

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: P333613-840

Luminaire Tested: **S125RDIP-S1270D365U840-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333613-840  
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: S125RDIP-S1270D365U840-4F0-1E-UDD-F  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1270 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 365 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6404.6 lumens  
Efficiency: N/A  
Efficacy: 128.6 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25  
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')  
CIE Type: Semi-Direct

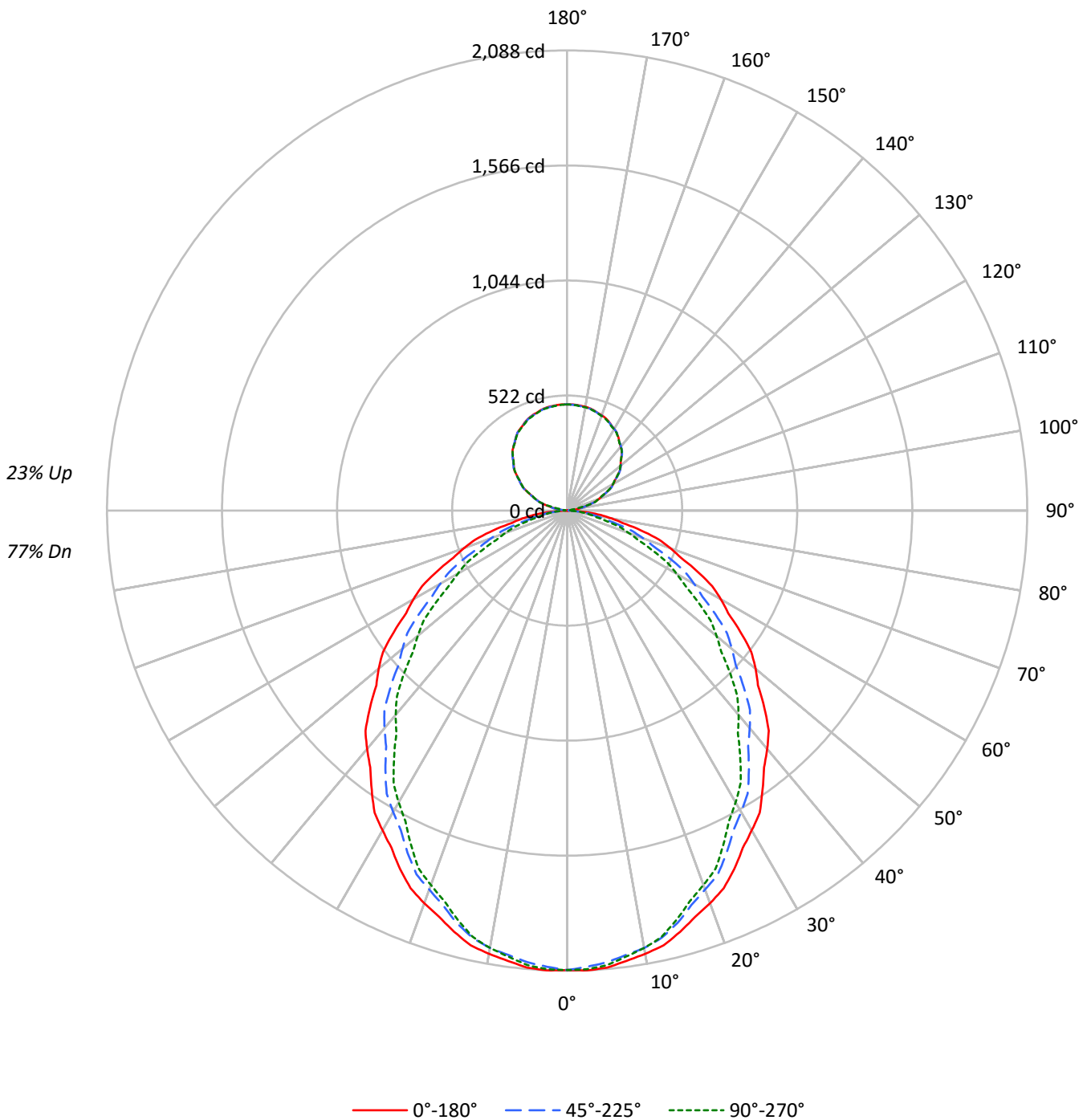
Input Watts (W): 49.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	50	30	10	50	30	10	0		
RCR																										
0	114	114	114	114	108	108	108	108	98	98	98	89	89	89	81	81	81	77								
1	104	100	96	92	99	95	92	89	87	84	82	79	77	75	72	71	69	66								
2	95	88	81	76	90	84	78	73	77	72	68	70	66	63	64	61	59	55								
3	87	77	70	64	83	74	67	62	68	62	58	62	58	54	57	53	50	47								
4	80	69	61	54	76	66	59	53	61	54	50	56	51	47	51	47	44	41								
5	74	62	53	47	70	59	51	46	54	48	43	50	45	41	46	42	38	36								
6	68	56	47	41	65	53	46	40	49	43	38	45	40	36	42	37	34	31								
7	63	50	42	36	60	48	41	35	45	38	34	42	36	32	38	34	30	28								
8	59	46	38	32	56	44	37	32	41	35	30	38	33	29	35	31	27	25								
9	55	42	34	29	52	41	33	29	38	32	27	35	30	26	33	28	25	23								
10	51	39	31	26	49	38	31	26	35	29	25	33	27	24	30	26	22	21								

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

	0°	45°	90°
0°	13464	13464	13464
5°	13494	13341	13422
10°	13392	13217	13217
15°	13233	12948	12843
20°	13029	12575	12423
25°	12790	12207	11938
30°	12493	11777	11401
35°	12191	11334	10800
40°	11907	10871	10208
45°	11562	10355	9563
50°	11216	9792	8890
55°	10815	9254	8173
60°	10413	8603	7403
65°	9938	7844	6521
70°	9396	6898	5620
75°	8644	5814	4674
80°	7613	4567	3924
85°	6417	3735	3505



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	196.0	3.1
10°-20°	547.8	8.6
20°-30°	794.4	12.4
30°-40°	905.3	14.1
40°-50°	882.5	13.8
50°-60°	742.8	11.6
60°-70°	520.7	8.1
70°-80°	267.7	4.2
80°-90°	68.6	1.1
90°-100°	17.5	0.3
100°-110°	107.8	1.7
110°-120°	195.6	3.1
120°-130°	251.0	3.9
130°-140°	270.0	4.2
140°-150°	253.4	4.0
150°-160°	205.0	3.2
160°-170°	132.6	2.1
170°-180°	45.7	0.7
0°-30°	1538.2	24.0
0°-40°	2443.5	38.2
0°-60°	4068.9	63.5
0°-90°	4925.9	76.9
90°-120°	321.0	5.0
90°-150°	1095.4	17.1
90°-180°	1479.0	23.1
0°-180°	6404.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2085	2085	2085	2085	2085	
5°	2082	2075	2058	2073	2070	197
15°	1979	1968	1937	1934	1921	558
25°	1795	1769	1713	1693	1675	826
35°	1546	1507	1438	1393	1370	968
45°	1266	1218	1134	1073	1047	976
55°	960	908	822	754	726	859
65°	650	595	513	452	427	644
75°	346	298	233	200	187	367
85°	87	59	50	49	47	97
90°	0	3	6	7	9	5
95°	20	19	6	7	8	26
105°	105	106	106	106	106	111
115°	197	199	199	198	196	195
125°	280	283	283	281	280	250
135°	350	351	351	350	348	269
145°	405	406	406	406	404	253
155°	446	444	445	446	443	206
165°	471	469	469	471	468	133
175°	482	480	480	482	479	46
180°	482	482	482	482	482	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2084.7	2084.7	2084.7	2084.7	2084.7	2084.7	2084.7	2084.7	2084.7	2084.7	2084.7
2.5°	2088.4	2087.6	2086.7	2085.9	2085.1	2083.3	2080.4	2077.6	2074.9	2072.0	2074.9
5°	2081.5	2080.1	2078.7	2077.3	2075.9	2073.3	2069.4	2065.6	2061.7	2057.9	2061.3
7.5°	2061.0	2059.7	2058.4	2057.0	2055.7	2052.8	2048.1	2043.5	2038.9	2034.3	2036.7
10°	2042.1	2041.0	2040.0	2039.0	2037.9	2035.0	2030.0	2025.2	2020.2	2015.4	2016.4
12.5°	2020.7	2019.4	2018.0	2016.7	2015.4	2011.4	2004.9	1998.3	1991.7	1985.1	1985.9
15°	1979.1	1977.0	1975.0	1972.9	1970.8	1966.0	1958.6	1951.4	1944.0	1936.6	1936.3
17.5°	1932.2	1929.0	1925.8	1922.6	1919.3	1913.1	1903.9	1894.6	1885.4	1876.1	1874.4
20°	1895.7	1892.2	1888.6	1885.2	1881.7	1874.3	1863.2	1852.0	1840.8	1829.6	1827.9
22.5°	1855.4	1851.9	1848.4	1844.9	1841.4	1833.8	1822.0	1810.3	1798.5	1786.8	1783.3
25°	1794.9	1789.7	1784.4	1779.2	1773.9	1764.8	1751.9	1739.0	1726.0	1713.0	1708.5
27.5°	1725.7	1719.3	1712.9	1706.6	1700.2	1690.1	1676.2	1662.3	1648.5	1634.7	1628.3
30°	1675.3	1668.6	1661.9	1655.4	1648.7	1638.0	1623.3	1608.6	1593.9	1579.2	1571.1
32.5°	1626.2	1618.4	1610.6	1602.9	1595.1	1583.7	1568.7	1553.8	1538.7	1523.8	1514.9
35°	1546.2	1537.7	1529.3	1521.0	1512.6	1500.5	1484.7	1469.1	1453.3	1437.5	1427.3
37.5°	1467.7	1457.5	1447.3	1437.1	1426.8	1413.6	1397.5	1381.2	1364.9	1348.7	1336.6
40°	1412.3	1401.8	1391.3	1380.8	1370.4	1356.7	1339.9	1323.1	1306.3	1289.5	1276.3
42.5°	1354.4	1343.6	1332.8	1322.0	1311.3	1297.2	1279.9	1262.5	1245.2	1227.8	1215.1
45°	1265.9	1255.8	1245.6	1235.5	1225.3	1210.6	1191.3	1172.2	1152.9	1133.7	1119.6
47.5°	1174.3	1163.6	1152.9	1142.2	1131.5	1116.4	1097.0	1077.6	1058.2	1038.8	1024.4
50°	1116.3	1104.8	1093.2	1081.7	1070.2	1054.4	1034.4	1014.5	994.5	974.6	959.9
52.5°	1053.3	1041.5	1029.7	1017.8	1006.0	990.7	971.9	953.1	934.2	915.4	899.6
55°	960.5	949.3	938.1	926.9	915.6	900.3	880.7	861.1	841.5	821.9	806.2
57.5°	866.6	854.6	842.6	830.7	818.7	803.3	784.5	765.5	746.6	727.7	712.4
60°	806.2	793.9	781.6	769.4	757.2	741.5	722.7	703.8	684.9	666.0	650.7
62.5°	741.9	730.2	718.5	706.8	695.2	679.7	660.6	641.4	622.2	603.0	588.8
65°	650.3	638.3	626.5	614.6	602.7	587.4	569.0	550.4	531.8	513.3	499.3
67.5°	559.3	547.3	535.4	523.6	511.7	496.9	479.1	461.3	443.5	425.8	412.9
70°	497.6	485.6	473.7	461.8	450.0	435.3	417.8	400.3	382.7	365.3	354.5
72.5°	437.1	425.5	413.8	402.2	390.6	376.6	360.2	343.9	327.5	311.1	301.1
75°	346.4	335.9	325.4	314.9	304.4	291.9	277.1	262.5	247.7	233.0	225.3
77.5°	256.3	247.9	239.5	231.2	222.8	212.7	200.9	189.1	177.4	165.6	160.3
80°	204.7	196.3	187.9	179.5	171.1	162.0	152.2	142.4	132.6	122.8	119.7
82.5°	154.3	146.7	139.2	131.6	124.1	116.9	110.2	103.5	96.7	90.1	88.6
85°	86.6	80.3	74.0	67.7	61.4	57.4	55.6	53.9	52.1	50.4	50.0
87.5°	29.1	27.2	25.3	23.5	21.7	20.7	20.5	20.4	20.2	20.0	20.1
90°	0.4	1.0	1.6	2.2	2.9	3.5	4.0	4.6	5.2	5.8	6.1
92.5°	5.5	5.0	4.6	4.1	3.7	3.7	4.2	4.7	5.3	5.8	6.1
95°	20.3	20.1	19.9	19.6	19.4	17.8	14.7	11.7	8.7	5.8	6.1
97.5°	42.5	42.9	43.3	43.7	44.2	41.4	35.4	29.5	23.5	17.6	15.3
100°	59.6	59.9	60.1	60.3	60.6	60.8	61.2	61.5	61.8	62.1	50.3
102.5°	77.1	77.4	77.7	78.0	78.3	78.5	78.7	78.9	79.1	79.3	77.1
105°	104.9	105.2	105.6	105.9	106.2	106.3	106.3	106.3	106.3	106.3	106.3
107.5°	133.9	133.9	133.9	133.9	133.9	134.0	134.2	134.3	134.5	134.6	134.6
110°	152.8	152.8	152.8	152.8	152.8	152.9	153.0	153.2	153.3	153.5	153.3



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	170.5	170.7	170.9	171.1	171.3	171.4	171.5	171.6	171.7	171.8	171.5
115°	197.0	197.4	197.8	198.2	198.6	198.8	198.9	199.0	199.1	199.1	198.8
117.5°	224.5	224.5	224.5	224.5	224.5	224.6	224.9	225.2	225.5	225.8	225.4
120°	241.7	241.6	241.6	241.5	241.4	241.5	241.7	241.9	242.2	242.4	242.3
122.5°	256.8	257.1	257.4	257.7	258.0	258.2	258.3	258.4	258.5	258.6	258.5
125°	280.2	280.7	281.3	281.9	282.5	282.8	282.8	282.8	282.8	282.8	282.4
127.5°	302.6	303.0	303.4	303.8	304.2	304.4	304.3	304.3	304.2	304.2	304.0
130°	316.3	316.7	317.1	317.5	317.9	318.1	318.2	318.2	318.3	318.4	318.2
132.5°	330.0	330.4	330.9	331.3	331.8	331.9	331.8	331.6	331.4	331.2	331.2
135°	349.5	349.9	350.4	350.9	351.3	351.5	351.3	351.2	351.0	350.9	350.7
137.5°	367.4	367.8	368.2	368.6	369.0	369.2	369.0	368.9	368.7	368.6	368.6
140°	379.1	379.3	379.4	379.6	379.7	379.8	379.7	379.6	379.5	379.5	379.6
142.5°	389.7	389.8	389.9	389.9	390.0	390.1	390.3	390.4	390.5	390.6	390.6
145°	405.2	405.4	405.5	405.7	405.8	405.9	405.9	405.9	405.9	405.9	406.0
147.5°	418.7	418.7	418.7	418.6	418.6	418.6	418.7	418.8	418.9	419.0	419.1
150°	427.3	427.2	427.0	426.8	426.7	426.7	426.8	427.0	427.2	427.3	427.5
152.5°	435.6	435.3	434.8	434.5	434.1	434.0	434.2	434.4	434.5	434.7	434.8
155°	446.3	445.8	445.2	444.7	444.3	444.1	444.3	444.4	444.6	444.7	445.0
157.5°	454.4	454.1	453.8	453.5	453.3	453.1	453.1	453.2	453.2	453.2	453.4
160°	460.1	459.7	459.2	458.7	458.3	458.1	458.1	458.2	458.3	458.4	458.7
162.5°	464.7	464.2	463.7	463.2	462.8	462.6	462.7	462.7	462.8	462.9	463.3
165°	470.8	470.4	469.9	469.4	469.0	468.8	468.8	468.9	469.0	469.1	469.5
167.5°	475.4	474.9	474.4	473.9	473.4	473.2	473.3	473.4	473.5	473.5	474.1
170°	478.0	477.5	476.9	476.4	475.7	475.5	475.6	475.6	475.7	475.8	476.5
172.5°	479.7	479.2	478.6	478.1	477.5	477.3	477.4	477.6	477.7	477.9	478.4
175°	481.5	481.1	480.6	480.1	479.7	479.5	479.5	479.6	479.7	479.8	480.4
177.5°	482.4	482.0	481.6	481.3	480.9	480.7	480.8	480.9	480.9	481.0	481.4
180°	481.5	481.5	481.5	481.5	481.5	481.5	481.5	481.5	481.5	481.5	481.5



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2084.7	2084.7	2084.7	2084.7	2084.7	2084.7	2084.7	2084.7
2.5°	2077.6	2080.4	2083.3	2084.5	2084.3	2084.0	2083.7	2083.4
5°	2064.9	2068.4	2071.8	2073.3	2072.5	2071.8	2071.1	2070.4
7.5°	2039.1	2041.6	2044.1	2044.9	2044.1	2043.4	2042.6	2041.8
10°	2017.4	2018.5	2019.5	2019.5	2018.5	2017.4	2016.4	2015.4
12.5°	1986.7	1987.4	1988.2	1987.8	1986.2	1984.6	1983.0	1981.4
15°	1935.9	1935.6	1935.2	1933.5	1930.4	1927.2	1924.0	1920.9
17.5°	1872.7	1870.9	1869.2	1867.0	1864.4	1861.8	1859.3	1856.6
20°	1826.0	1824.3	1822.6	1820.1	1816.9	1813.8	1810.7	1807.6
22.5°	1779.9	1776.5	1773.0	1770.0	1767.5	1764.8	1762.2	1759.7
25°	1703.9	1699.4	1694.9	1690.6	1686.8	1682.9	1679.1	1675.3
27.5°	1621.9	1615.6	1609.2	1604.2	1600.4	1596.7	1593.0	1589.3
30°	1563.2	1555.1	1547.0	1541.5	1538.3	1535.1	1532.0	1528.8
32.5°	1506.0	1497.1	1488.2	1481.8	1477.8	1473.8	1469.9	1465.8
35°	1417.2	1407.0	1396.9	1389.4	1384.5	1379.6	1374.7	1369.8
37.5°	1324.3	1312.2	1300.0	1291.5	1286.8	1282.0	1277.3	1272.5
40°	1262.9	1249.6	1236.4	1227.6	1223.4	1219.2	1215.0	1210.8
42.5°	1202.3	1189.6	1176.9	1167.4	1161.2	1155.1	1148.9	1142.8
45°	1105.6	1091.7	1077.6	1068.0	1062.8	1057.5	1052.3	1047.0
47.5°	1010.1	995.6	981.2	971.1	965.2	959.5	953.6	947.9
50°	945.2	930.5	915.8	905.8	900.6	895.3	890.1	884.8
52.5°	883.7	868.0	852.1	841.6	836.4	831.1	825.9	820.6
55°	790.4	774.7	758.9	748.2	742.7	737.0	731.4	725.9
57.5°	696.9	681.6	666.1	656.0	651.0	646.0	641.1	636.1
60°	635.2	619.9	604.4	594.1	588.9	583.6	578.3	573.1
62.5°	574.5	560.2	545.9	536.1	530.9	525.6	520.4	515.1
65°	485.3	471.3	457.3	447.7	442.4	437.2	431.9	426.7
67.5°	400.1	387.3	374.6	366.0	361.8	357.6	353.5	349.2
70°	343.6	332.8	321.9	314.4	310.1	306.0	301.7	297.6
72.5°	291.1	281.1	271.0	264.7	261.9	259.1	256.3	253.5
75°	217.6	210.0	202.3	197.1	194.7	192.3	189.9	187.3
77.5°	154.8	149.5	144.1	140.5	138.7	136.8	135.0	133.2
80°	116.5	113.4	110.2	108.3	107.6	106.8	106.2	105.5
82.5°	87.2	85.6	84.2	83.2	82.8	82.4	82.0	81.6
85°	49.7	49.4	49.0	48.7	48.3	48.0	47.6	47.3
87.5°	20.2	20.3	20.4	20.3	20.0	19.8	19.6	19.4
90°	6.5	6.9	7.3	7.6	7.9	8.1	8.3	8.6
92.5°	6.5	6.9	7.3	7.6	7.7	7.8	7.9	8.0
95°	6.5	6.9	7.3	7.5	7.5	7.5	7.5	7.5
97.5°	13.1	10.8	8.6	7.5	7.5	7.5	7.5	7.5
100°	38.5	26.7	14.8	8.8	8.5	8.2	7.8	7.5
102.5°	74.7	72.5	70.3	66.4	61.1	55.7	50.3	44.9
105°	106.3	106.3	106.3	106.3	106.2	106.1	106.1	106.0
107.5°	134.7	134.7	134.7	134.6	134.4	134.1	133.9	133.6
110°	153.0	152.8	152.6	152.5	152.6	152.6	152.7	152.8





TEST NUMBER: P333613-840

CATALOG NUMBER: S125RDIP-S1270D365U840-4F0-1E-UDD-F

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	171.2	170.9	170.6	170.4	170.3	170.2	170.1	170.0
115°	198.5	198.2	197.9	197.5	197.0	196.6	196.1	195.6
117.5°	225.0	224.6	224.2	223.9	223.7	223.5	223.3	223.1
120°	242.1	241.9	241.8	241.5	241.1	240.7	240.2	239.8
122.5°	258.3	258.2	258.0	257.7	257.2	256.8	256.3	255.9
125°	282.1	281.8	281.4	281.1	280.9	280.7	280.4	280.2
127.5°	303.8	303.6	303.5	303.1	302.5	301.8	301.3	300.7
130°	317.9	317.7	317.5	317.1	316.8	316.4	316.0	315.6
132.5°	331.1	331.1	331.0	330.8	330.4	330.0	329.6	329.3
135°	350.6	350.4	350.2	349.9	349.5	349.0	348.5	348.0
137.5°	368.7	368.7	368.7	368.5	368.1	367.7	367.3	366.9
140°	379.8	379.9	380.1	379.9	379.5	379.0	378.5	378.0
142.5°	390.6	390.7	390.7	390.5	390.0	389.5	389.1	388.6
145°	406.1	406.1	406.2	406.0	405.6	405.1	404.6	404.0
147.5°	419.2	419.3	419.4	419.2	418.6	418.0	417.5	416.9
150°	427.6	427.8	427.9	427.7	427.1	426.5	425.8	425.2
152.5°	435.0	435.2	435.4	435.2	434.5	434.0	433.4	432.8
155°	445.2	445.5	445.8	445.6	444.9	444.2	443.6	443.0
157.5°	453.7	453.9	454.2	454.0	453.4	452.7	452.1	451.5
160°	459.0	459.3	459.6	459.5	458.8	458.2	457.6	457.0
162.5°	463.8	464.2	464.7	464.5	463.8	463.1	462.5	461.8
165°	470.0	470.5	471.0	470.9	470.3	469.6	469.0	468.4
167.5°	474.7	475.2	475.8	475.7	475.0	474.3	473.6	472.9
170°	477.1	477.8	478.4	478.4	477.7	477.0	476.2	475.4
172.5°	479.0	479.6	480.1	480.1	479.4	478.6	477.9	477.2
175°	481.0	481.7	482.3	482.3	481.5	480.8	480.1	479.4
177.5°	481.9	482.3	482.7	482.7	482.2	481.7	481.2	480.7
180°	481.5	481.5	481.5	481.5	481.5	481.5	481.5	481.5

(END OF REPORT)