369.8	381.0	388.0
77.5°	220.8	231.3	241.8	252.3	262.8	273.4	284.2	294.9	305.7	316.5	324.2
80°	177.9	188.4	198.9	209.4	219.9	231.1	243.0	254.9	266.8	278.7	286.4
82.5°	138.9	150.0	161.0	172.1	183.1	194.7	206.9	219.0	231.3	243.4	250.9
85°	86.6	98.2	109.7	121.3	132.8	144.7	156.9	169.2	181.4	193.7	201.4
87.5°	49.4	61.2	72.9	84.6	96.3	108.5	120.8	133.2	145.5	157.9	166.3
90°	26.8	40.6	54.5	68.5	82.3	96.4	110.7	124.9	139.3	153.5	163.2
92.5°	59.5	71.8	84.0	96.2	108.6	122.2	137.3	152.4	167.4	182.6	192.6
95°	119.5	129.3	139.1	148.8	158.5	171.1	186.3	201.7	216.9	232.2	242.3
97.5°	183.1	191.6	200.0	208.4	216.9	229.2	245.4	261.5	277.6	293.8	303.4
100°	230.6	237.9	245.2	252.6	259.9	271.5	287.0	302.6	318.2	333.8	344.2
102.5°	281.7	289.8	298.0	306.1	314.3	324.9	338.0	351.2	364.4	377.5	387.9
105°	361.4	368.7	376.0	383.3	390.6	400.5	413.0	425.6	438.1	450.6	459.6
107.5°	449.7	456.2	462.6	469.1	475.5	484.5	496.1	507.9	519.5	531.1	539.1
110°	510.6	516.4	522.4	528.3	534.1	542.5	553.3	564.1	574.9	585.7	593.4



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	573.9	578.1	582.4	586.6	590.9	598.4	609.3	620.1	630.9	641.7	648.4
115°	665.9	669.6	673.5	677.3	681.1	687.9	697.6	707.4	717.2	727.0	733.0
117.5°	758.1	760.3	762.5	764.8	767.0	772.7	781.9	791.1	800.3	809.6	815.8
120°	816.6	819.3	822.1	824.9	827.6	833.1	841.5	849.9	858.3	866.7	872.6
122.5°	878.7	879.8	880.9	882.0	883.1	888.0	896.7	905.2	913.9	922.6	928.0
125°	964.3	965.9	967.7	969.4	971.0	975.5	982.9	990.2	997.5	1004.9	1009.8
127.5°	1054.1	1054.9	1055.7	1056.5	1057.3	1060.8	1066.9	1073.1	1079.2	1085.3	1090.1
130°	1108.9	1110.2	1111.7	1113.0	1114.3	1117.7	1123.4	1128.9	1134.5	1140.0	1144.6
132.5°	1162.5	1165.2	1167.9	1170.6	1173.4	1176.5	1180.1	1183.8	1187.4	1191.0	1195.6
135°	1249.0	1250.7	1252.3	1254.1	1255.8	1258.0	1260.7	1263.5	1266.3	1269.1	1273.6
137.5°	1330.3	1332.0	1333.7	1335.3	1337.1	1338.9	1340.8	1342.7	1344.6	1346.6	1351.1
140°	1381.5	1383.1	1384.8	1386.5	1388.3	1389.8	1391.1	1392.5	1393.8	1395.2	1399.8
142.5°	1433.8	1435.0	1436.1	1437.2	1438.5	1439.7	1441.0	1442.4	1443.7	1445.1	1448.8
145°	1510.9	1511.9	1512.9	1513.9	1514.9	1515.9	1516.9	1517.9	1518.9	1519.9	1521.8
147.5°	1580.6	1581.3	1582.1	1582.9	1583.6	1584.4	1585.2	1586.0	1586.8	1587.6	1589.0
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°	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0
2.5°	1602.4	1604.3	1606.3	1607.1	1606.8	1606.6	1606.3	1606.0
5°	1597.4	1600.2	1603.1	1604.3	1603.9	1603.6	1603.2	1602.9
7.5°	1584.1	1586.6	1589.0	1590.0	1589.7	1589.3	1589.0	1588.6
10°	1571.6	1574.0	1576.4	1577.5	1577.1	1576.8	1576.4	1576.1
12.5°	1556.5	1558.4	1560.3	1560.8	1559.9	1559.0	1558.1	1557.2
15°	1528.3	1530.5	1532.5	1532.9	1531.5	1530.0	1528.6	1527.2
17.5°	1492.4	1494.0	1495.6	1496.0	1495.1	1494.3	1493.5	1492.6
20°	1464.8	1465.8	1466.9	1467.4	1467.4	1467.4	1467.4	1467.4
22.5°	1436.4	1437.7	1439.1	1439.3	1438.5	1437.6	1436.7	1435.9
25°	1391.5	1392.9	1394.3	1394.1	1392.4	1390.6	1388.9	1387.2
27.5°	1339.4	1340.3	1341.3	1341.5	1340.8	1340.2	1339.6	1339.0
30°	1303.5	1304.2	1304.9	1305.0	1304.7	1304.3	1304.0	1303.6
32.5°	1269.5	1270.2	1270.9	1271.1	1270.7	1270.4	1270.0	1269.7
35°	1214.5	1215.5	1216.6	1217.1	1217.1	1217.1	1217.1	1217.1
37.5°	1156.6	1158.0	1159.4	1160.0	1159.8	1159.7	1159.6	1159.4
40°	1117.5	1118.9	1120.3	1121.4	1122.1	1122.8	1123.5	1124.2
42.5°	1081.6	1083.3	1084.9	1085.8	1086.0	1086.1	1086.3	1086.4
45°	1023.6	1026.0	1028.4	1029.9	1030.3	1030.6	1031.0	1031.3
47.5°	963.8	967.3	971.0	973.1	973.9	974.6	975.4	976.2
50°	924.0	927.9	931.8	934.2	935.2	936.3	937.4	938.4
52.5°	884.3	888.5	892.5	895.0	895.8	896.6	897.4	898.1
55°	821.7	825.6	829.4	832.0	833.4	834.9	836.3	837.7
57.5°	759.8	764.3	768.7	771.4	772.4	773.5	774.6	775.6
60°	717.4	722.7	727.9	731.0	732.2	733.2	734.3	735.3
62.5°	674.5	680.2	686.1	689.6	690.9	692.4	693.7	695.0
65°	610.4	615.6	620.9	624.2	625.6	627.0	628.4	629.8
67.5°	544.6	551.0	557.3	561.4	563.2	565.0	566.9	568.8
70°	499.8	506.4	513.1	517.5	519.6	521.7	523.8	525.8
72.5°	458.1	465.3	472.5	476.9	478.5	480.0	481.5	483.0
75°	395.1	402.0	409.0	413.4	415.2	416.9	418.7	420.4
77.5°	331.8	339.5	347.3	351.8	353.3	354.6	356.0	357.4
80°	294.1	301.7	309.5	314.1	315.4	316.8	318.2	319.6
82.5°	258.2	265.7	273.1	278.0	280.5	283.1	285.6	288.1
85°	209.0	216.7	224.5	229.7	232.5	235.3	238.1	240.9
87.5°	174.7	183.1	191.5	197.0	199.7	202.3	204.9	207.6
90°	173.0	182.7	192.5	199.0	202.5	206.0	209.4	212.9
92.5°	202.6	212.6	222.6	229.1	232.4	235.5	238.7	242.0
95°	252.4	262.4	272.5	279.0	282.2	285.3	288.4	291.5
97.5°	313.0	322.6	332.1	338.3	341.1	343.9	346.7	349.4
100°	354.6	365.0	375.4	381.9	384.8	387.5	390.3	393.0
102.5°	398.3	408.7	419.0	425.8	428.8	431.8	434.8	438.0
105°	468.7	477.7	486.8	492.9	496.4	499.9	503.3	506.9
107.5°	546.9	554.9	562.9	567.8	570.0	572.1	574.2	576.3
110°	601.1	608.7	616.4	621.3	623.4	625.5	627.6	629.8





TEST NUMBER: P333487-840

CATALOG NUMBER: S125DIW-S1270D1560U840-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	655.3	662.2	669.0	673.4	675.2	677.0	678.8	680.6
115°	738.9	744.9	750.8	754.7	756.4	758.2	759.9	761.7
117.5°	822.0	828.2	834.5	838.1	839.1	840.1	841.1	842.2
120°	878.6	884.5	890.5	893.8	894.5	895.3	896.1	896.8
122.5°	933.3	938.8	944.1	947.4	948.4	949.4	950.4	951.4
125°	1014.7	1019.7	1024.5	1027.7	1029.2	1030.6	1032.0	1033.4
127.5°	1095.0	1099.8	1104.7	1107.8	1109.1	1110.5	1111.9	1113.2
130°	1149.2	1153.8	1158.3	1161.1	1162.2	1163.3	1164.4	1165.4
132.5°	1200.2	1204.8	1209.3	1211.8	1212.3	1212.8	1213.5	1214.0
135°	1278.2	1282.7	1287.3	1289.8	1290.2	1290.6	1290.9	1291.3
137.5°	1355.6	1360.2	1364.7	1366.9	1366.5	1366.2	1365.9	1365.6
140°	1404.2	1408.8	1413.3	1415.4	1415.1	1414.8	1414.5	1414.2
142.5°	1452.5	1456.1	1459.9	1461.6	1461.3	1461.0	1460.7	1460.4
145°	1523.5	1525.2	1527.0	1528.0	1528.4	1528.8	1529.2	1529.6
147.5°	1590.3	1591.7	1593.1	1593.0	1591.2	1589.6	1587.9	1586.3
150°	1632.7	1632.7	1632.7	1632.5	1632.2	1631.8	1631.5	1631.2
152.5°	1673.3	1674.2	1675.0	1674.8	1673.6	1672.4	1671.3	1670.2
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)