

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: P333585-940

Luminaire Tested: **S125RDIP-S1090D365U940-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333585-940
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-S1090D365U940-4F0-1E-UDD-F4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 365 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4938.3 lumens
Efficiency: N/A
Efficacy: 113.5 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

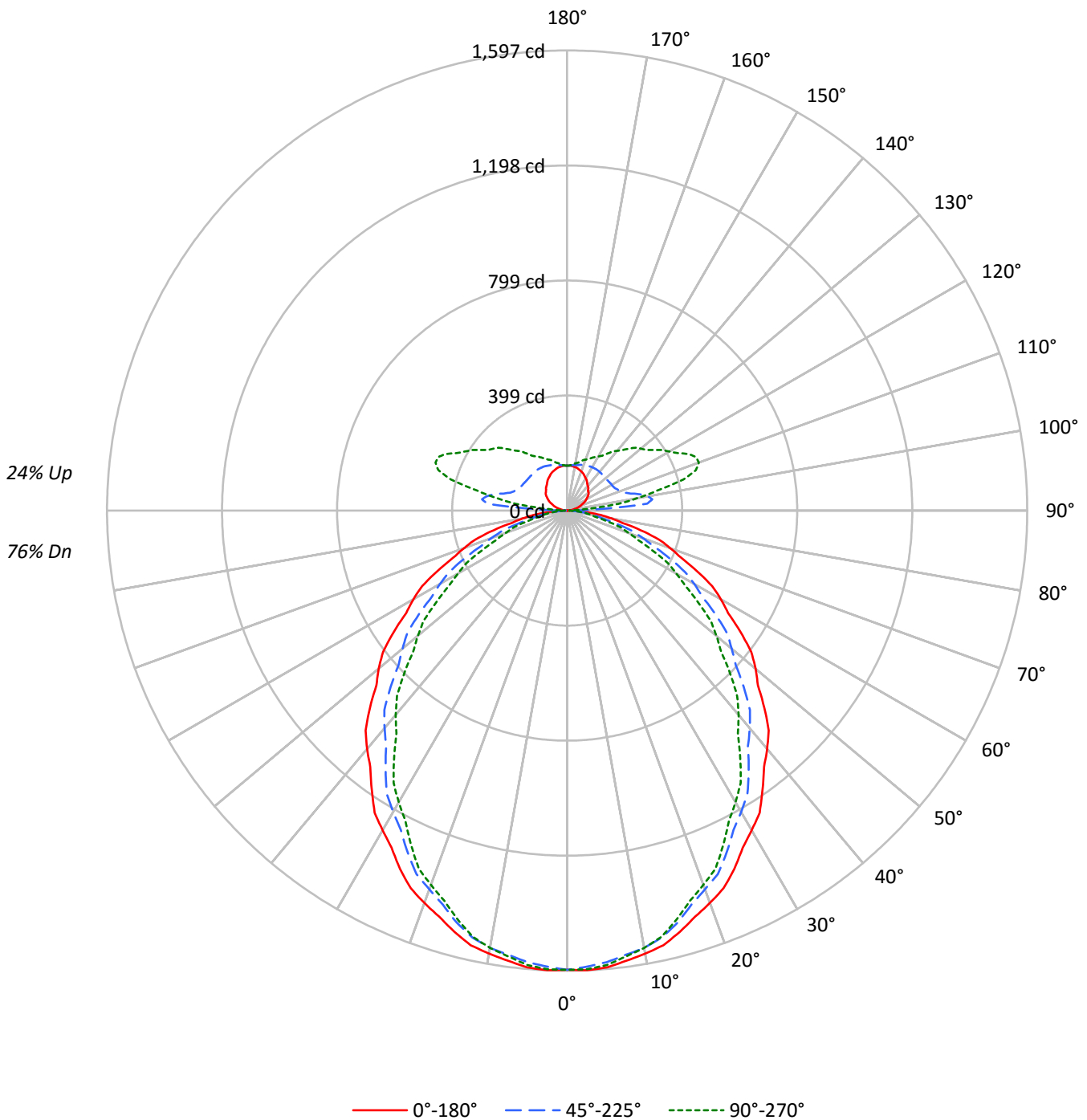
Input Watts (W): 43.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	113	113	113	113	108	108	108	108	98	98	98	89	89	89	80	80	80	76
1	104	100	96	92	99	95	92	88	87	84	81	79	77	75	72	70	69	65
2	95	87	81	76	90	84	78	73	76	72	68	70	66	63	63	61	58	55
3	87	77	70	64	83	74	67	62	68	62	58	62	57	54	56	53	50	47
4	80	69	61	54	76	66	58	53	60	54	49	55	50	46	51	47	43	40
5	73	61	53	47	70	59	51	46	54	48	43	50	45	40	46	41	38	35
6	68	55	47	41	64	53	46	40	49	43	38	45	40	36	42	37	34	31
7	63	50	42	36	60	48	41	35	45	38	34	41	36	32	38	33	30	28
8	59	46	38	32	56	44	37	32	41	35	30	38	32	28	35	30	27	25
9	55	42	34	29	52	41	33	28	38	31	27	35	30	26	32	28	24	22
10	51	39	31	26	49	37	30	26	35	29	25	32	27	23	30	26	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10293	10293	10293
5°	10317	10200	10263
10°	10239	10105	10105
15°	10117	9900	9819
20°	9961	9614	9498
25°	9779	9333	9128
30°	9552	9004	8717
35°	9320	8665	8257
40°	9104	8312	7804
45°	8840	7916	7311
50°	8575	7486	6797
55°	8268	7076	6248
60°	7962	6577	5660
65°	7597	5997	4985
70°	7183	5274	4296
75°	6608	4447	3573
80°	5821	3492	2998
85°	4905	2853	2675



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.9	3.0
10°-20°	418.8	8.5
20°-30°	607.3	12.3
30°-40°	692.2	14.0
40°-50°	674.7	13.7
50°-60°	567.9	11.5
60°-70°	398.1	8.1
70°-80°	204.6	4.1
80°-90°	52.6	1.1
90°-100°	113.3	2.3
100°-110°	243.6	4.9
110°-120°	228.6	4.6
120°-130°	185.2	3.8
130°-140°	148.7	3.0
140°-150°	112.2	2.3
150°-160°	79.0	1.6
160°-170°	46.5	0.9
170°-180°	15.1	0.3
0°-30°	1176.0	23.8
0°-40°	1868.2	37.8
0°-60°	3110.9	63.0
0°-90°	3766.2	76.3
90°-120°	585.4	11.9
90°-150°	1031.5	20.9
90°-180°	1172.0	23.7
0°-180°	4938.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1594	1594	1594	1594	1594	
5°	1591	1586	1573	1585	1583	151
15°	1513	1505	1481	1479	1469	426
25°	1372	1353	1310	1294	1281	631
35°	1182	1152	1099	1065	1047	740
45°	968	931	867	820	800	746
55°	734	694	628	576	555	657
65°	497	455	392	346	326	492
75°	265	228	178	153	143	280
85°	66	45	38	37	36	74
90°	0	3	5	7	7	4
95°	10	31	279	127	74	11
105°	36	50	228	450	418	38
115°	64	77	183	395	465	63
125°	88	103	176	314	366	78
135°	103	124	175	264	304	80
145°	120	138	175	218	240	75
155°	137	148	171	193	201	63
165°	150	154	164	174	176	42
175°	156	156	157	159	158	15
180°	156	156	156	156	156	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8
2.5°	1596.7	1596.1	1595.4	1594.7	1594.1	1592.8	1590.6	1588.5	1586.4	1584.2	1586.4
5°	1591.4	1590.4	1589.3	1588.2	1587.2	1585.1	1582.2	1579.2	1576.3	1573.3	1576.0
7.5°	1575.7	1574.8	1573.7	1572.7	1571.6	1569.4	1565.8	1562.4	1558.8	1555.3	1557.2
10°	1561.3	1560.5	1559.7	1558.9	1558.1	1555.9	1552.1	1548.4	1544.6	1540.9	1541.7
12.5°	1544.9	1543.9	1542.9	1541.9	1540.9	1537.8	1532.9	1527.8	1522.8	1517.7	1518.3
15°	1513.1	1511.5	1509.9	1508.3	1506.7	1503.2	1497.5	1491.9	1486.3	1480.7	1480.4
17.5°	1477.3	1474.8	1472.4	1469.9	1467.4	1462.7	1455.6	1448.6	1441.5	1434.4	1433.1
20°	1449.4	1446.7	1444.0	1441.4	1438.7	1433.1	1424.5	1415.9	1407.4	1398.8	1397.5
22.5°	1418.5	1415.9	1413.2	1410.5	1407.8	1402.0	1393.0	1384.0	1375.0	1366.0	1363.4
25°	1372.3	1368.3	1364.3	1360.3	1356.3	1349.3	1339.4	1329.5	1319.6	1309.7	1306.3
27.5°	1319.4	1314.5	1309.6	1304.8	1299.8	1292.2	1281.6	1271.0	1260.3	1249.7	1244.9
30°	1280.9	1275.8	1270.7	1265.6	1260.5	1252.3	1241.1	1229.8	1218.6	1207.4	1201.2
32.5°	1243.2	1237.3	1231.4	1225.5	1219.5	1210.9	1199.4	1187.9	1176.4	1165.0	1158.2
35°	1182.1	1175.7	1169.3	1162.9	1156.5	1147.2	1135.1	1123.1	1111.1	1099.0	1091.3
37.5°	1122.1	1114.4	1106.5	1098.8	1090.9	1080.8	1068.4	1056.0	1043.6	1031.2	1021.8
40°	1079.8	1071.7	1063.7	1055.7	1047.7	1037.2	1024.4	1011.6	998.7	985.9	975.7
42.5°	1035.5	1027.3	1019.0	1010.8	1002.6	991.8	978.5	965.3	952.0	938.7	929.0
45°	967.9	960.1	952.3	944.6	936.8	925.6	910.9	896.2	881.5	866.7	856.0
47.5°	897.8	889.6	881.4	873.3	865.0	853.5	838.7	823.9	809.0	794.2	783.2
50°	853.5	844.6	835.8	827.0	818.1	806.1	790.9	775.6	760.4	745.1	733.9
52.5°	805.3	796.3	787.2	778.2	769.2	757.4	743.1	728.6	714.3	699.9	687.8
55°	734.3	725.8	717.2	708.6	700.1	688.3	673.3	658.4	643.4	628.4	616.4
57.5°	662.5	653.4	644.3	635.1	626.0	614.2	599.8	585.3	570.9	556.4	544.7
60°	616.4	607.0	597.6	588.3	578.9	566.9	552.5	538.1	523.6	509.2	497.4
62.5°	567.2	558.3	549.4	540.4	531.5	519.7	505.1	490.4	475.7	461.0	450.1
65°	497.1	488.0	478.9	469.8	460.7	449.2	435.0	420.8	406.6	392.4	381.7
67.5°	427.6	418.5	409.4	400.3	391.2	379.9	366.2	352.7	339.1	325.5	315.8
70°	380.4	371.3	362.2	353.1	344.0	332.8	319.4	306.0	292.7	279.3	271.0
72.5°	334.2	325.3	316.4	307.6	298.6	287.9	275.4	262.9	250.4	237.9	230.2
75°	264.8	256.8	248.8	240.8	232.7	223.1	211.9	200.6	189.4	178.2	172.3
77.5°	196.0	189.6	183.2	176.7	170.3	162.6	153.6	144.6	135.6	126.6	122.5
80°	156.5	150.1	143.7	137.2	130.8	123.9	116.4	108.9	101.4	93.9	91.5
82.5°	118.0	112.2	106.4	100.7	94.9	89.4	84.3	79.1	74.0	68.8	67.8
85°	66.2	61.3	56.5	51.7	46.9	43.9	42.5	41.2	39.9	38.5	38.3
87.5°	22.2	20.8	19.4	18.0	16.7	16.0	15.8	15.7	15.5	15.4	15.5
90°	0.4	0.6	1.2	1.9	2.5	3.1	3.5	4.1	4.4	5.1	5.4
92.5°	3.8	4.6	7.3	11.2	16.7	25.9	43.1	71.9	103.3	101.6	82.2
95°	10.4	10.7	13.2	16.7	23.6	37.8	71.5	140.9	227.8	279.2	273.2
97.5°	17.3	17.7	19.4	22.9	29.2	39.3	61.6	112.4	203.5	298.2	345.7
100°	22.0	22.6	24.0	27.4	33.4	42.9	61.2	102.1	181.6	284.5	363.4
102.5°	27.4	27.7	28.7	32.5	38.0	47.2	63.4	97.8	164.9	260.6	352.8
105°	35.6	35.6	37.2	40.3	45.4	54.2	68.0	96.1	148.7	228.5	319.0
107.5°	43.7	44.3	45.8	48.4	53.7	61.6	75.0	99.0	142.0	206.3	284.4
110°	49.5	50.1	51.4	54.2	58.9	67.1	80.1	101.8	139.9	196.0	264.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	55.3	55.9	56.9	59.7	64.5	72.4	84.8	105.3	139.9	189.9	250.1
115°	63.7	64.3	65.3	68.0	72.8	80.7	92.4	110.6	140.9	183.4	234.2
117.5°	71.2	72.1	73.2	76.0	81.4	89.0	100.0	116.6	142.9	180.2	224.6
120°	76.2	77.2	78.5	81.3	86.7	94.5	105.6	120.7	145.0	178.7	219.4
122.5°	81.6	82.2	83.3	86.1	91.9	99.9	110.8	125.2	146.7	177.5	214.8
125°	88.3	88.9	90.4	93.3	99.2	107.5	117.9	131.4	149.7	175.8	208.7
127.5°	93.5	94.4	96.4	100.0	106.4	114.6	124.6	137.1	153.0	175.1	203.0
130°	96.8	97.7	100.2	104.3	110.9	119.1	128.9	140.9	155.1	174.6	199.2
132.5°	99.2	100.5	103.5	108.1	114.9	123.1	133.0	144.2	157.3	174.6	196.2
135°	103.3	104.6	108.4	113.4	120.1	128.6	138.3	148.7	160.4	174.6	192.5
137.5°	108.5	109.5	113.0	118.1	124.6	133.3	142.2	152.1	163.3	175.0	189.3
140°	111.6	112.5	116.3	121.4	127.3	135.8	145.0	154.4	164.5	175.2	187.8
142.5°	115.1	115.7	119.3	124.4	130.1	138.1	146.7	155.7	165.2	175.5	186.5
145°	120.4	121.0	124.1	128.6	134.3	141.5	149.7	157.6	166.0	175.2	184.7
147.5°	125.9	126.3	129.0	133.1	138.0	144.4	151.6	158.7	166.4	174.4	182.7
150°	129.2	129.8	132.1	136.2	140.5	145.9	152.8	159.4	166.4	173.6	181.2
152.5°	132.8	133.1	135.1	138.7	142.9	147.7	154.1	160.0	166.1	172.6	179.4
155°	137.4	137.4	139.3	142.4	145.6	150.0	155.3	160.4	165.4	170.9	176.5
157.5°	141.6	141.5	143.0	145.7	148.5	151.9	156.4	160.7	164.6	168.9	173.7
160°	144.4	144.0	145.3	147.5	150.0	152.8	156.9	160.7	163.9	167.6	171.5
162.5°	146.6	146.3	147.6	149.5	151.5	153.8	157.5	160.5	163.1	166.1	169.4
165°	150.0	149.4	150.3	151.9	153.2	155.1	157.6	160.1	162.0	163.9	166.4
167.5°	152.3	151.9	152.6	153.4	154.3	155.5	157.6	159.3	160.2	161.7	163.5
170°	153.8	153.5	153.8	154.4	155.1	156.0	157.6	158.8	159.4	160.4	161.7
172.5°	154.8	154.3	154.5	155.2	155.5	156.0	157.3	158.4	158.5	158.9	159.9
175°	156.0	155.3	155.7	156.0	156.0	156.0	156.9	157.6	157.3	157.3	157.6
177.5°	156.6	156.0	156.0	156.3	156.0	156.0	156.6	156.9	156.3	156.3	156.6
180°	156.3	156.3	156.3	156.3	156.3	156.3	156.3	156.3	156.3	156.3	156.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8	1593.8
2.5°	1588.5	1590.6	1592.8	1593.7	1593.5	1593.3	1593.0	1592.9
5°	1578.7	1581.4	1584.0	1585.1	1584.6	1584.0	1583.5	1583.0
7.5°	1559.1	1560.9	1562.8	1563.4	1562.8	1562.3	1561.7	1561.0
10°	1542.5	1543.3	1544.1	1544.1	1543.3	1542.5	1541.7	1540.9
12.5°	1518.9	1519.5	1520.1	1519.7	1518.5	1517.3	1516.1	1514.8
15°	1480.2	1479.9	1479.6	1478.3	1475.9	1473.5	1471.1	1468.6
17.5°	1431.7	1430.4	1429.1	1427.5	1425.4	1423.4	1421.5	1419.5
20°	1396.2	1394.8	1393.5	1391.6	1389.2	1386.8	1384.4	1382.0
22.5°	1360.8	1358.2	1355.6	1353.3	1351.3	1349.3	1347.3	1345.3
25°	1302.8	1299.3	1295.8	1292.6	1289.7	1286.7	1283.8	1280.9
27.5°	1240.0	1235.2	1230.3	1226.5	1223.6	1220.8	1217.9	1215.1
30°	1195.1	1188.9	1182.8	1178.5	1176.1	1173.7	1171.3	1168.9
32.5°	1151.5	1144.6	1137.8	1132.9	1129.9	1126.9	1123.7	1120.7
35°	1083.5	1075.8	1068.0	1062.3	1058.5	1054.8	1051.1	1047.3
37.5°	1012.5	1003.3	993.9	987.5	983.8	980.2	976.5	972.9
40°	965.5	955.4	945.2	938.5	935.3	932.1	928.9	925.7
42.5°	919.3	909.5	899.7	892.5	887.8	883.2	878.4	873.7
45°	845.3	834.6	823.9	816.5	812.5	808.5	804.5	800.5
47.5°	772.2	761.2	750.2	742.4	738.0	733.5	729.2	724.7
50°	722.6	711.4	700.2	692.6	688.6	684.6	680.6	676.5
52.5°	675.7	663.6	651.5	643.5	639.4	635.4	631.4	627.4
55°	604.3	592.3	580.2	572.0	567.8	563.5	559.2	554.9
57.5°	532.9	521.1	509.3	501.5	497.8	493.9	490.1	486.3
60°	485.6	473.9	462.1	454.2	450.2	446.2	442.2	438.2
62.5°	439.3	428.3	417.4	409.9	405.9	401.9	397.9	393.9
65°	371.0	360.3	349.6	342.2	338.2	334.2	330.2	326.2
67.5°	305.9	296.1	286.3	279.8	276.6	273.4	270.2	267.0
70°	262.7	254.4	246.1	240.3	237.1	233.9	230.7	227.5
72.5°	222.6	214.9	207.2	202.3	200.2	198.0	195.9	193.8
75°	166.4	160.5	154.6	150.7	148.8	147.0	145.1	143.2
77.5°	118.4	114.3	110.1	107.4	106.0	104.6	103.3	101.8
80°	89.1	86.7	84.3	82.8	82.2	81.7	81.1	80.6
82.5°	66.6	65.5	64.4	63.7	63.3	63.0	62.7	62.3
85°	38.0	37.7	37.5	37.2	36.9	36.6	36.4	36.1
87.5°	15.6	15.6	15.7	15.7	15.5	15.3	15.2	14.9
90°	5.7	6.0	6.3	7.0	7.0	7.0	7.2	7.2
92.5°	55.8	40.5	30.5	25.9	21.8	21.0	20.6	20.1
95°	226.6	178.7	139.9	113.4	91.0	81.6	79.1	74.1
97.5°	337.4	303.9	266.1	229.3	209.8	192.2	183.1	179.0
100°	387.6	372.2	339.7	306.9	285.2	262.5	250.8	245.8
102.5°	404.5	414.0	398.5	376.3	353.0	336.9	324.2	320.5
105°	394.6	437.7	451.6	448.2	438.0	427.7	421.3	417.6
107.5°	359.0	416.6	452.2	468.7	473.8	473.8	471.6	469.1
110°	332.8	392.7	437.1	463.9	478.0	484.0	486.2	486.2



TEST NUMBER: P333585-940

CATALOG NUMBER: S125RDIP-S1090D365U940-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	312.1	369.0	413.9	445.5	466.2	476.5	482.0	484.3
115°	286.1	335.0	378.2	412.5	437.1	452.2	461.0	465.1
117.5°	269.4	311.5	348.7	380.2	404.7	420.4	429.2	431.7
120°	260.3	298.1	332.8	360.5	383.9	399.0	407.5	410.0
122.5°	253.5	288.6	319.4	345.4	366.2	380.0	388.6	390.8
125°	243.6	275.7	303.2	325.8	343.5	356.4	363.4	366.5
127.5°	233.5	263.5	289.1	310.3	326.4	337.8	344.3	345.7
130°	227.2	254.9	279.6	300.1	315.8	326.2	332.5	334.4
132.5°	220.9	246.9	269.2	288.9	304.7	315.0	320.8	323.0
135°	212.8	234.4	254.7	272.6	286.5	296.9	302.6	304.4
137.5°	205.8	223.4	240.1	255.4	267.8	277.2	282.5	284.5
140°	202.0	216.8	231.3	244.5	256.2	264.4	269.1	270.7
142.5°	198.8	211.2	223.7	235.2	245.1	252.1	256.5	257.9
145°	194.5	204.2	214.0	222.5	230.1	235.4	238.9	240.1
147.5°	190.4	198.3	205.9	212.3	218.3	222.6	224.5	225.2
150°	188.2	195.1	201.1	206.7	211.4	215.3	216.5	216.8
152.5°	185.7	191.8	197.2	201.7	205.6	208.7	209.9	210.3
155°	181.8	186.9	191.3	194.7	197.9	200.1	201.1	201.3
157.5°	178.1	182.2	185.7	188.3	190.8	192.6	193.5	193.4
160°	175.6	178.7	181.8	184.0	186.3	187.8	188.4	188.2
162.5°	172.7	175.7	178.3	180.3	182.0	183.2	183.4	183.3
165°	168.9	171.1	173.0	174.6	175.8	176.5	176.5	176.5
167.5°	165.2	166.7	168.2	169.3	170.0	170.5	170.2	170.1
170°	163.3	164.2	165.1	165.8	166.4	166.7	166.7	166.4
172.5°	161.0	161.9	162.6	163.0	163.1	163.7	163.2	162.8
175°	158.5	158.5	159.2	159.2	159.2	159.4	158.8	158.5
177.5°	156.9	157.0	157.0	157.0	156.9	157.0	156.3	156.3
180°	156.3	156.3	156.3	156.3	156.3	156.3	156.3	156.3

(END OF REPORT)