

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: P333702

Luminaire Tested: **S125RDIW-S1090D470U835-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333702
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: S125RDIW-S1090D470U835-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 470 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6097.9 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

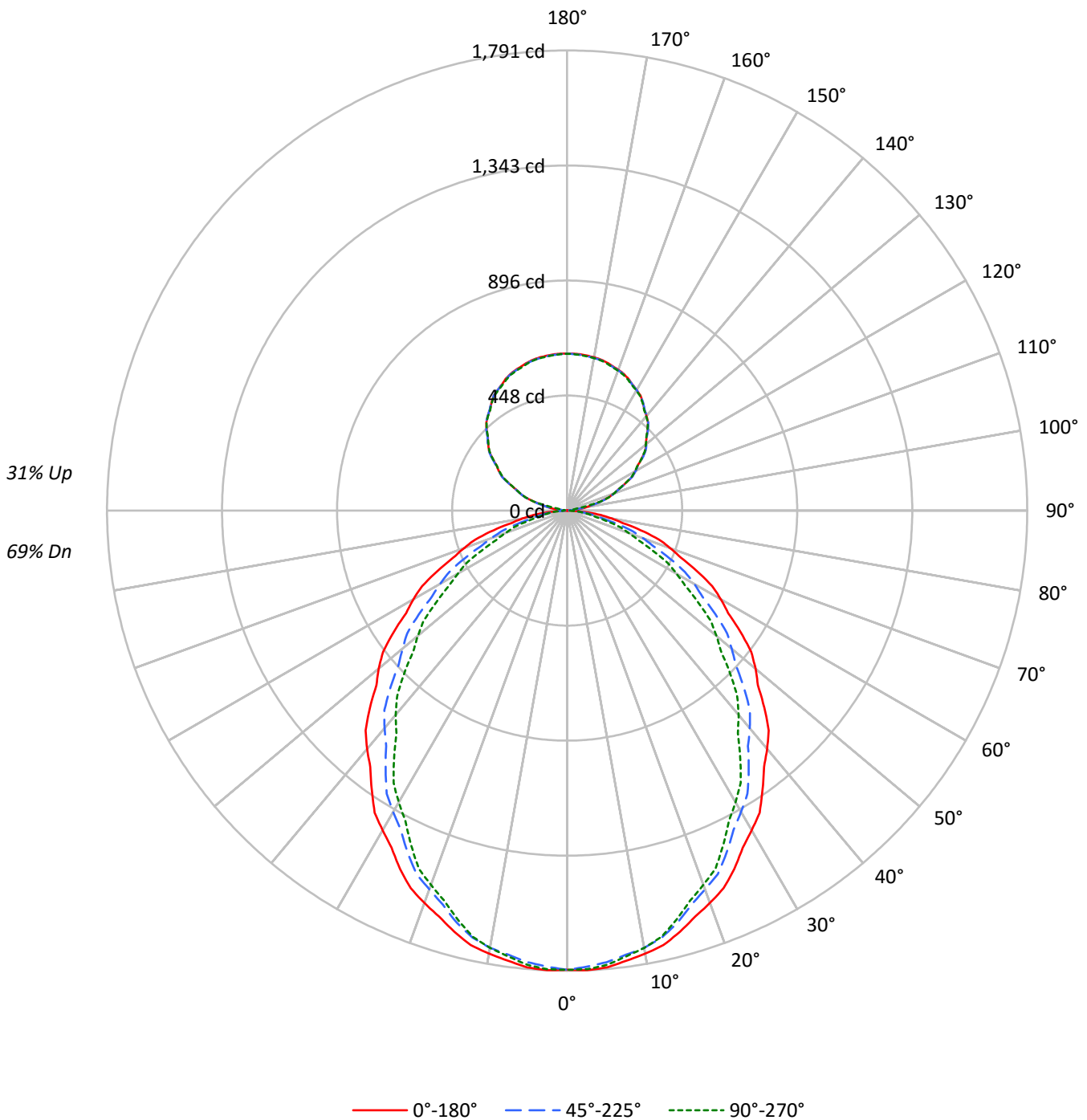
Input Watts (W): 46.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	112	112	112	112	106	106	106	106	94	94	94	83	83	83	74	74	74	69
1	102	98	94	91	97	93	89	86	83	80	78	74	72	70	66	64	63	59
2	94	86	80	75	88	82	76	71	73	69	65	65	62	59	58	56	54	50
3	86	76	68	63	81	72	65	60	65	60	55	58	54	50	52	49	46	43
4	78	67	59	53	74	64	57	51	58	52	47	52	47	43	47	43	40	37
5	72	60	52	46	68	57	50	44	52	46	41	47	42	38	42	38	35	32
6	67	54	46	40	63	52	44	39	47	41	36	42	37	33	38	34	31	28
7	62	49	41	35	58	47	40	34	43	37	32	39	34	30	35	31	28	25
8	57	45	37	32	54	43	36	31	39	33	29	36	30	27	32	28	25	23
9	54	41	33	28	51	39	32	27	36	30	26	33	28	24	30	26	22	20
10	50	38	31	26	48	36	29	25	33	27	23	30	25	22	28	23	20	19

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	2.8
10°-20°	469.7	7.7
20°-30°	681.1	11.2
30°-40°	776.2	12.7
40°-50°	756.6	12.4
50°-60°	636.9	10.4
60°-70°	446.5	7.3
70°-80°	229.5	3.8
80°-90°	59.2	1.0
90°-100°	22.2	0.4
100°-110°	136.7	2.2
110°-120°	247.9	4.1
120°-130°	318.1	5.2
130°-140°	342.2	5.6
140°-150°	321.2	5.3
150°-160°	259.8	4.3
160°-170°	168.0	2.8
170°-180°	58.0	1.0
0°-30°	1318.9	21.6
0°-40°	2095.1	34.4
0°-60°	3488.6	57.2
0°-90°	4223.8	69.3
90°-120°	406.7	6.7
90°-150°	1388.2	22.8
90°-180°	1874.0	30.7
0°-180°	6097.9	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°	0	4	7	9	11	5
95°	26	24	7	9	10	33
105°	133	135	135	135	134	141
115°	250	252	252	251	248	247
125°	355	358	358	356	355	317
135°	443	445	445	444	441	341
145°	514	514	514	515	512	321
155°	566	563	564	565	561	260
165°	597	594	594	597	594	168
175°	610	608	608	611	608	58
180°	610	610	610	610	610	



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CATALOG NUMBER: S125RDIW-S1090D470U835-4F0-1E-UDD-F

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°	24.9	23.4	21.9	20.4	18.9	18.0	17.9	17.8	17.7	17.6	17.7
90°	0.5	1.3	2.1	2.9	3.7	4.4	5.1	5.8	6.5	7.2	7.7
92.5°	7.0	6.4	5.8	5.3	4.7	4.7	5.4	6.0	6.6	7.2	7.7
95°	25.8	25.5	25.2	24.9	24.6	22.5	18.7	14.9	11.1	7.2	7.7
97.5°	53.8	54.4	54.9	55.5	56.0	52.5	44.9	37.4	29.8	22.3	19.4
100°	75.5	75.9	76.2	76.5	76.8	77.1	77.5	77.9	78.3	78.7	63.7
102.5°	97.6	98.0	98.4	98.8	99.2	99.5	99.7	99.9	100.2	100.4	97.6
105°	133.0	133.4	133.8	134.2	134.6	134.8	134.8	134.8	134.8	134.8	134.8
107.5°	169.7	169.7	169.7	169.7	169.7	169.8	170.0	170.2	170.4	170.6	170.7
110°	193.6	193.6	193.6	193.6	193.6	193.7	193.9	194.1	194.3	194.5	194.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	216.1	216.3	216.5	216.8	217.0	217.2	217.3	217.5	217.6	217.7	217.3
115°	249.7	250.2	250.7	251.2	251.7	252.0	252.1	252.2	252.3	252.4	252.0
117.5°	284.6	284.5	284.5	284.5	284.5	284.7	285.0	285.4	285.8	286.2	285.7
120°	306.3	306.2	306.1	306.0	305.9	306.0	306.3	306.6	306.9	307.2	307.0
122.5°	325.5	325.8	326.2	326.6	327.0	327.2	327.4	327.5	327.7	327.8	327.6
125°	355.1	355.8	356.5	357.2	357.9	358.3	358.3	358.3	358.3	358.3	357.9
127.5°	383.4	384.0	384.5	385.0	385.5	385.7	385.6	385.6	385.5	385.4	385.2
130°	400.8	401.3	401.8	402.3	402.8	403.1	403.2	403.3	403.4	403.5	403.2
132.5°	418.2	418.8	419.4	419.9	420.5	420.7	420.5	420.3	420.0	419.8	419.8
135°	442.9	443.5	444.1	444.7	445.3	445.5	445.3	445.1	444.9	444.7	444.5
137.5°	465.6	466.1	466.6	467.2	467.7	467.9	467.7	467.5	467.3	467.1	467.2
140°	480.4	480.6	480.8	481.0	481.2	481.3	481.2	481.1	481.0	480.9	481.1
142.5°	493.8	494.0	494.1	494.2	494.3	494.4	494.6	494.7	494.9	495.0	495.0
145°	513.5	513.7	513.9	514.1	514.3	514.4	514.4	514.4	514.4	514.4	514.5
147.5°	530.7	530.6	530.6	530.5	530.5	530.5	530.7	530.8	530.9	531.0	531.1
150°	541.5	541.3	541.1	540.9	540.7	540.7	540.9	541.1	541.3	541.5	541.7
152.5°	552.0	551.6	551.1	550.7	550.2	550.1	550.3	550.5	550.7	550.9	551.1
155°	565.5	564.9	564.3	563.7	563.1	562.9	563.1	563.3	563.5	563.7	564.0
157.5°	575.9	575.5	575.2	574.8	574.4	574.3	574.3	574.3	574.3	574.4	574.7
160°	583.1	582.5	581.9	581.3	580.7	580.5	580.6	580.7	580.8	580.9	581.3
162.5°	588.9	588.3	587.7	587.1	586.5	586.3	586.4	586.5	586.6	586.7	587.2
165°	596.7	596.1	595.5	594.9	594.3	594.0	594.1	594.2	594.3	594.4	595.0
167.5°	602.5	601.9	601.3	600.6	600.0	599.7	599.8	599.9	600.0	600.1	600.9
170°	605.8	605.1	604.3	603.6	602.9	602.6	602.7	602.8	602.9	603.0	603.8
172.5°	607.9	607.2	606.5	605.8	605.1	604.9	605.0	605.2	605.4	605.6	606.3
175°	610.3	609.7	609.1	608.5	607.9	607.6	607.7	607.8	607.9	608.0	608.8
177.5°	611.4	610.9	610.4	609.9	609.4	609.2	609.3	609.4	609.5	609.6	610.1
180°	610.3	610.3	610.3	610.3	610.3	610.3	610.3	610.3	610.3	610.3	610.3



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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°	17.8	17.9	18.0	18.0	17.8	17.7	17.5	17.3
90°	8.2	8.7	9.2	9.7	10.0	10.3	10.6	10.9
92.5°	8.2	8.7	9.2	9.6	9.7	9.9	10.0	10.1
95°	8.2	8.7	9.2	9.5	9.5	9.5	9.5	9.5
97.5°	16.6	13.8	10.9	9.5	9.5	9.5	9.5	9.5
100°	48.8	33.8	18.8	11.1	10.7	10.3	9.9	9.5
102.5°	94.8	91.9	89.1	84.3	77.4	70.6	63.7	56.9
105°	134.8	134.8	134.8	134.8	134.7	134.6	134.5	134.4
107.5°	170.7	170.7	170.7	170.6	170.3	170.0	169.7	169.4
110°	193.9	193.6	193.3	193.2	193.3	193.4	193.5	193.6



TEST NUMBER: P333702

CATALOG NUMBER: S125RDIW-S1090D470U835-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	216.9	216.5	216.2	215.9	215.8	215.6	215.5	215.3
115°	251.6	251.2	250.8	250.3	249.7	249.1	248.5	247.9
117.5°	285.1	284.6	284.1	283.7	283.4	283.2	282.9	282.7
120°	306.8	306.6	306.4	306.0	305.5	305.0	304.5	304.0
122.5°	327.4	327.2	327.0	326.6	326.0	325.4	324.9	324.3
125°	357.5	357.1	356.7	356.3	356.0	355.7	355.4	355.1
127.5°	385.0	384.8	384.6	384.1	383.3	382.6	381.8	381.1
130°	402.9	402.6	402.3	401.9	401.4	400.9	400.4	399.9
132.5°	419.7	419.6	419.6	419.3	418.8	418.3	417.8	417.3
135°	444.3	444.1	443.9	443.5	442.9	442.3	441.7	441.1
137.5°	467.2	467.3	467.3	467.1	466.5	466.0	465.5	465.0
140°	481.3	481.5	481.7	481.5	480.9	480.3	479.7	479.1
142.5°	495.1	495.1	495.2	494.9	494.3	493.7	493.1	492.5
145°	514.6	514.7	514.8	514.5	513.9	513.3	512.7	512.1
147.5°	531.3	531.4	531.5	531.2	530.5	529.8	529.0	528.3
150°	541.9	542.1	542.3	542.0	541.2	540.4	539.6	538.8
152.5°	551.3	551.5	551.7	551.5	550.7	550.0	549.3	548.6
155°	564.3	564.6	564.9	564.6	563.8	563.0	562.2	561.4
157.5°	575.0	575.3	575.6	575.4	574.6	573.8	573.0	572.2
160°	581.7	582.1	582.5	582.3	581.5	580.7	579.9	579.1
162.5°	587.8	588.4	588.9	588.8	587.9	587.0	586.1	585.2
165°	595.7	596.3	596.9	596.8	596.0	595.1	594.3	593.5
167.5°	601.6	602.3	603.0	603.0	602.0	601.1	600.2	599.3
170°	604.6	605.5	606.3	606.2	605.3	604.4	603.5	602.6
172.5°	607.0	607.7	608.5	608.4	607.5	606.6	605.7	604.8
175°	609.6	610.4	611.2	611.2	610.3	609.4	608.5	607.6
177.5°	610.7	611.2	611.8	611.8	611.1	610.5	609.8	609.2
180°	610.3	610.3	610.3	610.3	610.3	610.3	610.3	610.3

(END OF REPORT)