

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: P333597

Luminaire Tested: **S125RDIP-S1090D810U835-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333597
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-S1090D810U835-4F0-1E-UDD-F4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 810 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7133.0 lumens
Efficiency: N/A
Efficacy: 131.1 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: General Diffuse

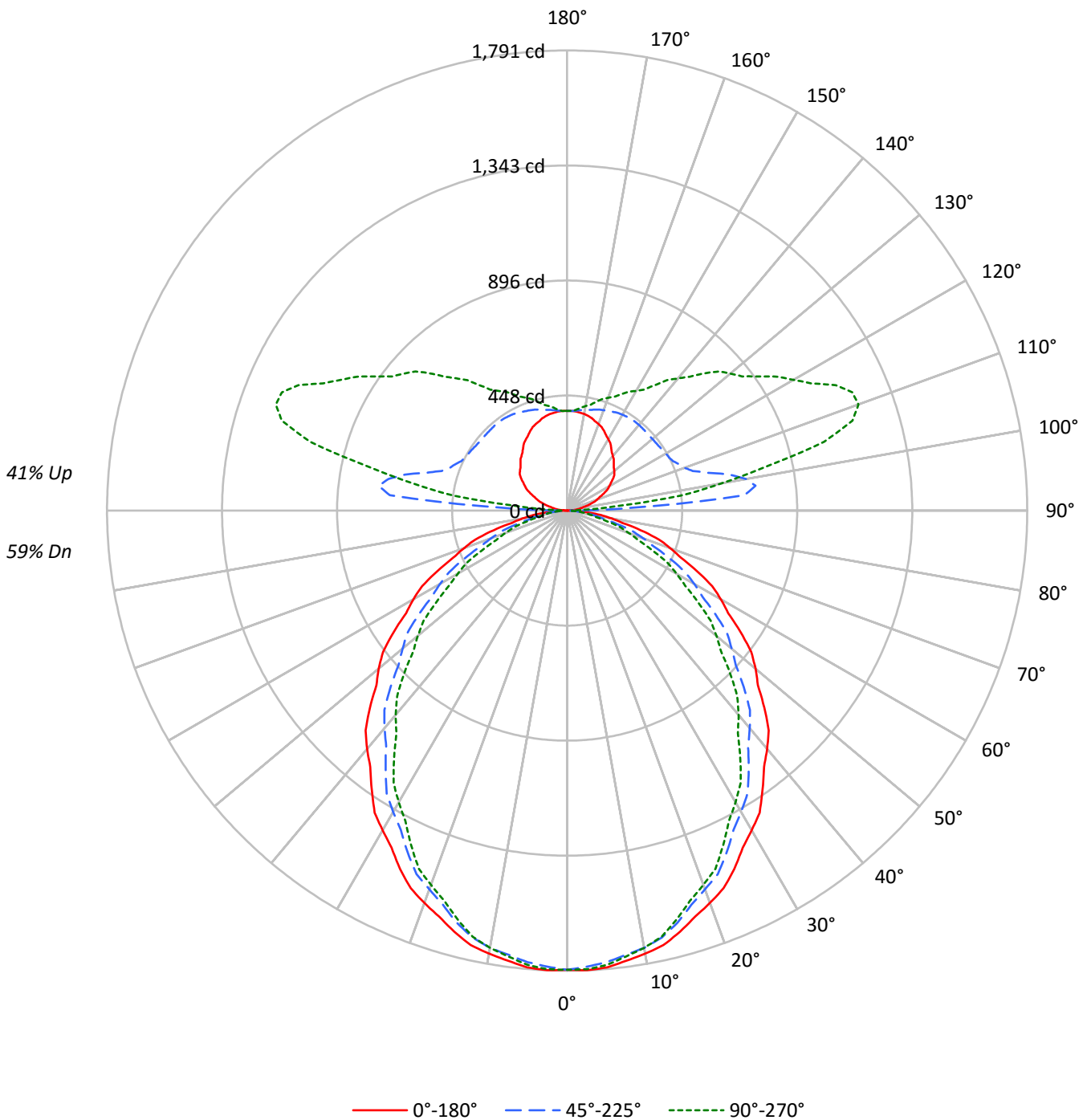
Input Watts (W): 54.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	109	109	109	102	102	102	102	88	88	88	76	76	76	65	65	65	59
1	100	96	92	89	93	90	86	83	78	76	73	67	66	64	58	56	55	50
2	91	84	78	73	85	79	73	69	69	65	61	59	56	54	51	49	47	43
3	84	74	67	61	78	69	63	58	61	56	52	53	49	46	45	43	40	36
4	77	66	58	52	71	62	55	49	54	49	44	47	43	39	41	37	35	31
5	70	59	51	45	65	55	48	42	49	43	38	42	38	34	37	33	30	27
6	65	53	45	39	60	50	42	37	44	38	34	38	34	30	33	30	27	24
7	60	48	40	34	56	45	38	33	40	34	30	35	30	27	31	27	24	22
8	56	43	36	30	52	41	34	29	36	31	27	32	27	24	28	24	22	19
9	52	40	32	27	49	38	31	26	34	28	24	30	25	22	26	22	20	17
10	49	37	29	24	46	35	28	24	31	25	22	27	23	20	24	20	18	16

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11544	11544	11544
5°	11570	11439	11509
10°	11482	11332	11332
15°	11346	11102	11012
20°	11171	10781	10652
25°	10967	10467	10236
30°	10712	10097	9775
35°	10452	9717	9260
40°	10209	9321	8752
45°	9913	8878	8199
50°	9616	8396	7623
55°	9272	7935	7007
60°	8928	7375	6347
65°	8520	6725	5590
70°	8055	5914	4817
75°	7411	4986	4007
80°	6527	3916	3362
85°	5498	3201	3001



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	168.1	2.4
10°-20°	469.7	6.6
20°-30°	681.1	9.5
30°-40°	776.2	10.9
40°-50°	756.6	10.6
50°-60°	636.9	8.9
60°-70°	446.5	6.3
70°-80°	229.5	3.2
80°-90°	60.1	0.8
90°-100°	281.1	3.9
100°-110°	604.3	8.5
110°-120°	567.1	8.0
120°-130°	459.6	6.4
130°-140°	368.8	5.2
140°-150°	278.3	3.9
150°-160°	195.9	2.7
160°-170°	115.5	1.6
170°-180°	37.6	0.5
0°-30°	1318.9	18.5
0°-40°	2095.1	29.4
0°-60°	3488.6	48.9
0°-90°	4224.7	59.2
90°-120°	1452.5	20.4
90°-150°	2559.3	35.9
90°-180°	2908.0	40.8
0°-180°	7133.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1787	1787	1787	1787	1787	
5°	1785	1779	1764	1777	1775	169
15°	1697	1688	1660	1659	1647	478
25°	1539	1517	1469	1451	1436	708
35°	1326	1292	1232	1194	1174	830
45°	1085	1044	972	920	898	837
55°	824	778	705	646	622	736
65°	558	510	440	388	366	552
75°	297	256	200	171	161	314
85°	74	51	43	42	40	83
90°	1	7	12	16	18	5
95°	26	76	693	314	184	27
105°	88	124	567	1116	1036	93
115°	158	190	455	981	1154	155
125°	219	256	436	780	909	194
135°	256	308	433	654	755	199
145°	299	342	435	541	596	187
155°	341	367	424	479	500	157
165°	372	382	407	431	438	105
175°	387	387	390	395	393	37
180°	388	388	388	388	388	



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CATALOG NUMBER: S125RDIP-S1090D810U835-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1787.4	1787.4	1787.4	1787.4	1787.4	1787.4	1787.4	1787.4	1787.4	1787.4	1787.4
2.5°	1790.6	1789.9	1789.2	1788.4	1787.7	1786.2	1783.8	1781.4	1779.0	1776.6	1779.0
5°	1784.7	1783.5	1782.3	1781.1	1779.9	1777.6	1774.3	1771.0	1767.7	1764.4	1767.4
7.5°	1767.1	1766.0	1764.8	1763.7	1762.5	1760.0	1756.0	1752.1	1748.1	1744.2	1746.3
10°	1750.9	1750.0	1749.1	1748.2	1747.3	1744.8	1740.6	1736.4	1732.2	1728.0	1728.9
12.5°	1732.5	1731.4	1730.3	1729.1	1728.0	1724.6	1719.0	1713.3	1707.7	1702.0	1702.7
15°	1696.9	1695.1	1693.3	1691.5	1689.7	1685.7	1679.4	1673.1	1666.8	1660.5	1660.2
17.5°	1656.7	1653.9	1651.2	1648.4	1645.6	1640.3	1632.4	1624.5	1616.5	1608.6	1607.1
20°	1625.4	1622.4	1619.4	1616.4	1613.4	1607.1	1597.5	1587.9	1578.3	1568.7	1567.2
22.5°	1590.8	1587.8	1584.8	1581.8	1578.8	1572.3	1562.2	1552.1	1542.0	1531.9	1529.0
25°	1539.0	1534.5	1530.0	1525.5	1521.0	1513.2	1502.1	1491.0	1479.9	1468.8	1464.9
27.5°	1479.6	1474.1	1468.6	1463.2	1457.7	1449.1	1437.2	1425.3	1413.4	1401.5	1396.1
30°	1436.4	1430.7	1425.0	1419.3	1413.6	1404.4	1391.8	1379.2	1366.6	1354.0	1347.1
32.5°	1394.2	1387.6	1380.9	1374.3	1367.6	1357.9	1345.0	1332.2	1319.3	1306.5	1298.9
35°	1325.7	1318.5	1311.3	1304.1	1296.9	1286.5	1273.0	1259.5	1246.0	1232.5	1223.8
37.5°	1258.4	1249.7	1240.9	1232.2	1223.4	1212.1	1198.1	1184.2	1170.3	1156.4	1145.9
40°	1210.9	1201.9	1192.9	1183.9	1174.9	1163.2	1148.8	1134.4	1120.0	1105.6	1094.2
42.5°	1161.2	1152.0	1142.8	1133.5	1124.3	1112.2	1097.3	1082.5	1067.6	1052.7	1041.8
45°	1085.4	1076.7	1068.0	1059.3	1050.6	1038.0	1021.5	1005.0	988.5	972.0	960.0
47.5°	1006.8	997.6	988.4	979.3	970.1	957.2	940.6	923.9	907.3	890.7	878.3
50°	957.1	947.2	937.3	927.4	917.5	904.0	886.9	869.8	852.7	835.6	823.0
52.5°	903.1	893.0	882.8	872.7	862.6	849.4	833.3	817.1	801.0	784.9	771.3
55°	823.5	813.9	804.3	794.7	785.1	771.9	755.1	738.3	721.5	704.7	691.2
57.5°	743.0	732.8	722.5	712.2	702.0	688.8	672.6	656.4	640.2	624.0	610.8
60°	691.2	680.7	670.2	659.7	649.2	635.8	619.6	603.4	587.2	571.0	557.8
62.5°	636.1	626.1	616.1	606.0	596.0	582.8	566.4	549.9	533.5	517.0	504.8
65°	557.5	547.3	537.1	526.9	516.7	503.7	487.8	471.9	456.0	440.1	428.1
67.5°	479.5	469.3	459.1	448.9	438.7	426.0	410.7	395.5	380.3	365.0	354.1
70°	426.6	416.4	406.2	396.0	385.8	373.2	358.2	343.2	328.2	313.2	303.9
72.5°	374.8	364.8	354.8	344.9	334.9	322.9	308.9	294.8	280.8	266.8	258.2
75°	297.0	288.0	279.0	270.0	261.0	250.2	237.6	225.0	212.4	199.8	193.2
77.5°	219.8	212.6	205.4	198.2	191.0	182.3	172.3	162.2	152.1	142.0	137.4
80°	175.5	168.3	161.1	153.9	146.7	138.9	130.5	122.1	113.7	105.3	102.6
82.5°	132.3	125.8	119.3	112.9	106.4	100.3	94.5	88.7	83.0	77.2	76.0
85°	74.2	68.8	63.4	58.0	52.6	49.2	47.7	46.2	44.7	43.2	42.9
87.5°	25.0	23.5	22.1	20.7	19.4	18.7	18.6	18.7	18.6	18.7	18.9
90°	0.8	1.6	3.1	4.7	6.3	7.8	8.6	10.2	10.9	12.5	13.3
92.5°	9.5	11.6	18.1	27.8	41.3	64.1	106.8	178.4	256.1	252.1	204.1
95°	25.8	26.6	32.8	41.4	58.6	93.8	177.5	349.5	565.3	692.8	677.9
97.5°	42.8	43.8	48.2	56.8	72.2	97.6	152.9	279.0	504.8	739.8	857.7
100°	54.7	56.3	59.4	68.0	82.9	106.3	151.7	253.3	450.4	706.1	901.5
102.5°	67.9	68.8	71.3	80.5	94.1	117.0	157.3	242.7	409.1	646.6	875.3
105°	88.4	88.4	92.3	100.1	112.6	134.5	168.9	238.5	369.1	566.9	791.3
107.5°	108.4	109.9	113.7	120.1	133.1	152.8	186.1	245.7	352.2	512.0	705.6
110°	122.8	124.3	127.4	134.5	146.2	166.5	198.6	252.6	347.2	486.3	656.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	137.1	138.7	141.2	148.2	160.0	179.7	210.5	261.3	347.2	471.3	620.5
115°	157.9	159.5	161.9	168.9	180.6	200.2	229.1	274.4	349.5	455.1	580.9
117.5°	176.7	179.1	181.6	188.6	201.9	220.8	248.2	289.5	354.7	447.1	557.3
120°	189.2	191.6	194.7	201.7	215.0	234.6	261.9	299.5	359.7	443.3	544.2
122.5°	202.4	204.1	206.6	213.6	228.2	247.7	275.1	310.7	364.0	440.2	532.9
125°	218.9	220.5	224.4	231.4	246.3	266.6	292.4	326.0	371.4	436.3	517.6
127.5°	231.9	234.3	239.3	248.2	264.0	284.3	309.2	340.1	379.7	434.4	503.5
130°	240.0	242.4	248.6	258.8	275.2	295.6	319.8	349.5	384.7	433.2	494.2
132.5°	246.3	249.3	256.8	268.2	285.2	305.6	329.8	357.6	390.3	433.2	486.7
135°	256.5	259.6	269.0	281.5	297.9	319.0	343.3	369.1	398.0	433.2	477.7
137.5°	269.3	271.6	280.4	292.9	309.0	330.7	352.8	377.5	405.0	434.1	469.8
140°	276.8	279.1	288.5	301.0	315.9	337.0	359.7	383.1	408.1	434.7	466.0
142.5°	285.5	287.3	296.0	308.5	322.8	342.6	364.0	386.3	410.0	435.4	462.9
145°	298.7	300.2	308.1	319.0	333.1	351.1	371.4	390.9	412.1	434.7	458.2
147.5°	312.4	313.4	320.1	330.3	342.5	358.3	376.1	393.8	412.8	432.7	453.3
150°	320.6	322.1	327.6	337.8	348.7	362.0	379.2	395.6	412.8	430.8	449.6
152.5°	329.3	330.3	335.1	344.0	354.4	366.4	382.3	396.9	412.2	428.3	445.2
155°	340.9	340.9	345.6	353.4	361.2	372.2	385.5	398.0	410.5	423.8	437.9
157.5°	351.2	351.1	354.8	361.5	368.4	376.7	388.1	398.8	408.5	419.1	431.0
160°	358.1	357.3	360.5	365.9	372.2	379.2	389.4	398.8	406.6	416.0	425.4
162.5°	363.7	363.0	366.1	370.9	375.9	381.7	390.6	398.1	404.7	412.2	420.3
165°	372.2	370.6	373.0	376.9	380.0	384.7	390.9	397.2	401.9	406.6	412.8
167.5°	377.8	377.0	378.4	380.6	382.8	385.8	390.9	395.3	397.5	401.1	405.5
170°	381.6	380.8	381.6	383.1	384.7	387.0	390.9	394.1	395.6	398.0	401.1
172.5°	384.1	382.7	383.4	385.0	385.9	387.0	390.3	392.8	393.1	394.2	396.7
175°	387.0	385.5	386.3	387.0	387.0	387.0	389.4	390.9	390.2	390.2	390.9
177.5°	388.4	387.2	387.2	387.8	387.2	387.2	388.4	389.1	387.8	387.8	388.4
180°	387.8	387.8	387.8	387.8	387.8	387.8	387.8	387.8	387.8	387.8	387.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1787.4	1787.4	1787.4	1787.4	1787.4	1787.4	1787.4	1787.4
2.5°	1781.4	1783.8	1786.2	1787.2	1787.0	1786.8	1786.5	1786.3
5°	1770.4	1773.4	1776.4	1777.6	1777.0	1776.4	1775.8	1775.2
7.5°	1748.4	1750.5	1752.6	1753.3	1752.6	1752.0	1751.3	1750.6
10°	1729.8	1730.7	1731.6	1731.6	1730.7	1729.8	1728.9	1728.0
12.5°	1703.4	1704.0	1704.7	1704.3	1702.9	1701.6	1700.2	1698.8
15°	1659.9	1659.6	1659.3	1657.8	1655.1	1652.4	1649.7	1647.0
17.5°	1605.6	1604.1	1602.6	1600.8	1598.5	1596.3	1594.1	1591.9
20°	1565.7	1564.2	1562.7	1560.6	1557.9	1555.2	1552.5	1549.8
22.5°	1526.1	1523.1	1520.2	1517.6	1515.4	1513.2	1510.9	1508.7
25°	1461.0	1457.1	1453.2	1449.6	1446.3	1443.0	1439.7	1436.4
27.5°	1390.6	1385.2	1379.7	1375.4	1372.2	1369.0	1365.8	1362.7
30°	1340.2	1333.3	1326.4	1321.6	1318.9	1316.2	1313.5	1310.8
32.5°	1291.3	1283.6	1276.0	1270.5	1267.1	1263.7	1260.2	1256.8
35°	1215.1	1206.4	1197.7	1191.3	1187.1	1182.9	1178.7	1174.5
37.5°	1135.5	1125.1	1114.6	1107.4	1103.3	1099.2	1095.1	1091.0
40°	1082.8	1071.4	1060.0	1052.5	1048.9	1045.3	1041.7	1038.1
42.5°	1030.9	1019.9	1009.0	1000.9	995.6	990.4	985.1	979.8
45°	948.0	936.0	924.0	915.7	911.2	906.7	902.2	897.7
47.5°	866.0	853.6	841.3	832.6	827.6	822.6	817.7	812.7
50°	810.4	797.8	785.2	776.7	772.2	767.7	763.2	758.7
52.5°	757.8	744.2	730.6	721.6	717.1	712.6	708.1	703.6
55°	677.7	664.2	650.7	641.5	636.7	631.9	627.1	622.3
57.5°	597.6	584.4	571.2	562.4	558.2	553.9	549.6	545.4
60°	544.6	531.4	518.2	509.4	504.9	500.4	495.9	491.4
62.5°	492.6	480.3	468.1	459.7	455.2	450.7	446.2	441.7
65°	416.1	404.1	392.1	383.8	379.3	374.8	370.3	365.8
67.5°	343.1	332.1	321.1	313.8	310.2	306.6	303.0	299.4
70°	294.6	285.3	276.0	269.5	265.9	262.3	258.7	255.1
72.5°	249.6	241.0	232.4	226.9	224.5	222.1	219.7	217.3
75°	186.6	180.0	173.4	169.0	166.9	164.8	162.7	160.6
77.5°	132.8	128.2	123.5	120.4	118.9	117.3	115.8	114.2
80°	99.9	97.2	94.5	92.8	92.2	91.6	91.0	90.4
82.5°	74.7	73.4	72.2	71.4	71.0	70.6	70.3	69.9
85°	42.6	42.3	42.0	41.7	41.4	41.1	40.8	40.5
87.5°	19.0	19.2	19.3	19.5	19.3	19.0	19.0	18.7
90°	14.1	14.9	15.6	17.2	17.2	17.2	18.0	18.0
92.5°	138.6	100.6	75.7	64.1	54.1	52.2	51.1	49.9
95°	562.2	443.3	347.2	281.5	226.0	202.5	196.3	183.7
97.5°	837.3	753.9	660.2	568.9	520.6	476.8	454.1	444.1
100°	961.7	923.4	842.9	761.6	707.6	651.3	622.4	609.9
102.5°	1003.6	1027.3	988.6	933.6	875.9	835.8	804.4	795.0
105°	978.9	1086.1	1120.5	1111.9	1086.8	1061.0	1045.4	1036.0
107.5°	890.7	1033.7	1122.0	1162.8	1175.5	1175.3	1170.2	1163.9
110°	825.7	974.2	1084.5	1150.9	1186.1	1201.0	1206.5	1206.5



TEST NUMBER: P333597

CATALOG NUMBER: S125RDIP-S1090D810U835-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	774.4	915.4	1026.9	1105.3	1156.7	1182.2	1195.8	1201.5
115°	710.0	831.2	938.3	1023.5	1084.5	1122.0	1143.9	1154.1
117.5°	668.4	772.8	865.1	943.3	1004.3	1043.0	1064.8	1071.0
120°	645.8	739.7	825.7	894.5	952.3	989.9	1011.0	1017.2
122.5°	629.0	715.9	792.5	857.0	908.6	943.0	964.1	969.7
125°	604.4	684.2	752.2	808.5	852.3	884.3	901.5	909.3
127.5°	579.4	653.8	717.3	770.0	809.7	838.0	854.3	857.7
130°	563.7	632.6	693.5	744.4	783.5	809.3	824.9	829.6
132.5°	548.1	612.5	667.9	716.8	755.9	781.7	796.1	801.4
135°	527.8	581.7	631.8	676.3	710.7	736.5	750.6	755.3
137.5°	510.6	554.2	595.8	633.6	664.5	687.9	700.9	706.1
140°	501.2	537.9	573.9	606.7	635.7	656.0	667.7	671.6
142.5°	493.1	524.2	555.1	583.6	608.2	625.4	636.5	639.7
145°	482.4	506.7	530.9	552.0	570.8	584.1	592.7	595.8
147.5°	472.4	492.1	510.7	526.7	541.5	552.2	557.2	558.6
150°	466.8	484.0	498.8	512.9	524.7	534.0	537.2	537.9
152.5°	460.5	475.9	489.5	500.4	510.3	517.8	520.9	521.7
155°	451.2	463.7	474.6	483.2	491.0	496.5	498.8	499.6
157.5°	441.8	452.1	460.5	467.3	473.4	477.9	480.1	479.9
160°	435.5	443.3	451.2	456.6	462.1	466.0	467.6	466.8
162.5°	428.6	435.8	442.4	447.2	451.5	454.7	455.1	454.9
165°	419.1	424.6	429.3	433.2	436.3	437.9	437.9	437.9
167.5°	410.0	413.6	417.2	420.0	421.6	423.0	422.4	422.2
170°	405.0	407.4	409.7	411.3	412.8	413.6	413.6	412.8
172.5°	399.4	401.7	403.5	404.4	404.7	406.1	404.9	404.1
175°	393.3	393.3	394.9	394.9	394.9	395.6	394.1	393.3
177.5°	389.1	389.7	389.7	389.7	389.1	389.7	387.8	387.8
180°	387.8	387.8	387.8	387.8	387.8	387.8	387.8	387.8

(END OF REPORT)