

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: P333584-830

Luminaire Tested: **S125RDIP-S1090D365U830-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333584-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125RDIP-S1090D365U830-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 365 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5175.4 lumens
Efficiency: N/A
Efficacy: 119.0 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

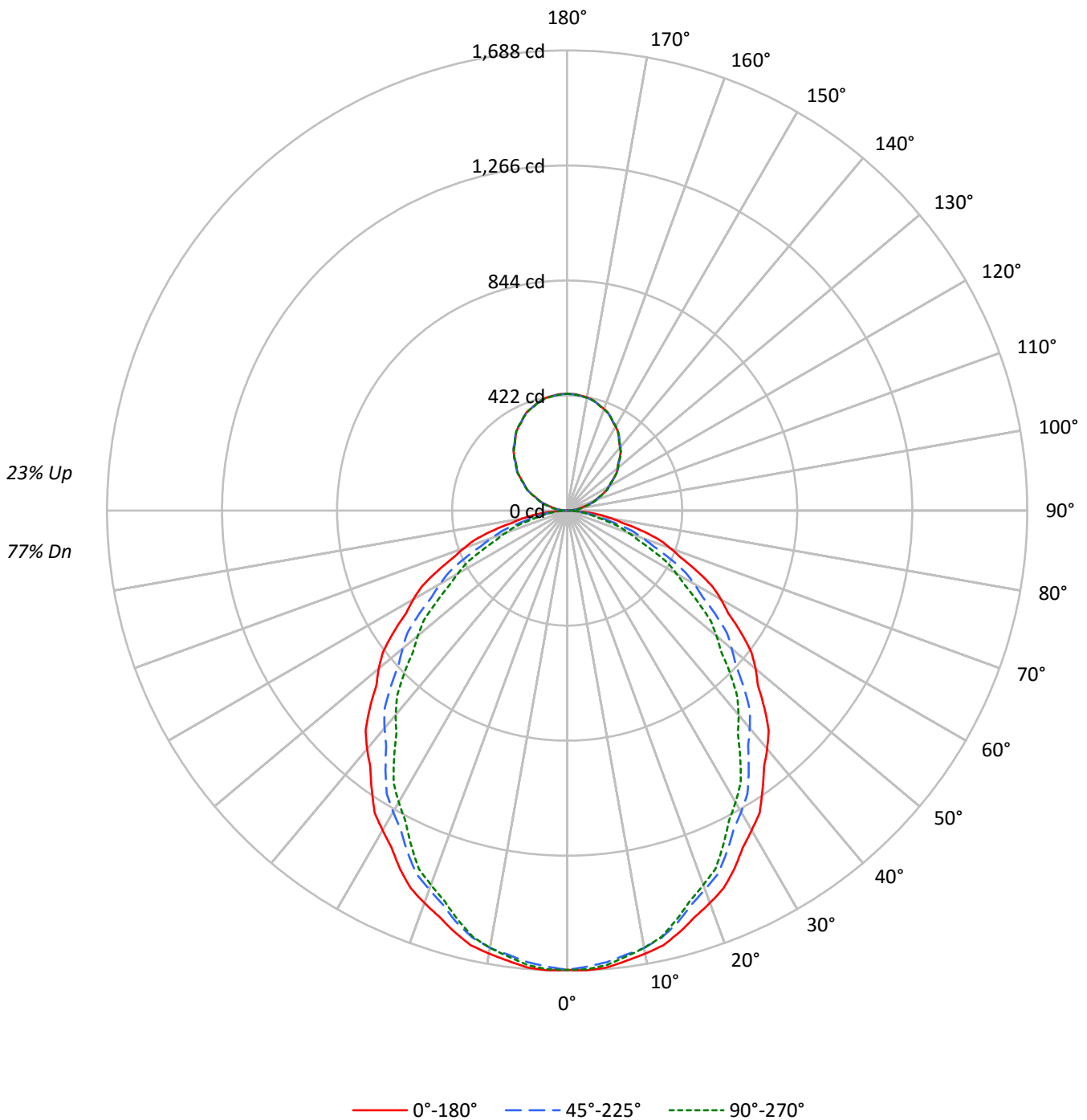
Input Watts (W): 43.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	108	108	108	98	98	98	89	89	89	81	81	81	77
1	104	100	96	92	99	95	92	89	87	84	82	79	77	75	72	71	69	66
2	95	88	81	76	90	84	78	73	77	72	68	70	66	63	64	61	59	55
3	87	77	70	64	83	74	67	62	68	62	58	62	58	54	57	53	50	47
4	80	69	61	54	76	66	59	53	61	54	50	56	51	47	51	47	44	41
5	74	62	53	47	70	59	51	46	54	48	43	50	45	41	46	42	38	36
6	68	56	47	41	65	53	46	40	49	43	38	46	40	36	42	37	34	31
7	63	50	42	36	60	48	41	35	45	38	34	42	36	32	38	34	30	28
8	59	46	38	32	56	44	37	32	41	35	30	38	33	29	35	31	27	25
9	55	42	34	29	52	41	33	29	38	32	27	35	30	26	33	28	25	23
10	51	39	31	26	49	38	31	26	35	29	25	33	27	24	30	26	22	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10880	10880	10880
5°	10906	10781	10847
10°	10823	10681	10681
15°	10694	10465	10380
20°	10529	10162	10040
25°	10337	9865	9648
30°	10097	9517	9214
35°	9851	9159	8728
40°	9622	8786	8250
45°	9344	8368	7728
50°	9064	7913	7185
55°	8740	7479	6604
60°	8415	6952	5983
65°	8031	6339	5269
70°	7593	5574	4539
75°	6984	4699	3778
80°	6152	3689	3169
85°	5180	3016	2831



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.4	3.1
10°-20°	442.7	8.6
20°-30°	642.0	12.4
30°-40°	731.6	14.1
40°-50°	713.2	13.8
50°-60°	600.3	11.6
60°-70°	420.8	8.1
70°-80°	216.3	4.2
80°-90°	55.6	1.1
90°-100°	28.7	0.6
100°-110°	84.7	1.6
110°-120°	143.4	2.8
120°-130°	188.7	3.6
130°-140°	211.5	4.1
140°-150°	207.3	4.0
150°-160°	174.1	3.4
160°-170°	115.7	2.2
170°-180°	40.5	0.8
0°-30°	1243.1	24.0
0°-40°	1974.7	38.2
0°-60°	3288.2	63.5
0°-90°	3980.9	76.9
90°-120°	256.8	5.0
90°-150°	864.2	16.7
90°-180°	1195.0	23.1
0°-180°	5175.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1685	1685	1685	1685	1685	
5°	1682	1677	1663	1675	1673	159
15°	1599	1591	1565	1563	1552	451
25°	1451	1430	1384	1368	1354	667
35°	1250	1218	1162	1126	1107	782
45°	1023	984	916	867	846	789
55°	776	734	664	609	586	694
65°	526	481	415	366	345	520
75°	280	241	188	161	151	296
85°	70	48	41	39	38	79
90°	0	3	5	7	8	4
95°	22	22	26	28	29	23
105°	76	78	80	82	83	81
115°	144	145	146	145	145	142
125°	210	211	212	211	211	188
135°	272	274	275	275	274	210
145°	330	331	332	332	332	206
155°	378	378	378	379	378	174
165°	411	410	410	412	410	116
175°	427	426	426	427	425	41
180°	428	428	428	428	428	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1684.7	1684.7	1684.7	1684.7	1684.7	1684.7	1684.7	1684.7	1684.7	1684.7	1684.7
2.5°	1687.7	1687.1	1686.4	1685.6	1685.0	1683.6	1681.3	1679.0	1676.8	1674.5	1676.8
5°	1682.2	1681.0	1679.9	1678.8	1677.6	1675.5	1672.4	1669.2	1666.1	1663.0	1665.8
7.5°	1665.6	1664.5	1663.4	1662.4	1661.2	1658.9	1655.1	1651.4	1647.7	1644.0	1646.0
10°	1650.3	1649.4	1648.6	1647.8	1646.9	1644.5	1640.6	1636.6	1632.7	1628.7	1629.6
12.5°	1633.0	1631.9	1630.9	1629.8	1628.7	1625.5	1620.2	1614.9	1609.6	1604.2	1604.9
15°	1599.4	1597.7	1596.0	1594.3	1592.6	1588.8	1582.9	1577.0	1571.0	1565.1	1564.8
17.5°	1561.5	1558.9	1556.3	1553.7	1551.0	1546.1	1538.6	1531.2	1523.6	1516.2	1514.8
20°	1532.0	1529.2	1526.4	1523.5	1520.7	1514.8	1505.7	1496.7	1487.6	1478.6	1477.2
22.5°	1499.4	1496.6	1493.7	1490.9	1488.1	1482.0	1472.4	1462.9	1453.4	1443.9	1441.1
25°	1450.6	1446.3	1442.1	1437.8	1433.6	1426.3	1415.8	1405.3	1394.9	1384.4	1380.7
27.5°	1394.6	1389.4	1384.2	1379.1	1373.9	1365.8	1354.6	1343.4	1332.2	1321.0	1315.9
30°	1353.9	1348.5	1343.1	1337.8	1332.4	1323.7	1311.8	1300.0	1288.1	1276.2	1269.7
32.5°	1314.1	1307.9	1301.6	1295.3	1289.0	1279.9	1267.7	1255.7	1243.5	1231.4	1224.3
35°	1249.5	1242.7	1236.0	1229.2	1222.4	1212.6	1199.9	1187.1	1174.4	1161.7	1153.5
37.5°	1186.1	1177.9	1169.6	1161.4	1153.1	1142.5	1129.3	1116.2	1103.1	1090.0	1080.1
40°	1141.3	1132.8	1124.4	1115.9	1107.4	1096.4	1082.8	1069.2	1055.6	1042.1	1031.3
42.5°	1094.5	1085.8	1077.1	1068.4	1059.7	1048.3	1034.3	1020.3	1006.3	992.2	981.9
45°	1023.0	1014.8	1006.6	998.4	990.2	978.4	962.8	947.3	931.7	916.2	904.8
47.5°	949.0	940.3	931.6	923.0	914.4	902.2	886.6	870.8	855.2	839.5	827.8
50°	902.1	892.8	883.4	874.1	864.8	852.1	835.9	819.8	803.7	787.6	775.7
52.5°	851.2	841.7	832.1	822.6	813.0	800.6	785.4	770.2	755.0	739.8	727.0
55°	776.2	767.1	758.1	749.0	740.0	727.5	711.7	695.9	680.0	664.2	651.5
57.5°	700.3	690.7	681.0	671.3	661.7	649.2	634.0	618.7	603.4	588.1	575.7
60°	651.5	641.6	631.7	621.8	611.9	599.3	584.0	568.7	553.5	538.2	525.8
62.5°	599.6	590.1	580.7	571.2	561.8	549.3	533.9	518.3	502.8	487.3	475.8
65°	525.5	515.9	506.2	496.6	487.0	474.8	459.8	444.8	429.8	414.8	403.5
67.5°	451.9	442.3	432.7	423.1	413.5	401.5	387.1	372.8	358.4	344.0	333.8
70°	402.1	392.5	382.9	373.2	363.6	351.8	337.6	323.5	309.3	295.2	286.4
72.5°	353.3	343.8	334.4	325.1	315.7	304.3	291.2	277.9	264.7	251.5	243.4
75°	279.9	271.5	263.0	254.5	246.0	235.8	223.9	212.1	200.2	188.3	182.1
77.5°	207.2	200.4	193.6	186.8	180.0	171.8	162.4	152.9	143.4	133.8	129.5
80°	165.4	158.6	151.8	145.1	138.3	130.9	123.0	115.1	107.2	99.2	96.7
82.5°	124.7	118.6	112.4	106.4	100.3	94.5	89.1	83.6	78.2	72.8	71.6
85°	69.9	64.8	59.8	54.7	49.6	46.4	45.0	43.5	42.1	40.7	40.4
87.5°	23.5	22.1	20.5	19.0	17.6	16.9	16.7	16.6	16.5	16.3	16.4
90°	0.4	0.9	1.5	2.1	2.7	3.3	3.8	4.3	4.8	5.4	5.7
92.5°	8.1	8.5	8.9	9.3	9.7	10.3	10.8	11.5	12.2	12.8	13.3
95°	21.7	21.8	22.0	22.1	22.2	22.7	23.5	24.1	24.9	25.6	26.2
97.5°	36.0	36.0	36.1	36.2	36.2	36.8	37.8	38.8	39.8	40.8	41.4
100°	46.7	46.7	46.7	46.7	46.7	47.1	48.1	49.0	50.0	51.0	51.7
102.5°	58.1	58.4	58.7	59.0	59.3	59.7	60.1	60.6	61.2	61.6	62.4
105°	76.0	76.3	76.7	77.1	77.5	77.9	78.3	78.7	79.2	79.6	80.0
107.5°	95.7	96.0	96.4	96.8	97.2	97.6	97.8	98.2	98.5	98.9	99.1
110°	109.2	109.6	110.0	110.4	110.7	111.0	111.2	111.5	111.7	112.0	112.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	123.1	123.3	123.5	123.7	123.9	124.1	124.4	124.7	125.0	125.3	125.4
115°	143.5	143.8	144.2	144.5	144.8	145.0	145.2	145.2	145.4	145.6	145.5
117.5°	164.1	164.2	164.4	164.5	164.7	164.8	164.9	165.0	165.1	165.3	165.3
120°	176.9	177.3	177.7	178.0	178.3	178.6	178.7	178.7	178.8	178.9	178.9
122.5°	190.8	190.9	191.1	191.1	191.2	191.4	191.6	191.8	192.0	192.2	192.2
125°	209.5	210.0	210.5	210.8	211.3	211.6	211.7	211.7	211.8	211.9	211.7
127.5°	229.5	229.8	230.1	230.3	230.5	230.7	230.8	230.9	231.0	231.0	231.0
130°	241.5	241.9	242.2	242.6	243.0	243.3	243.4	243.6	243.7	243.8	243.7
132.5°	253.5	254.1	254.8	255.3	255.9	256.3	256.2	256.2	256.2	256.1	256.0
135°	272.5	273.0	273.4	273.8	274.3	274.6	274.7	274.7	274.8	274.8	274.8
137.5°	290.4	290.8	291.2	291.6	292.1	292.4	292.6	292.7	292.8	293.0	293.1
140°	301.8	302.2	302.6	302.9	303.3	303.6	303.8	304.1	304.3	304.4	304.6
142.5°	313.3	313.6	313.9	314.2	314.5	314.8	315.1	315.4	315.7	315.9	316.0
145°	330.2	330.5	330.7	331.0	331.3	331.6	331.8	332.1	332.2	332.4	332.4
147.5°	345.7	345.9	346.0	346.2	346.4	346.6	346.8	346.9	347.0	347.2	347.4
150°	356.1	356.1	356.0	355.9	355.8	355.9	356.2	356.6	356.8	357.1	357.1
152.5°	364.7	364.8	364.9	365.0	365.0	365.1	365.3	365.4	365.5	365.6	365.8
155°	377.8	377.8	377.8	377.8	377.8	377.8	377.9	378.0	378.1	378.1	378.4
157.5°	389.5	389.4	389.2	389.0	388.9	388.8	388.9	389.0	389.0	389.1	389.4
160°	396.4	396.2	396.0	395.8	395.6	395.5	395.6	395.6	395.7	395.8	396.1
162.5°	402.6	402.4	402.3	402.1	401.9	401.8	401.8	401.9	401.9	401.9	402.3
165°	410.8	410.6	410.5	410.3	410.2	410.1	410.2	410.3	410.4	410.4	410.8
167.5°	417.6	417.4	417.1	416.8	416.5	416.3	416.3	416.3	416.3	416.3	416.8
170°	421.4	421.1	420.8	420.6	420.2	420.1	420.1	420.1	420.1	420.1	420.6
172.5°	424.0	423.8	423.5	423.2	422.9	422.7	422.7	422.7	422.7	422.7	423.2
175°	427.1	426.8	426.5	426.2	425.9	425.7	425.7	425.7	425.7	425.7	426.2
177.5°	428.6	428.4	428.1	427.9	427.6	427.5	427.4	427.4	427.3	427.3	427.6
180°	428.1	428.1	428.1	428.1	428.1	428.1	428.1	428.1	428.1	428.1	428.1



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1684.7	1684.7	1684.7	1684.7	1684.7	1684.7	1684.7	1684.7
2.5°	1679.0	1681.3	1683.6	1684.5	1684.3	1684.1	1683.9	1683.7
5°	1668.7	1671.5	1674.3	1675.5	1674.9	1674.3	1673.8	1673.2
7.5°	1647.9	1649.9	1651.9	1652.6	1651.9	1651.3	1650.7	1650.0
10°	1630.4	1631.3	1632.1	1632.1	1631.3	1630.4	1629.6	1628.7
12.5°	1605.5	1606.1	1606.8	1606.4	1605.1	1603.8	1602.5	1601.2
15°	1564.5	1564.2	1564.0	1562.5	1560.0	1557.5	1554.9	1552.4
17.5°	1513.3	1511.9	1510.5	1508.8	1506.7	1504.6	1502.5	1500.4
20°	1475.7	1474.3	1472.9	1470.9	1468.4	1465.8	1463.3	1460.8
22.5°	1438.4	1435.6	1432.9	1430.4	1428.3	1426.3	1424.1	1422.0
25°	1377.1	1373.4	1369.7	1366.3	1363.2	1360.1	1357.0	1353.9
27.5°	1310.7	1305.6	1300.4	1296.4	1293.4	1290.3	1287.3	1284.4
30°	1263.2	1256.7	1250.2	1245.7	1243.1	1240.6	1238.0	1235.5
32.5°	1217.1	1209.8	1202.7	1197.5	1194.3	1191.1	1187.8	1184.6
35°	1145.3	1137.1	1128.9	1122.9	1118.9	1114.9	1111.0	1107.0
37.5°	1070.3	1060.5	1050.6	1043.8	1039.9	1036.0	1032.2	1028.3
40°	1020.6	1009.8	999.1	992.0	988.6	985.2	981.8	978.5
42.5°	971.7	961.3	951.0	943.4	938.4	933.5	928.5	923.5
45°	893.5	882.2	870.9	863.1	858.8	854.6	850.4	846.1
47.5°	816.2	804.6	793.0	784.8	780.0	775.3	770.7	766.0
50°	763.8	752.0	740.1	732.1	727.8	723.6	719.3	715.1
52.5°	714.3	701.4	688.6	680.1	675.9	671.7	667.4	663.2
55°	638.8	626.0	613.3	604.6	600.1	595.6	591.1	586.5
57.5°	563.3	550.8	538.4	530.1	526.1	522.1	518.0	514.1
60°	513.3	500.9	488.4	480.1	475.9	471.6	467.4	463.2
62.5°	464.3	452.7	441.2	433.3	429.0	424.8	420.6	416.3
65°	392.2	380.9	369.6	361.7	357.5	353.3	349.0	344.8
67.5°	323.4	313.0	302.7	295.8	292.4	289.0	285.6	282.2
70°	277.7	268.9	260.1	254.0	250.6	247.2	243.8	240.4
72.5°	235.3	227.2	219.0	213.9	211.6	209.3	207.1	204.8
75°	175.9	169.7	163.4	159.3	157.3	155.3	153.4	151.4
77.5°	125.2	120.8	116.4	113.5	112.1	110.6	109.1	107.6
80°	94.2	91.6	89.1	87.5	86.9	86.3	85.8	85.2
82.5°	70.4	69.2	68.1	67.3	66.9	66.5	66.3	65.9
85°	40.2	39.9	39.6	39.3	39.0	38.7	38.5	38.2
87.5°	16.5	16.6	16.6	16.6	16.4	16.2	16.0	15.8
90°	6.0	6.4	6.8	7.1	7.4	7.5	7.7	8.0
92.5°	13.8	14.2	14.7	15.1	15.3	15.4	15.6	15.7
95°	26.7	27.2	27.7	28.1	28.2	28.4	28.5	28.7
97.5°	41.8	42.3	42.8	43.1	43.2	43.3	43.4	43.5
100°	52.3	53.0	53.6	54.0	54.2	54.4	54.5	54.7
102.5°	63.1	63.8	64.6	65.0	65.2	65.4	65.6	65.8
105°	80.5	81.0	81.4	81.7	81.9	82.2	82.4	82.7
107.5°	99.3	99.5	99.7	99.9	99.8	99.8	99.8	99.8
110°	112.4	112.6	112.8	112.9	112.8	112.7	112.6	112.6



TEST NUMBER: P333584-830

CATALOG NUMBER: S125RDIP-S1090D365U830-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	125.5	125.5	125.6	125.6	125.5	125.4	125.3	125.2
115°	145.4	145.3	145.2	145.2	145.2	145.1	145.0	144.9
117.5°	165.4	165.5	165.5	165.4	165.1	164.9	164.6	164.2
120°	178.9	178.9	178.9	178.7	178.4	178.1	177.9	177.6
122.5°	192.1	192.0	192.0	191.8	191.6	191.3	191.1	190.9
125°	211.6	211.4	211.3	211.1	211.1	211.0	210.9	210.8
127.5°	230.9	230.8	230.7	230.6	230.5	230.4	230.2	230.1
130°	243.7	243.6	243.6	243.5	243.3	243.2	243.0	242.9
132.5°	256.0	255.9	255.8	255.7	255.4	255.2	255.1	254.9
135°	274.8	274.8	274.8	274.7	274.4	274.1	273.8	273.5
137.5°	293.2	293.3	293.4	293.2	292.8	292.5	292.1	291.7
140°	304.8	304.9	305.1	305.0	304.6	304.3	303.9	303.5
142.5°	316.1	316.2	316.3	316.1	315.8	315.4	315.1	314.7
145°	332.4	332.4	332.4	332.3	332.2	331.9	331.7	331.5
147.5°	347.6	347.8	348.0	347.8	347.3	346.8	346.3	345.8
150°	357.1	357.1	357.1	357.0	356.9	356.8	356.6	356.5
152.5°	366.0	366.2	366.4	366.3	366.1	365.8	365.5	365.2
155°	378.7	379.0	379.3	379.3	378.9	378.5	378.1	377.8
157.5°	389.6	390.0	390.3	390.2	389.7	389.2	388.7	388.2
160°	396.3	396.6	396.9	396.9	396.5	396.2	395.8	395.4
162.5°	402.6	402.9	403.3	403.3	402.8	402.4	402.0	401.5
165°	411.0	411.3	411.6	411.5	411.0	410.7	410.2	409.7
167.5°	417.3	417.6	418.1	418.1	417.6	417.2	416.7	416.3
170°	420.9	421.4	421.9	421.8	421.3	420.8	420.3	419.7
172.5°	423.7	424.0	424.5	424.5	424.0	423.6	423.1	422.6
175°	426.6	427.1	427.5	427.4	427.0	426.4	425.9	425.4
177.5°	428.0	428.4	428.7	428.7	428.3	427.8	427.4	427.0
180°	428.1	428.1	428.1	428.1	428.1	428.1	428.1	428.1

(END OF REPORT)