

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: P333609-840

Luminaire Tested: **S125RDIP-S1090D1205U840-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333609-840
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-S1090D1205U840-4F0-1E-UDD-F4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 1205 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8632.1 lumens
Efficiency: N/A
Efficacy: 132.0 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

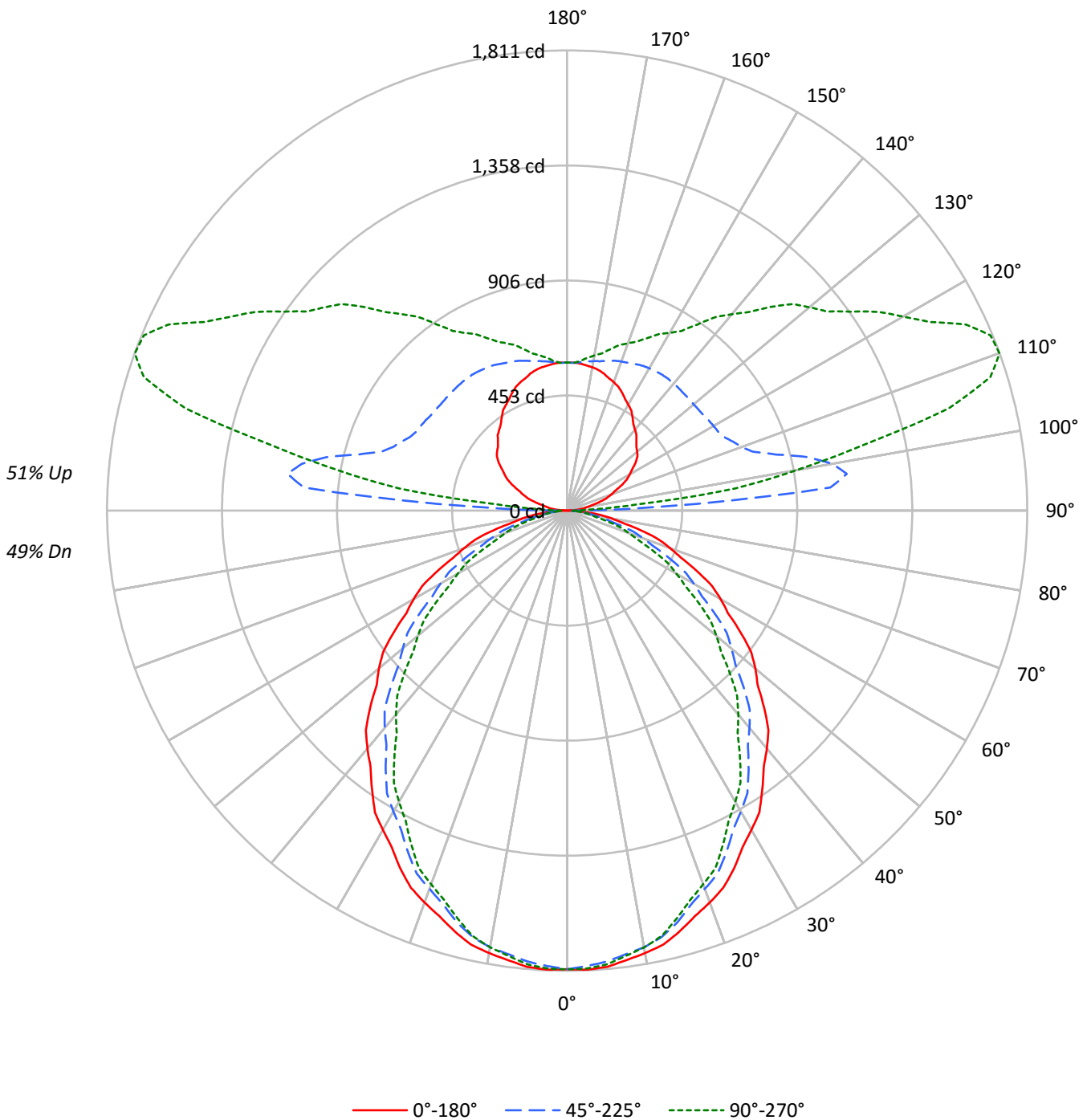
Input Watts (W): 65.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	49
1	98	94	90	86	90	86	83	80	73	71	69	61	59	58	49	48	47	42
2	89	82	76	71	82	76	71	66	64	60	57	54	51	48	44	42	40	36
3	82	72	65	59	75	67	61	56	57	52	48	48	44	41	39	37	34	30
4	75	64	56	50	69	59	53	47	51	45	41	43	39	35	35	32	30	26
5	69	57	49	43	63	53	46	41	45	40	36	38	34	31	32	29	26	23
6	63	51	43	38	58	48	41	35	41	35	31	35	30	27	29	26	23	20
7	59	46	38	33	54	43	36	31	37	32	28	32	27	24	26	23	21	18
8	54	42	34	29	50	39	32	28	34	28	25	29	25	21	24	21	18	16
9	51	38	31	26	47	36	29	25	31	26	22	27	22	19	22	19	17	15
10	47	35	28	23	44	33	27	22	29	23	20	25	20	18	21	18	15	13

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11657	11657	11657
5°	11684	11551	11622
10°	11596	11444	11444
15°	11457	11212	11120
20°	11281	10888	10757
25°	11075	10570	10337
30°	10818	10197	9871
35°	10555	9813	9351
40°	10309	9413	8838
45°	10011	8965	8280
50°	9711	8478	7698
55°	9364	8014	7076
60°	9016	7448	6409
65°	8604	6791	5645
70°	8135	5973	4864
75°	7483	5036	4047
80°	6590	3954	3396
85°	5550	3231	3031



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	169.7	2.0
10°-20°	474.3	5.5
20°-30°	687.8	8.0
30°-40°	783.9	9.1
40°-50°	764.1	8.9
50°-60°	643.2	7.5
60°-70°	450.9	5.2
70°-80°	231.8	2.7
80°-90°	61.8	0.7
90°-100°	421.9	4.9
100°-110°	906.9	10.5
110°-120°	851.1	9.9
120°-130°	689.8	8.0
130°-140°	553.5	6.4
140°-150°	417.7	4.8
150°-160°	294.0	3.4
160°-170°	173.3	2.0
170°-180°	56.4	0.7
0°-30°	1331.9	15.4
0°-40°	2115.8	24.5
0°-60°	3523.1	40.8
0°-90°	4267.4	49.4
90°-120°	2179.9	25.3
90°-150°	3840.9	44.5
90°-180°	4365.0	50.6
0°-180°	8632.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1805	1805	1805	1805	1805	
5°	1802	1796	1782	1794	1793	171
15°	1714	1704	1677	1675	1663	483
25°	1554	1532	1483	1466	1451	715
35°	1339	1304	1245	1206	1186	838
45°	1096	1055	982	929	907	845
55°	832	786	712	652	628	744
65°	563	515	444	392	369	558
75°	300	258	202	173	162	317
85°	75	51	44	42	41	84
90°	1	11	19	25	27	6
95°	39	114	1040	472	276	41
105°	133	185	851	1675	1555	140
115°	237	286	683	1472	1732	233
125°	328	385	655	1171	1365	291
135°	385	463	650	982	1134	299
145°	448	513	652	813	894	281
155°	512	550	636	719	750	236
165°	559	574	610	647	657	157
175°	581	581	586	593	590	55
180°	582	582	582	582	582	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1805.0	1805.0	1805.0	1805.0	1805.0	1805.0	1805.0	1805.0	1805.0	1805.0	1805.0
2.5°	1808.3	1807.6	1806.9	1806.0	1805.3	1803.8	1801.4	1799.0	1796.5	1794.1	1796.5
5°	1802.3	1801.1	1799.9	1798.7	1797.5	1795.1	1791.8	1788.5	1785.1	1781.8	1784.8
7.5°	1784.5	1783.4	1782.2	1781.1	1779.9	1777.4	1773.3	1769.4	1765.3	1761.4	1763.5
10°	1768.2	1767.3	1766.4	1765.4	1764.5	1762.0	1757.8	1753.5	1749.3	1745.0	1746.0
12.5°	1749.6	1748.5	1747.4	1746.2	1745.0	1741.6	1736.0	1730.2	1724.5	1718.8	1719.5
15°	1713.6	1711.8	1710.0	1708.2	1706.4	1702.3	1696.0	1689.6	1683.2	1676.9	1676.6
17.5°	1673.0	1670.2	1667.5	1664.7	1661.8	1656.5	1648.5	1640.5	1632.4	1624.5	1623.0
20°	1641.4	1638.4	1635.4	1632.3	1629.3	1623.0	1613.3	1603.6	1593.9	1584.2	1582.7
22.5°	1606.5	1603.5	1600.4	1597.4	1594.4	1587.8	1577.6	1567.4	1557.2	1547.0	1544.1
25°	1554.2	1549.6	1545.1	1540.5	1536.0	1528.1	1516.9	1505.7	1494.5	1483.3	1479.4
27.5°	1494.2	1488.6	1483.1	1477.6	1472.1	1463.4	1451.4	1439.4	1427.3	1415.3	1409.9
30°	1450.6	1444.8	1439.1	1433.3	1427.5	1418.3	1405.5	1392.8	1380.1	1367.4	1360.4
32.5°	1408.0	1401.3	1394.5	1387.9	1381.1	1371.3	1358.3	1345.3	1332.3	1319.4	1311.7
35°	1338.8	1331.5	1324.2	1317.0	1309.7	1299.2	1285.6	1271.9	1258.3	1244.7	1235.9
37.5°	1270.8	1262.0	1253.1	1244.4	1235.5	1224.1	1209.9	1195.9	1181.8	1167.8	1157.2
40°	1222.8	1213.8	1204.7	1195.6	1186.5	1174.7	1160.1	1145.6	1131.0	1116.5	1105.0
42.5°	1172.7	1163.4	1154.1	1144.7	1135.4	1123.2	1108.1	1093.2	1078.1	1063.1	1052.1
45°	1096.1	1087.3	1078.5	1069.8	1061.0	1048.2	1031.6	1014.9	998.3	981.6	969.5
47.5°	1016.7	1007.4	998.2	989.0	979.7	966.6	949.9	933.0	916.3	899.5	887.0
50°	966.5	956.5	946.5	936.5	926.6	912.9	895.6	878.4	861.1	843.8	831.1
52.5°	912.0	901.8	891.5	881.3	871.1	857.8	841.5	825.2	808.9	792.6	778.9
55°	831.6	821.9	812.2	802.5	792.8	779.5	762.5	745.6	728.6	711.7	698.0
57.5°	750.3	740.0	729.6	719.2	708.9	695.6	679.2	662.9	646.5	630.2	616.8
60°	698.0	687.4	676.8	666.2	655.6	642.1	625.7	609.4	593.0	576.6	563.3
62.5°	642.4	632.3	622.2	612.0	601.9	588.5	572.0	555.3	538.8	522.1	509.8
65°	563.0	552.7	542.4	532.1	521.8	508.7	492.6	476.6	460.5	444.4	432.3
67.5°	484.2	473.9	463.6	453.3	443.0	430.2	414.8	399.4	384.1	368.6	357.6
70°	430.8	420.5	410.2	399.9	389.6	376.9	361.7	346.6	331.4	316.3	306.9
72.5°	378.5	368.4	358.3	348.3	338.2	326.1	311.9	297.7	283.6	269.4	260.7
75°	299.9	290.8	281.8	272.7	263.6	252.7	239.9	227.2	214.5	201.8	195.1
77.5°	222.0	214.7	207.4	200.2	192.9	184.1	174.0	163.8	153.6	143.4	138.8
80°	177.2	170.0	162.7	155.4	148.1	140.3	131.8	123.3	114.8	106.3	103.6
82.5°	133.6	127.0	120.5	114.0	107.4	101.3	95.4	89.6	83.8	78.0	76.7
85°	74.9	69.5	64.0	58.6	53.1	49.7	48.2	46.7	45.1	43.6	43.3
87.5°	25.3	23.8	22.6	21.4	20.2	19.7	19.7	19.9	19.9	20.1	20.4
90°	1.2	2.3	4.6	7.1	9.4	11.7	12.9	15.2	16.5	18.8	20.0
92.5°	14.3	17.4	27.3	41.8	62.0	96.2	160.3	267.8	384.5	378.3	306.3
95°	38.7	39.9	49.3	62.2	88.0	140.8	266.4	524.5	848.4	1039.7	1017.3
97.5°	64.3	65.7	72.3	85.2	108.5	146.4	229.5	418.7	757.6	1110.2	1287.3
100°	82.1	84.5	89.2	102.1	124.4	159.6	227.6	380.2	675.9	1059.6	1352.9
102.5°	101.9	103.3	107.0	120.9	141.3	175.5	236.1	364.3	613.9	970.4	1313.5
105°	132.6	132.6	138.5	150.2	169.0	201.9	253.5	357.9	553.8	850.7	1187.5
107.5°	162.6	165.0	170.6	180.3	199.8	229.2	279.2	368.7	528.5	768.3	1058.9
110°	184.2	186.6	191.3	201.9	219.4	249.9	298.0	379.0	521.0	729.8	985.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	205.8	208.1	211.9	222.5	240.0	269.6	315.9	392.1	521.0	707.3	931.2
115°	237.0	239.3	242.9	253.5	271.0	300.4	343.9	411.8	524.5	683.0	871.8
117.5°	265.2	268.7	272.5	283.1	303.0	331.3	372.4	434.4	532.3	671.0	836.4
120°	284.0	287.5	292.2	302.8	322.7	352.0	393.1	449.4	539.8	665.3	816.7
122.5°	303.7	306.3	310.0	320.5	342.4	371.7	412.8	466.4	546.3	660.7	799.8
125°	328.5	330.9	336.8	347.3	369.6	400.1	438.9	489.3	557.3	654.8	776.8
127.5°	348.0	351.5	359.1	372.4	396.2	426.7	463.9	510.5	569.8	652.0	755.7
130°	360.2	363.8	373.1	388.4	413.0	443.5	479.9	524.5	577.3	650.1	741.6
132.5°	369.6	374.1	385.4	402.5	428.1	458.6	494.9	536.7	585.7	650.1	730.3
135°	384.9	389.6	403.6	422.4	447.1	478.8	515.1	553.8	597.2	650.1	717.0
137.5°	404.1	407.7	420.8	439.6	463.7	496.3	529.5	566.5	607.8	651.5	705.0
140°	415.4	418.9	433.0	451.8	474.0	505.7	539.8	575.0	612.5	652.4	699.3
142.5°	428.5	431.1	444.2	463.0	484.4	514.2	546.3	579.7	615.3	653.4	694.7
145°	448.3	450.6	462.3	478.8	499.9	526.8	557.3	586.7	618.4	652.4	687.6
147.5°	468.9	470.3	480.4	495.6	513.9	537.7	564.4	591.0	619.6	649.3	680.3
150°	481.1	483.4	491.7	507.0	523.3	543.3	569.1	593.8	619.6	646.5	674.7
152.5°	494.2	495.6	502.9	516.3	531.8	549.9	573.8	595.6	618.6	642.8	668.1
155°	511.6	511.6	518.7	530.4	542.1	558.6	578.5	597.2	616.0	636.0	657.1
157.5°	527.1	526.8	532.5	542.6	552.9	565.3	582.5	598.4	613.0	628.9	646.8
160°	537.5	536.2	541.0	549.2	558.6	569.1	584.4	598.4	610.2	624.3	638.3
162.5°	545.8	544.7	549.4	556.6	564.2	572.9	586.2	597.5	607.3	618.6	630.9
165°	558.6	556.2	559.8	565.6	570.3	577.3	586.7	596.1	603.1	610.2	619.6
167.5°	567.0	565.8	567.9	571.2	574.5	579.0	586.7	593.3	596.5	602.0	608.5
170°	572.6	571.5	572.6	575.0	577.3	580.9	586.7	591.4	593.8	597.2	602.0
172.5°	576.4	574.3	575.4	577.7	579.2	580.9	585.7	589.6	590.0	591.7	595.4
175°	580.9	578.5	579.7	580.9	580.9	580.9	584.4	586.7	585.5	585.5	586.7
177.5°	583.0	581.1	581.1	582.0	581.1	581.1	583.0	583.9	582.0	582.0	583.0
180°	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1805.0	1805.0	1805.0	1805.0	1805.0	1805.0	1805.0	1805.0
2.5°	1799.0	1801.4	1803.8	1804.8	1804.6	1804.4	1804.1	1803.9
5°	1787.9	1790.9	1793.9	1795.1	1794.5	1793.9	1793.3	1792.7
7.5°	1765.6	1767.8	1769.9	1770.6	1769.9	1769.3	1768.6	1767.9
10°	1746.9	1747.8	1748.7	1748.7	1747.8	1746.9	1746.0	1745.0
12.5°	1720.2	1720.8	1721.5	1721.1	1719.7	1718.4	1717.0	1715.6
15°	1676.3	1676.0	1675.7	1674.2	1671.4	1668.7	1666.0	1663.2
17.5°	1621.4	1619.9	1618.4	1616.6	1614.3	1612.0	1609.8	1607.6
20°	1581.1	1579.6	1578.1	1576.0	1573.3	1570.5	1567.8	1565.1
22.5°	1541.2	1538.1	1535.2	1532.6	1530.3	1528.1	1525.8	1523.6
25°	1475.4	1471.5	1467.5	1463.9	1460.6	1457.2	1453.9	1450.6
27.5°	1404.3	1398.9	1393.3	1389.0	1385.7	1382.5	1379.3	1376.1
30°	1353.4	1346.5	1339.5	1334.6	1331.9	1329.2	1326.5	1323.7
32.5°	1304.0	1296.3	1288.6	1283.0	1279.6	1276.2	1272.6	1269.2
35°	1227.1	1218.3	1209.5	1203.1	1198.8	1194.6	1190.3	1186.1
37.5°	1146.7	1136.2	1125.6	1118.3	1114.2	1110.0	1105.9	1101.8
40°	1093.5	1082.0	1070.5	1062.9	1059.2	1055.6	1052.0	1048.3
42.5°	1041.1	1030.0	1019.0	1010.8	1005.4	1000.2	994.8	989.5
45°	957.4	945.2	933.1	924.7	920.2	915.6	911.1	906.6
47.5°	874.5	862.0	849.6	840.8	835.8	830.7	825.8	820.7
50°	818.4	805.7	792.9	784.4	779.8	775.3	770.7	766.2
52.5°	765.3	751.5	737.8	728.7	724.2	719.6	715.1	710.5
55°	684.4	670.8	657.1	647.8	643.0	638.1	633.3	628.4
57.5°	603.5	590.2	576.8	567.9	563.7	559.4	555.0	550.8
60°	550.0	536.6	523.3	514.4	509.9	505.3	500.8	496.2
62.5°	497.5	485.0	472.7	464.2	459.7	455.1	450.6	446.1
65°	420.2	408.1	396.0	387.6	383.0	378.5	374.0	369.4
67.5°	346.5	335.4	324.3	316.9	313.3	309.6	306.0	302.4
70°	297.5	288.1	278.7	272.2	268.5	264.9	261.3	257.6
72.5°	252.1	243.4	234.7	229.1	226.7	224.3	221.9	219.4
75°	188.4	181.8	175.1	170.7	168.5	166.4	164.3	162.2
77.5°	134.1	129.5	124.7	121.6	120.1	118.5	116.9	115.3
80°	100.9	98.2	95.4	93.7	93.1	92.5	91.9	91.3
82.5°	75.4	74.1	72.9	72.1	71.7	71.3	71.0	70.6
85°	43.0	42.7	42.4	42.1	41.8	41.5	41.2	40.9
87.5°	20.6	20.8	21.0	21.4	21.2	20.9	20.9	20.7
90°	21.1	22.3	23.4	25.9	25.9	25.9	27.0	27.0
92.5°	207.9	150.9	113.6	96.2	81.2	78.4	76.7	74.8
95°	843.6	665.3	521.0	422.4	339.1	303.9	294.6	275.8
97.5°	1256.5	1131.5	990.9	853.7	781.2	715.6	681.6	666.5
100°	1443.3	1385.8	1265.0	1142.9	1062.0	977.4	934.0	915.2
102.5°	1506.2	1541.7	1483.7	1401.1	1314.4	1254.4	1207.2	1193.2
105°	1469.2	1629.9	1681.5	1668.6	1631.0	1592.4	1568.8	1554.8
107.5°	1336.8	1551.3	1683.8	1745.1	1764.1	1763.9	1756.2	1746.8
110°	1239.1	1462.1	1627.5	1727.3	1780.1	1802.4	1810.6	1810.6



TEST NUMBER: P333609-840

CATALOG NUMBER: S125RDIP-S1090D1205U840-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1162.2	1373.8	1541.2	1658.7	1736.0	1774.2	1794.6	1803.1
115°	1065.5	1247.4	1408.1	1536.0	1627.5	1683.8	1716.7	1731.9
117.5°	1003.0	1159.8	1298.3	1415.6	1507.1	1565.4	1598.0	1607.3
120°	969.3	1110.0	1239.1	1342.4	1429.3	1485.5	1517.2	1526.6
122.5°	943.9	1074.4	1189.4	1286.1	1363.5	1415.1	1446.8	1455.3
125°	907.1	1026.7	1128.8	1213.4	1279.0	1327.2	1352.9	1364.7
127.5°	869.5	981.2	1076.5	1155.6	1215.2	1257.7	1282.1	1287.3
130°	846.1	949.3	1040.9	1117.1	1175.8	1214.5	1238.0	1245.0
132.5°	822.5	919.3	1002.3	1075.8	1134.5	1173.2	1194.8	1202.7
135°	792.0	873.0	948.2	1015.0	1066.6	1105.4	1126.5	1133.6
137.5°	766.3	831.7	894.1	951.0	997.1	1032.4	1051.9	1059.6
140°	752.1	807.3	861.3	910.6	954.0	984.5	1002.1	1007.9
142.5°	739.9	786.7	833.1	875.9	912.7	938.5	955.1	960.1
145°	724.0	760.3	796.8	828.4	856.6	876.6	889.5	894.1
147.5°	709.0	738.5	766.5	790.4	812.7	828.7	836.2	838.3
150°	700.5	726.4	748.6	769.7	787.4	801.4	806.2	807.3
152.5°	691.2	714.2	734.6	751.0	765.8	777.0	781.7	782.9
155°	677.0	695.8	712.3	725.2	736.9	745.1	748.6	749.8
157.5°	663.0	678.4	691.2	701.3	710.3	717.2	720.4	720.2
160°	653.6	665.3	677.0	685.3	693.5	699.3	701.8	700.5
162.5°	643.3	654.1	663.9	671.2	677.5	682.5	683.0	682.7
165°	628.9	637.1	644.2	650.1	654.8	657.1	657.1	657.1
167.5°	615.3	620.8	626.1	630.4	632.7	634.8	633.9	633.7
170°	607.8	611.4	614.9	617.2	619.6	620.8	620.8	619.6
172.5°	599.4	602.9	605.5	606.9	607.3	609.5	607.6	606.4
175°	590.3	590.3	592.6	592.6	592.6	593.8	591.4	590.3
177.5°	583.9	584.8	584.8	584.8	583.9	584.8	582.0	582.0
180°	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0

(END OF REPORT)