

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: P333615-830

Luminaire Tested: **S125RDIP-S1270D365U830-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333615-830
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-S1270D365U830-4F0-1E-UDD-F4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1270 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 365 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5836.5 lumens
Efficiency: N/A
Efficacy: 117.2 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

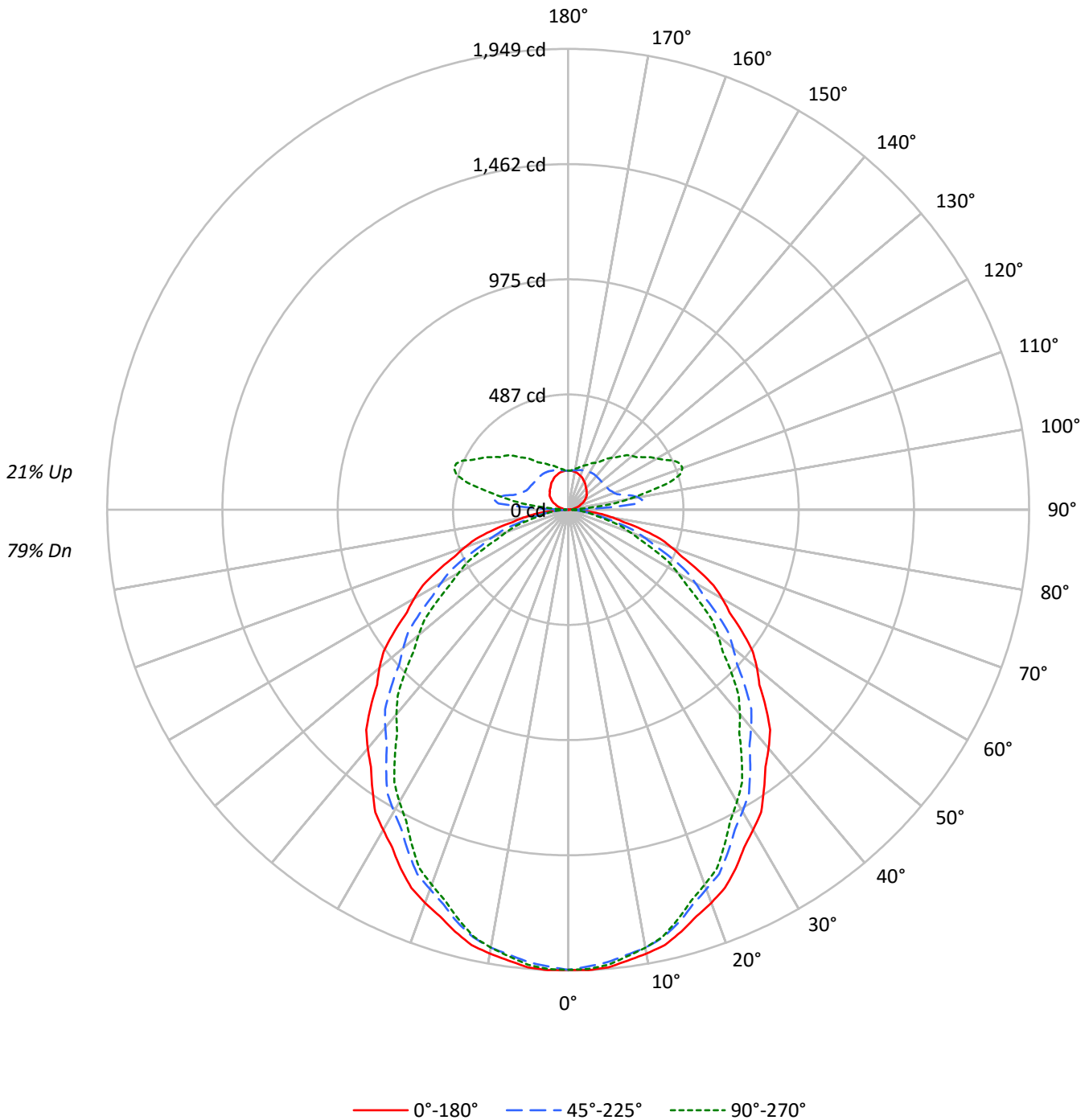
Input Watts (W): 49.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	114	114	114	114	109	109	109	109	99	99	99	91	91	91	83	83	83	79
1	105	100	96	93	100	96	92	89	88	85	83	80	78	76	74	72	71	67
2	96	88	82	76	91	84	79	74	77	73	69	71	67	64	65	62	60	57
3	87	78	70	64	83	75	68	62	69	63	58	63	59	55	58	54	51	48
4	80	69	61	55	76	66	59	53	61	55	50	56	51	47	52	48	45	42
5	74	62	53	47	70	60	52	46	55	49	44	51	46	41	47	43	39	36
6	68	56	47	41	65	54	46	40	50	43	38	46	41	36	43	38	35	32
7	63	51	42	37	60	49	41	36	45	39	34	42	37	32	39	34	31	29
8	59	46	38	33	56	45	37	32	42	35	31	39	33	29	36	31	28	26
9	55	42	35	29	53	41	34	29	38	32	28	36	30	26	33	29	25	23
10	52	39	32	27	49	38	31	26	35	29	25	33	28	24	31	26	23	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12566	12566	12566
5°	12595	12452	12528
10°	12499	12336	12336
15°	12351	12085	11987
20°	12160	11736	11595
25°	11938	11393	11142
30°	11660	10992	10641
35°	11378	10578	10080
40°	11113	10146	9528
45°	10791	9664	8925
50°	10468	9139	8298
55°	10094	8637	7629
60°	9719	8029	6909
65°	9274	7321	6085
70°	8769	6437	5246
75°	8067	5425	4362
80°	7107	4262	3663
85°	5995	3483	3268



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	183.0	3.1
10°-20°	511.3	8.8
20°-30°	741.4	12.7
30°-40°	845.0	14.5
40°-50°	823.6	14.1
50°-60°	693.3	11.9
60°-70°	486.0	8.3
70°-80°	249.8	4.3
80°-90°	64.0	1.1
90°-100°	119.8	2.1
100°-110°	257.4	4.4
110°-120°	241.6	4.1
120°-130°	195.8	3.4
130°-140°	157.1	2.7
140°-150°	118.6	2.0
150°-160°	83.5	1.4
160°-170°	49.2	0.8
170°-180°	16.0	0.3
0°-30°	1435.7	24.6
0°-40°	2280.6	39.1
0°-60°	3797.6	65.1
0°-90°	4597.4	78.8
90°-120°	618.8	10.6
90°-150°	1090.3	18.7
90°-180°	1239.0	21.2
0°-180°	5836.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1946	1946	1946	1946	1946	
5°	1943	1936	1921	1934	1932	184
15°	1847	1837	1808	1805	1793	520
25°	1675	1651	1599	1580	1564	770
35°	1443	1406	1342	1300	1278	903
45°	1182	1137	1058	1001	977	911
55°	896	847	767	703	678	802
65°	607	555	479	422	398	601
75°	323	278	217	186	175	342
85°	81	55	47	46	44	91
90°	0	3	5	7	8	4
95°	11	32	295	134	78	12
105°	38	53	242	476	441	40
115°	67	81	194	418	492	66
125°	93	109	186	332	387	83
135°	109	131	184	279	322	85
145°	127	146	185	231	254	80
155°	145	156	181	204	213	67
165°	158	163	173	184	186	45
175°	165	165	166	168	168	16
180°	165	165	165	165	165	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1945.7	1945.7	1945.7	1945.7	1945.7	1945.7	1945.7	1945.7	1945.7	1945.7	1945.7
2.5°	1949.2	1948.4	1947.6	1946.8	1946.1	1944.4	1941.7	1939.1	1936.5	1933.9	1936.5
5°	1942.8	1941.4	1940.1	1938.8	1937.5	1935.0	1931.5	1927.9	1924.3	1920.7	1923.9
7.5°	1923.6	1922.4	1921.2	1919.9	1918.6	1915.9	1911.6	1907.2	1903.0	1898.7	1900.9
10°	1906.0	1905.0	1904.0	1903.1	1902.1	1899.3	1894.7	1890.2	1885.6	1881.0	1882.0
12.5°	1886.0	1884.8	1883.5	1882.3	1881.0	1877.4	1871.2	1865.1	1858.9	1852.8	1853.5
15°	1847.2	1845.2	1843.3	1841.4	1839.4	1834.9	1828.1	1821.3	1814.4	1807.5	1807.2
17.5°	1803.4	1800.4	1797.4	1794.4	1791.4	1785.6	1777.0	1768.3	1759.7	1751.1	1749.5
20°	1769.3	1766.0	1762.7	1759.5	1756.2	1749.4	1739.0	1728.5	1718.1	1707.6	1706.0
22.5°	1731.7	1728.4	1725.1	1721.9	1718.6	1711.6	1700.5	1689.6	1678.6	1667.6	1664.4
25°	1675.3	1670.4	1665.5	1660.6	1655.7	1647.2	1635.1	1623.1	1610.9	1598.8	1594.6
27.5°	1610.6	1604.7	1598.7	1592.8	1586.9	1577.4	1564.4	1551.5	1538.6	1525.7	1519.8
30°	1563.6	1557.4	1551.1	1545.0	1538.8	1528.8	1515.0	1501.4	1487.6	1473.9	1466.4
32.5°	1517.8	1510.5	1503.3	1496.0	1488.7	1478.1	1464.1	1450.2	1436.2	1422.2	1413.9
35°	1443.1	1435.2	1427.4	1419.6	1411.7	1400.4	1385.7	1371.1	1356.4	1341.7	1332.2
37.5°	1369.9	1360.4	1350.9	1341.3	1331.7	1319.4	1304.3	1289.1	1273.9	1258.8	1247.5
40°	1318.1	1308.3	1298.5	1288.7	1279.0	1266.2	1250.6	1234.9	1219.2	1203.5	1191.2
42.5°	1264.1	1254.1	1244.0	1233.9	1223.9	1210.7	1194.6	1178.4	1162.2	1145.9	1134.1
45°	1181.5	1172.1	1162.5	1153.1	1143.6	1129.9	1111.9	1094.0	1076.0	1058.1	1045.0
47.5°	1096.0	1086.0	1076.0	1066.0	1056.0	1042.0	1023.9	1005.8	987.7	969.6	956.1
50°	1041.9	1031.1	1020.3	1009.6	998.8	984.1	965.4	946.9	928.2	909.6	895.9
52.5°	983.1	972.0	961.0	950.0	939.0	924.6	907.1	889.6	871.9	854.4	839.6
55°	896.5	886.0	875.5	865.1	854.6	840.3	822.0	803.7	785.4	767.1	752.4
57.5°	808.8	797.7	786.5	775.3	764.1	749.8	732.2	714.4	696.8	679.2	664.9
60°	752.4	740.9	729.5	718.1	706.7	692.1	674.5	656.9	639.2	621.6	607.3
62.5°	692.5	681.6	670.6	659.7	648.8	634.4	616.5	598.6	580.7	562.8	549.5
65°	606.9	595.8	584.8	573.6	562.5	548.3	531.0	513.7	496.3	479.1	466.0
67.5°	522.0	510.9	499.7	488.7	477.6	463.7	447.1	430.6	414.0	397.4	385.4
70°	464.4	453.3	442.1	431.0	420.0	406.2	389.9	373.6	357.2	340.9	330.8
72.5°	407.9	397.1	386.3	375.4	364.6	351.5	336.2	320.9	305.7	290.4	281.1
75°	323.3	313.5	303.7	293.9	284.1	272.4	258.6	245.0	231.2	217.4	210.3
77.5°	239.2	231.4	223.6	215.7	207.9	198.5	187.5	176.5	165.6	154.6	149.6
80°	191.1	183.2	175.4	167.5	159.7	151.2	142.0	132.9	123.8	114.6	111.7
82.5°	144.0	137.0	129.9	122.8	115.8	109.1	102.8	96.6	90.3	84.1	82.7
85°	80.9	74.9	69.1	63.2	57.3	53.5	51.9	50.3	48.6	47.0	46.7
87.5°	27.1	25.4	23.7	22.0	20.3	19.3	19.1	19.0	18.9	18.7	18.8
90°	0.4	0.7	1.3	2.0	2.6	3.3	3.7	4.3	4.6	5.4	5.7
92.5°	4.1	4.9	7.7	11.9	17.6	27.3	45.5	76.0	109.1	107.4	86.9
95°	11.0	11.3	13.9	17.6	25.0	40.0	75.6	148.9	240.8	295.1	288.8
97.5°	18.3	18.7	20.5	24.2	30.8	41.6	65.1	118.9	215.1	315.2	365.4
100°	23.3	23.9	25.4	28.9	35.3	45.3	64.7	107.9	191.9	300.8	384.1
102.5°	28.9	29.3	30.3	34.3	40.2	49.9	67.0	103.4	174.3	275.5	372.9
105°	37.6	37.6	39.3	42.6	48.0	57.3	71.9	101.6	157.2	241.5	337.1
107.5°	46.2	46.8	48.4	51.2	56.7	65.1	79.3	104.6	150.1	218.1	300.6
110°	52.3	53.0	54.3	57.3	62.3	71.0	84.6	107.6	147.9	207.2	279.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	58.4	59.1	60.1	63.2	68.1	76.5	89.6	111.3	147.9	200.8	264.4
115°	67.3	68.0	69.0	71.9	76.9	85.3	97.6	116.9	148.9	193.9	247.5
117.5°	75.3	76.3	77.4	80.3	86.1	94.1	105.8	123.3	151.1	190.5	237.4
120°	80.6	81.6	82.9	86.0	91.6	99.9	111.6	127.6	153.3	188.9	231.9
122.5°	86.2	86.9	88.0	91.0	97.2	105.6	117.2	132.3	155.0	187.6	227.1
125°	93.3	94.0	95.6	98.6	104.9	113.6	124.6	138.9	158.3	185.9	220.6
127.5°	98.8	99.8	101.9	105.8	112.4	121.1	131.7	144.9	161.7	185.1	214.5
130°	102.3	103.3	105.9	110.3	117.3	125.9	136.2	148.9	163.9	184.5	210.6
132.5°	104.9	106.2	109.4	114.2	121.5	130.2	140.5	152.4	166.3	184.5	207.4
135°	109.2	110.6	114.6	119.9	127.0	135.9	146.2	157.2	169.6	184.5	203.5
137.5°	114.7	115.7	119.4	124.8	131.7	140.9	150.3	160.8	172.6	184.9	200.1
140°	117.9	118.9	122.9	128.3	134.6	143.5	153.3	163.2	173.9	185.2	198.5
142.5°	121.7	122.3	126.1	131.5	137.5	146.0	155.0	164.6	174.7	185.5	197.2
145°	127.2	127.9	131.2	135.9	141.9	149.6	158.3	166.5	175.5	185.2	195.2
147.5°	133.1	133.5	136.4	140.7	145.9	152.6	160.2	167.8	175.9	184.4	193.1
150°	136.6	137.2	139.6	143.9	148.5	154.2	161.6	168.5	175.9	183.5	191.5
152.5°	140.3	140.7	142.8	146.6	151.0	156.1	162.9	169.1	175.6	182.5	189.6
155°	145.2	145.2	147.2	150.5	153.9	158.5	164.2	169.6	174.8	180.6	186.5
157.5°	149.7	149.6	151.2	154.0	156.9	160.5	165.3	169.8	174.0	178.5	183.6
160°	152.6	152.2	153.5	155.9	158.5	161.6	165.9	169.8	173.2	177.2	181.3
162.5°	155.0	154.7	156.0	158.1	160.1	162.6	166.5	169.7	172.4	175.6	179.1
165°	158.5	157.9	158.9	160.5	161.9	163.9	166.5	169.2	171.3	173.2	175.9
167.5°	161.0	160.6	161.3	162.1	163.1	164.4	166.5	168.4	169.4	170.9	172.8
170°	162.6	162.2	162.6	163.2	163.9	164.9	166.5	167.9	168.5	169.6	170.9
172.5°	163.6	163.1	163.3	164.0	164.4	164.9	166.3	167.4	167.5	168.0	169.0
175°	164.9	164.2	164.6	164.9	164.9	164.9	165.9	166.5	166.3	166.3	166.5
177.5°	165.5	164.9	164.9	165.2	164.9	164.9	165.5	165.8	165.2	165.2	165.5
180°	165.2	165.2	165.2	165.2	165.2	165.2	165.2	165.2	165.2	165.2	165.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1945.7	1945.7	1945.7	1945.7	1945.7	1945.7	1945.7	1945.7
2.5°	1939.1	1941.7	1944.4	1945.5	1945.3	1945.0	1944.7	1944.5
5°	1927.2	1930.5	1933.7	1935.0	1934.4	1933.7	1933.1	1932.4
7.5°	1903.2	1905.5	1907.8	1908.6	1907.8	1907.1	1906.4	1905.7
10°	1882.9	1884.0	1884.9	1884.9	1884.0	1882.9	1882.0	1881.0
12.5°	1854.3	1854.9	1855.7	1855.3	1853.8	1852.3	1850.8	1849.3
15°	1806.9	1806.6	1806.2	1804.6	1801.7	1798.7	1795.7	1792.8
17.5°	1747.9	1746.2	1744.6	1742.6	1740.1	1737.7	1735.3	1732.9
20°	1704.3	1702.7	1701.1	1698.7	1695.8	1692.9	1690.0	1687.1
22.5°	1661.2	1658.0	1654.8	1652.0	1649.6	1647.2	1644.7	1642.4
25°	1590.4	1586.1	1581.9	1577.9	1574.3	1570.7	1567.2	1563.6
27.5°	1513.8	1507.9	1501.9	1497.2	1493.7	1490.3	1486.8	1483.4
30°	1459.0	1451.4	1443.9	1438.7	1435.8	1432.8	1429.8	1426.9
32.5°	1405.6	1397.3	1389.0	1383.0	1379.3	1375.5	1371.9	1368.1
35°	1322.8	1313.2	1303.8	1296.8	1292.2	1287.6	1283.1	1278.5
37.5°	1236.1	1224.7	1213.3	1205.4	1201.0	1196.6	1192.1	1187.7
40°	1178.7	1166.3	1154.0	1145.8	1141.8	1137.9	1134.0	1130.1
42.5°	1122.2	1110.3	1098.4	1089.6	1083.8	1078.1	1072.3	1066.6
45°	1031.9	1018.9	1005.8	996.8	991.9	987.0	982.1	977.2
47.5°	942.7	929.3	915.8	906.3	900.9	895.5	890.0	884.7
50°	882.2	868.5	854.8	845.5	840.6	835.7	830.8	825.9
52.5°	824.8	810.1	795.3	785.5	780.6	775.7	770.8	765.9
55°	737.7	723.0	708.3	698.3	693.1	687.9	682.7	677.5
57.5°	650.4	636.1	621.7	612.3	607.6	602.9	598.3	593.7
60°	592.9	578.5	564.1	554.5	549.6	544.7	539.8	534.9
62.5°	536.2	522.8	509.5	500.4	495.5	490.6	485.7	480.8
65°	453.0	439.9	426.8	417.8	412.9	408.0	403.1	398.2
67.5°	373.4	361.5	349.6	341.6	337.7	333.8	329.9	325.9
70°	320.7	310.6	300.5	293.4	289.5	285.6	281.6	277.8
72.5°	271.7	262.4	253.0	247.0	244.4	241.9	239.2	236.6
75°	203.1	196.0	188.8	184.0	181.7	179.5	177.2	174.8
77.5°	144.5	139.5	134.5	131.1	129.4	127.7	126.0	124.3
80°	108.8	105.8	102.8	101.0	100.4	99.7	99.2	98.5
82.5°	81.3	79.9	78.6	77.7	77.3	76.9	76.5	76.2
85°	46.4	46.1	45.7	45.4	45.1	44.8	44.4	44.1
87.5°	18.9	18.9	18.9	18.9	18.7	18.5	18.3	18.0
90°	6.0	6.3	6.7	7.4	7.4	7.4	7.6	7.6
92.5°	59.0	42.8	32.2	27.3	23.1	22.2	21.8	21.2
95°	239.5	188.9	147.9	119.9	96.2	86.2	83.6	78.3
97.5°	356.7	321.2	281.3	242.3	221.8	203.1	193.5	189.2
100°	409.7	393.4	359.1	324.4	301.4	277.5	265.1	259.9
102.5°	427.5	437.6	421.2	397.8	373.2	356.1	342.7	338.7
105°	417.1	462.7	477.3	473.7	463.0	452.0	445.4	441.4
107.5°	379.5	440.4	478.0	495.4	500.8	500.8	498.5	495.9
110°	351.8	415.1	462.0	490.3	505.3	511.6	514.0	514.0



TEST NUMBER: P333615-830

CATALOG NUMBER: S125RDIP-S1270D365U830-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	329.9	390.0	437.5	470.9	492.8	503.7	509.4	511.9
115°	302.5	354.1	399.7	436.0	462.0	478.0	487.3	491.6
117.5°	284.7	329.2	368.5	401.9	427.8	444.4	453.6	456.3
120°	275.1	315.1	351.8	381.1	405.8	421.7	430.7	433.4
122.5°	268.0	305.0	337.6	365.0	387.1	401.7	410.8	413.1
125°	257.5	291.4	320.5	344.4	363.1	376.7	384.1	387.4
127.5°	246.9	278.5	305.6	328.0	345.0	357.0	363.9	365.4
130°	240.2	269.5	295.5	317.2	333.8	344.8	351.5	353.5
132.5°	233.5	261.0	284.6	305.4	322.1	333.0	339.1	341.4
135°	224.9	247.8	269.2	288.1	302.8	313.8	319.8	321.8
137.5°	217.5	236.1	253.8	269.9	283.0	293.0	298.6	300.8
140°	213.5	229.1	244.5	258.4	270.8	279.5	284.5	286.2
142.5°	210.1	223.3	236.5	248.6	259.1	266.5	271.2	272.6
145°	205.6	215.8	226.2	235.2	243.2	248.8	252.5	253.8
147.5°	201.2	209.6	217.6	224.4	230.7	235.3	237.3	238.0
150°	198.9	206.2	212.5	218.5	223.5	227.5	228.8	229.1
152.5°	196.2	202.7	208.5	213.2	217.4	220.6	221.9	222.3
155°	192.2	197.6	202.2	205.9	209.2	211.5	212.5	212.8
157.5°	188.2	192.6	196.2	199.1	201.7	203.6	204.5	204.4
160°	185.6	188.9	192.2	194.5	196.9	198.5	199.2	198.9
162.5°	182.6	185.7	188.5	190.6	192.4	193.7	193.9	193.8
165°	178.5	180.9	182.9	184.5	185.9	186.5	186.5	186.5
167.5°	174.7	176.3	177.8	179.0	179.6	180.2	179.9	179.8
170°	172.6	173.5	174.6	175.2	175.9	176.3	176.3	175.9
172.5°	170.1	171.2	171.9	172.3	172.4	173.1	172.5	172.1
175°	167.6	167.6	168.2	168.2	168.2	168.5	167.9	167.6
177.5°	165.8	166.0	166.0	166.0	165.8	166.0	165.2	165.2
180°	165.2	165.2	165.2	165.2	165.2	165.2	165.2	165.2

(END OF REPORT)