

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: P333583-840

Luminaire Tested: **S125RDIP-S1090D365U840-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333583-840
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-S1090D365U840-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1090 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: 5744.0 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: Semi-Direct

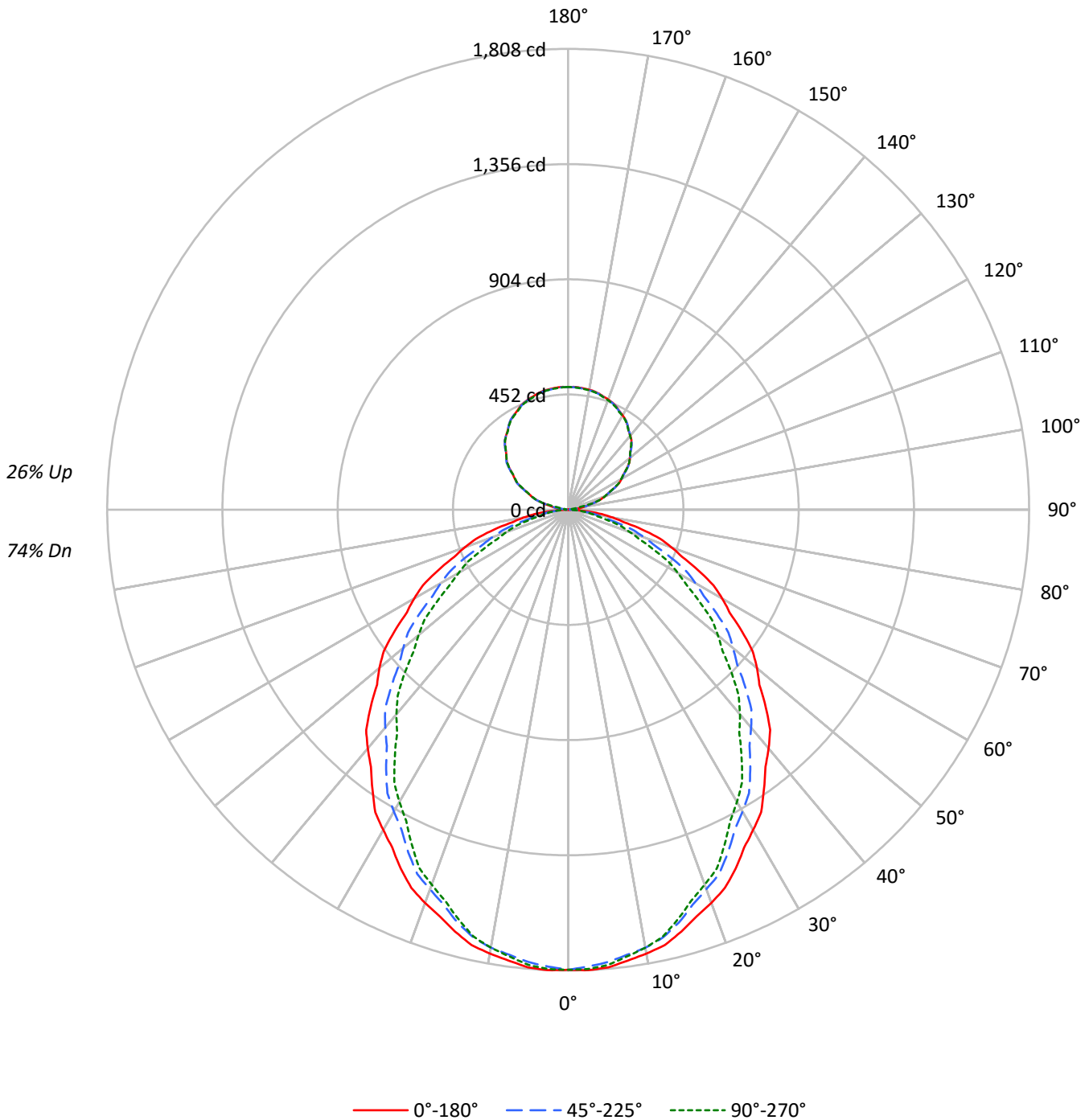
Input Watts (W): 43.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333583-840

CATALOG NUMBER: S125RDIP-S1090D365U840-4F0-1E-UDD-F

Luminous Intensity Polar Plot





TEST NUMBER: P333583-840

CATALOG NUMBER: S125RDIP-S1090D365U840-4F0-1E-UDD-F

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	113	113	113	113	107	107	107	107	97	97	97	87	87	87	78	78	78	74
1	104	99	95	92	98	94	91	88	86	83	80	77	75	74	70	68	67	63
2	95	87	81	76	90	83	77	73	75	71	67	68	65	62	62	59	57	53
3	87	77	69	63	82	73	67	61	67	61	57	61	56	53	55	52	49	46
4	79	68	60	54	75	65	58	52	60	54	49	54	49	45	49	46	42	39
5	73	61	53	47	69	59	51	45	54	47	42	49	44	40	45	40	37	34
6	68	55	47	41	64	53	45	40	48	42	37	44	39	35	41	36	33	30
7	63	50	42	36	59	48	40	35	44	38	33	41	35	31	37	33	29	27
8	58	46	38	32	55	44	36	31	40	34	30	37	32	28	34	30	26	24
9	54	42	34	29	52	40	33	28	37	31	27	34	29	25	32	27	24	22
10	51	39	31	26	48	37	30	26	34	28	24	32	27	23	29	25	22	20

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



TEST NUMBER: P333583-840

CATALOG NUMBER: S125RDIP-S1090D365U840-4F0-1E-UDD-F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	169.7	3.0
10°-20°	474.3	8.3
20°-30°	687.8	12.0
30°-40°	783.9	13.6
40°-50°	764.1	13.3
50°-60°	643.2	11.2
60°-70°	450.9	7.8
70°-80°	231.8	4.0
80°-90°	59.5	1.0
90°-100°	17.5	0.3
100°-110°	107.8	1.9
110°-120°	195.6	3.4
120°-130°	251.0	4.4
130°-140°	270.0	4.7
140°-150°	253.4	4.4
150°-160°	205.0	3.6
160°-170°	132.6	2.3
170°-180°	45.7	0.8
0°-30°	1331.9	23.2
0°-40°	2115.8	36.8
0°-60°	3523.1	61.3
0°-90°	4265.2	74.3
90°-120°	321.0	5.6
90°-150°	1095.4	19.1
90°-180°	1479.0	25.7
0°-180°	5744.0	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°	0	3	6	7	9	4
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	



TEST NUMBER: P333583-840

CATALOG NUMBER: S125RDIP-S1090D365U840-4F0-1E-UDD-F

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°	25.1	23.6	22.0	20.4	18.9	18.1	17.9	17.8	17.7	17.5	17.6
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



TEST NUMBER: P333583-840

CATALOG NUMBER: S125RDIP-S1090D365U840-4F0-1E-UDD-F

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



TEST NUMBER: P333583-840

CATALOG NUMBER: S125RDIP-S1090D365U840-4F0-1E-UDD-F

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°	17.7	17.8	17.8	17.8	17.6	17.4	17.2	17.0
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: P333583-840

CATALOG NUMBER: S125RDIP-S1090D365U840-4F0-1E-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)