

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: P333621-840

Luminaire Tested: **S125RDIP-S1270D590U840-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333621-840  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-19,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125RDIP-S1270D590U840-4F0-1E-UDD-F4  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1270 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 590 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7069.1 lumens  
Efficiency: N/A  
Efficacy: 128.3 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

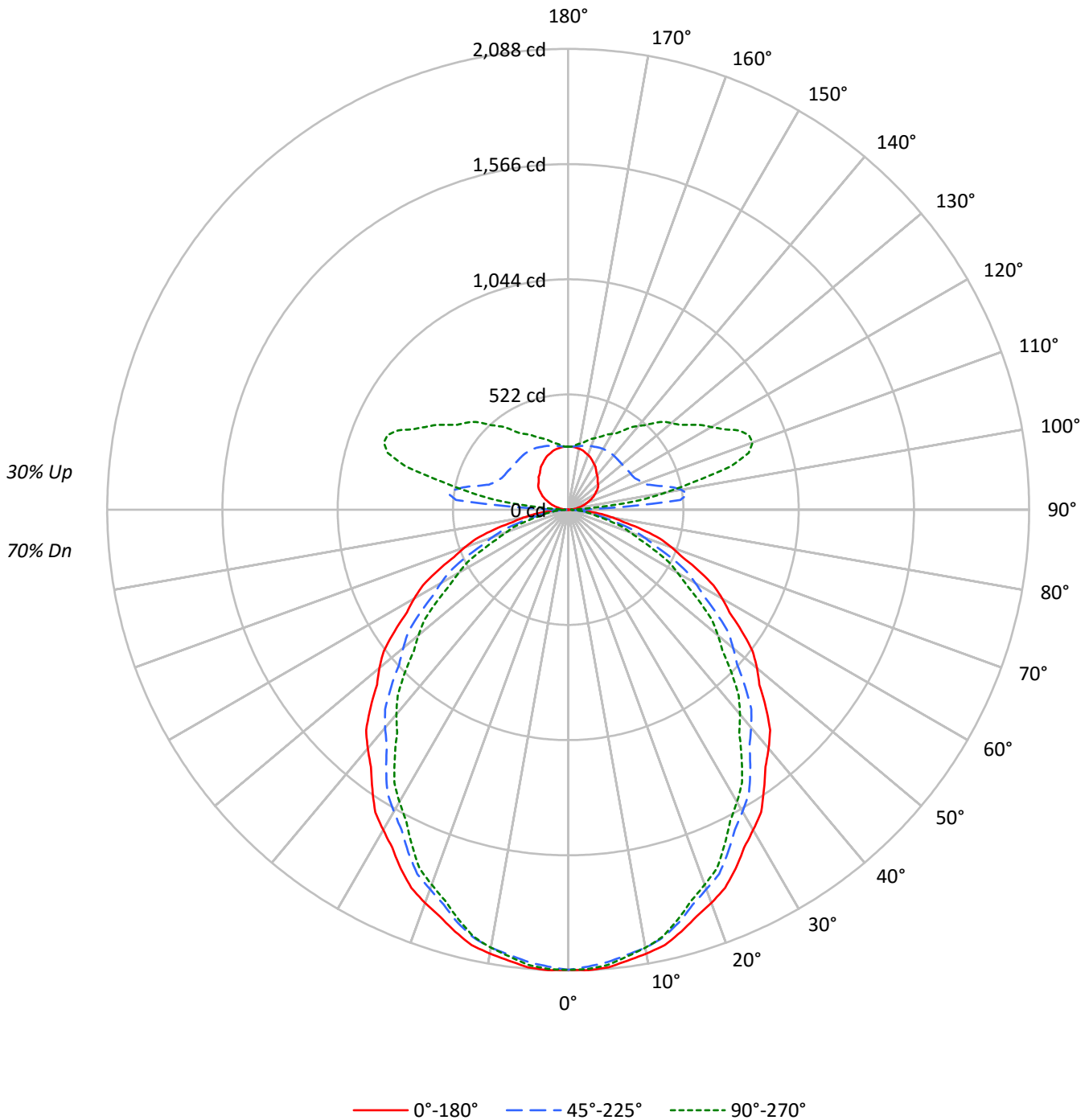
Input Watts (W): 55.1  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	112	112	112	112	106	106	106	106	94	94	94	84	84	84	74	74	74	70
1	103	98	94	91	97	93	90	86	83	81	78	74	72	71	66	65	63	59
2	94	86	80	75	88	82	76	71	73	69	65	66	62	59	59	56	54	50
3	86	76	69	63	81	72	65	60	65	60	55	58	54	51	52	49	46	43
4	79	68	59	53	74	64	57	51	58	52	47	52	47	44	47	43	40	37
5	72	60	52	46	68	58	50	44	52	46	41	47	42	38	42	38	35	32
6	67	54	46	40	63	52	44	39	47	41	36	43	37	34	38	34	31	28
7	62	49	41	35	58	47	40	34	43	37	32	39	34	30	35	31	28	25
8	58	45	37	32	54	43	36	31	39	33	29	36	31	27	32	28	25	23
9	54	41	34	28	51	39	32	28	36	30	26	33	28	24	30	26	23	21
10	50	38	31	26	48	36	30	25	33	27	23	31	26	22	28	24	21	19

**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	2.8
10°-20°	547.8	7.7
20°-30°	794.4	11.2
30°-40°	905.3	12.8
40°-50°	882.5	12.5
50°-60°	742.8	10.5
60°-70°	520.7	7.4
70°-80°	267.7	3.8
80°-90°	69.2	1.0
90°-100°	207.1	2.9
100°-110°	445.2	6.3
110°-120°	417.8	5.9
120°-130°	338.6	4.8
130°-140°	271.7	3.8
140°-150°	205.1	2.9
150°-160°	144.3	2.0
160°-170°	85.1	1.2
170°-180°	27.7	0.4
0°-30°	1538.2	21.8
0°-40°	2443.5	34.6
0°-60°	4068.9	57.6
0°-90°	4926.4	69.7
90°-120°	1070.2	15.1
90°-150°	1885.6	26.7
90°-180°	2143.0	30.3
0°-180°	7069.1	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°	1	5	9	12	13	5
95°	19	56	510	232	135	20
105°	65	91	418	822	763	69
115°	116	140	335	723	850	114
125°	161	189	321	575	670	143
135°	189	227	319	482	556	147
145°	220	252	320	399	439	138
155°	251	270	312	353	368	116
165°	274	282	300	318	323	77
175°	285	285	287	291	290	27
180°	286	286	286	286	286	



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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	27.3	25.5	23.8	22.0	21.2	21.0	20.9	20.8	20.7	20.8
90°	0.6	1.1	2.3	3.4	4.6	5.8	6.4	7.5	8.1	9.2	9.8
92.5°	7.1	8.5	13.3	20.5	30.4	47.3	78.7	131.5	188.7	185.7	150.4
95°	19.0	19.6	24.2	30.5	43.2	69.2	130.8	257.5	416.5	510.4	499.5
97.5°	31.6	32.2	35.4	41.8	53.2	71.9	112.7	205.5	371.9	545.0	632.0
100°	40.3	41.5	43.8	50.1	61.1	78.4	111.8	186.6	331.8	520.2	664.2
102.5°	50.0	50.7	52.5	59.4	69.4	86.1	115.9	178.8	301.3	476.4	644.8
105°	65.1	65.1	68.0	73.7	82.9	99.1	124.4	175.7	271.9	417.7	583.0
107.5°	79.9	81.0	83.7	88.5	98.1	112.6	137.1	181.0	259.4	377.2	519.9
110°	90.5	91.6	93.9	99.1	107.8	122.7	146.3	186.0	255.8	358.3	483.9



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	101.1	102.2	104.0	109.3	117.9	132.4	155.1	192.5	255.8	347.3	457.2
115°	116.3	117.5	119.3	124.4	133.1	147.4	168.7	202.2	257.5	335.3	428.0
117.5°	130.2	131.9	133.8	139.0	148.8	162.7	182.9	213.3	261.3	329.4	410.6
120°	139.4	141.2	143.4	148.7	158.4	172.8	193.0	220.7	265.0	326.6	400.9
122.5°	149.1	150.4	152.2	157.3	168.1	182.5	202.7	228.9	268.2	324.4	392.6
125°	161.3	162.5	165.3	170.5	181.5	196.4	215.4	240.2	273.7	321.4	381.3
127.5°	170.9	172.6	176.3	182.9	194.5	209.4	227.7	250.5	279.7	320.0	371.0
130°	176.8	178.5	183.2	190.7	202.8	217.7	235.6	257.5	283.5	319.1	364.1
132.5°	181.5	183.7	189.1	197.6	210.2	225.1	243.0	263.5	287.6	319.1	358.5
135°	188.9	191.3	198.1	207.4	219.4	235.0	252.9	271.9	293.2	319.1	351.9
137.5°	198.4	200.2	206.6	215.8	227.6	243.7	259.9	278.1	298.4	319.8	346.1
140°	203.9	205.6	212.6	221.8	232.8	248.3	265.0	282.3	300.7	320.3	343.4
142.5°	210.4	211.7	218.1	227.3	237.8	252.5	268.2	284.6	302.1	320.7	341.0
145°	220.0	221.2	226.9	235.0	245.4	258.6	273.7	288.0	303.6	320.3	337.6
147.5°	230.1	230.9	235.8	243.3	252.3	264.0	277.1	290.1	304.2	318.8	334.0
150°	236.2	237.3	241.4	248.8	256.9	266.7	279.4	291.4	304.2	317.4	331.2
152.5°	242.7	243.3	246.9	253.5	261.1	269.9	281.7	292.4	303.7	315.6	328.0
155°	251.2	251.2	254.6	260.3	266.1	274.2	284.0	293.2	302.5	312.3	322.6
157.5°	258.7	258.6	261.5	266.4	271.5	277.5	286.0	293.8	300.9	308.7	317.5
160°	263.9	263.3	265.6	269.6	274.2	279.4	286.9	293.8	299.5	306.5	313.4
162.5°	268.0	267.4	269.7	273.3	277.0	281.2	287.8	293.4	298.2	303.7	309.7
165°	274.2	273.1	274.8	277.6	279.9	283.5	288.0	292.7	296.1	299.5	304.2
167.5°	278.3	277.8	278.8	280.4	282.1	284.2	288.0	291.2	292.9	295.5	298.7
170°	281.1	280.5	281.1	282.3	283.5	285.2	288.0	290.3	291.4	293.2	295.5
172.5°	283.0	282.0	282.5	283.7	284.4	285.2	287.6	289.4	289.6	290.4	292.3
175°	285.2	284.0	284.6	285.2	285.2	285.2	286.9	288.0	287.4	287.4	288.0
177.5°	286.2	285.3	285.3	285.7	285.3	285.3	286.2	286.6	285.7	285.7	286.2
180°	285.7	285.7	285.7	285.7	285.7	285.7	285.7	285.7	285.7	285.7	285.7



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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°	21.0	21.1	21.2	21.3	21.0	20.7	20.6	20.3
90°	10.4	10.9	11.5	12.6	12.6	12.6	13.2	13.2
92.5°	102.1	74.1	55.7	47.3	39.9	38.5	37.7	36.8
95°	414.1	326.6	255.8	207.4	166.5	149.2	144.6	135.4
97.5°	616.8	555.4	486.5	419.1	383.5	351.2	334.6	327.2
100°	708.5	680.3	621.0	561.1	521.3	479.9	458.6	449.3
102.5°	739.4	756.8	728.3	687.8	645.3	615.8	592.7	585.7
105°	721.2	800.1	825.5	819.1	800.7	781.7	770.2	763.3
107.5°	656.2	761.5	826.7	856.7	866.1	866.0	862.1	857.5
110°	608.3	717.8	799.0	848.0	873.8	884.8	888.9	888.9





TEST NUMBER: P333621-840

CATALOG NUMBER: S125RDIP-S1270D590U840-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	570.6	674.5	756.6	814.4	852.2	871.0	881.0	885.1
115°	523.0	612.4	691.3	754.1	799.0	826.7	842.7	850.3
117.5°	492.4	569.4	637.3	695.0	739.9	768.5	784.5	789.1
120°	475.8	544.9	608.3	659.0	701.7	729.3	744.9	749.4
122.5°	463.4	527.5	583.9	631.4	669.3	694.7	710.2	714.4
125°	445.2	504.0	554.2	595.6	627.9	651.6	664.2	669.9
127.5°	426.9	481.7	528.5	567.3	596.5	617.4	629.3	632.0
130°	415.4	466.1	511.0	548.4	577.2	596.2	607.7	611.2
132.5°	403.8	451.3	492.1	528.2	556.9	575.9	586.5	590.5
135°	388.8	428.6	465.4	498.3	523.6	542.6	553.0	556.4
137.5°	376.2	408.3	439.0	466.9	489.5	506.9	516.3	520.2
140°	369.2	396.4	422.8	447.1	468.4	483.3	491.9	494.8
142.5°	363.2	386.2	409.0	430.0	448.1	460.7	468.9	471.3
145°	355.5	373.2	391.1	406.7	420.5	430.3	436.7	439.0
147.5°	348.1	362.5	376.3	388.0	399.0	406.8	410.5	411.5
150°	343.9	356.6	367.5	377.9	386.6	393.4	395.8	396.4
152.5°	339.3	350.6	360.6	368.7	376.0	381.4	383.7	384.4
155°	332.3	341.6	349.6	356.0	361.7	365.8	367.5	368.1
157.5°	325.5	333.1	339.3	344.3	348.7	352.0	353.7	353.6
160°	320.8	326.6	332.3	336.4	340.4	343.4	344.5	343.9
162.5°	315.8	321.1	325.9	329.5	332.6	335.1	335.3	335.2
165°	308.7	312.8	316.3	319.1	321.4	322.6	322.6	322.6
167.5°	302.1	304.8	307.4	309.4	310.6	311.6	311.1	311.0
170°	298.4	300.1	301.8	303.0	304.2	304.8	304.8	304.2
172.5°	294.3	296.0	297.2	297.9	298.2	299.2	298.3	297.7
175°	289.7	289.7	290.9	290.9	290.9	291.4	290.3	289.7
177.5°	286.6	287.1	287.1	287.1	286.6	287.1	285.7	285.7
180°	285.7	285.7	285.7	285.7	285.7	285.7	285.7	285.7

(END OF REPORT)