

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: P333597-940

Luminaire Tested: **S125RDIP-S1090D810U940-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333597-940
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-S1090D810U940-4F0-1E-UDD-F4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 810 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6360.6 lumens
Efficiency: N/A
Efficacy: 116.9 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

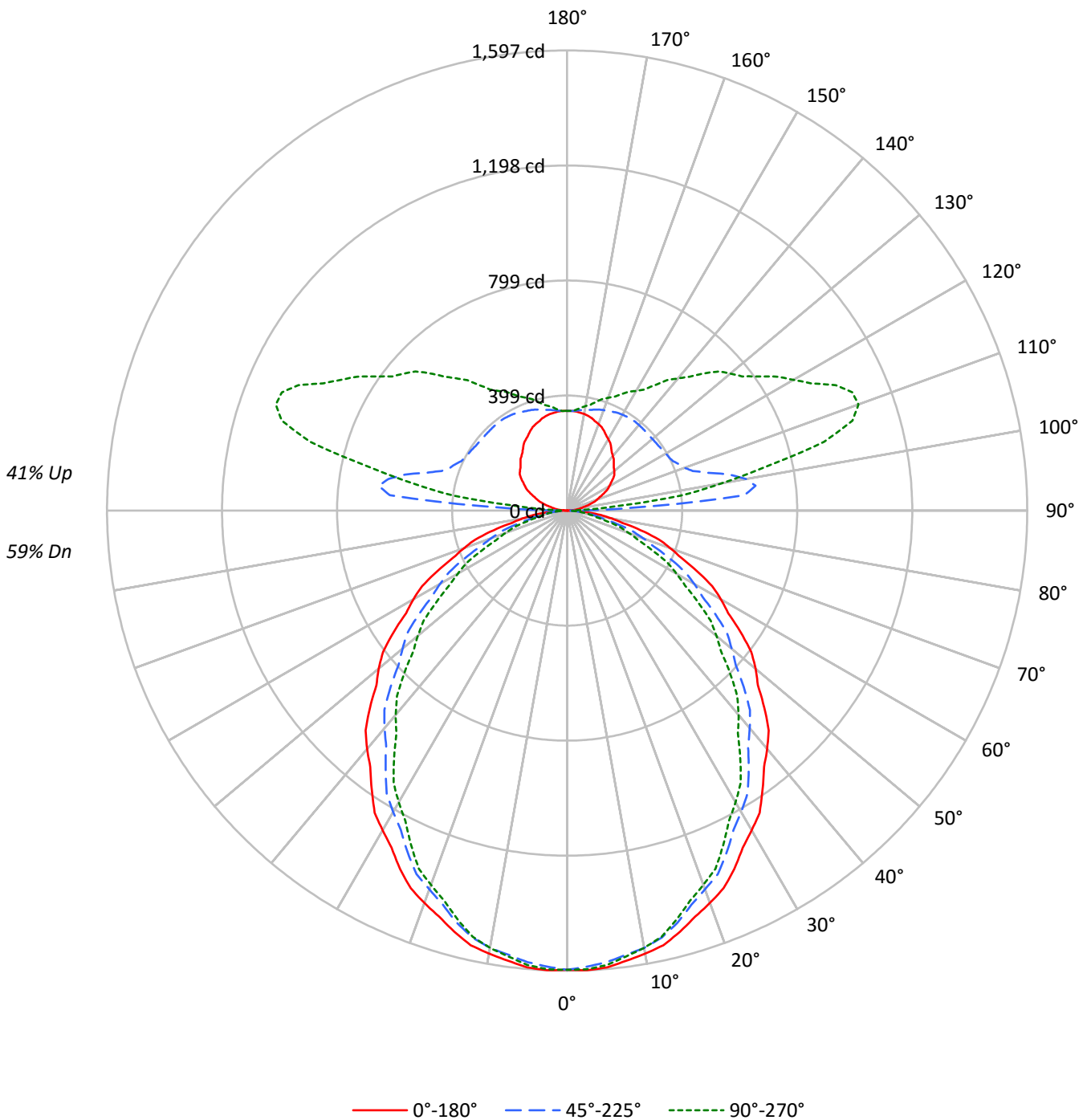
Input Watts (W): 54.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	109	109	109	102	102	102	102	88	88	88	76	76	76	65	65	65	59
1	100	96	92	89	93	90	86	83	78	76	73	67	66	64	58	56	55	50
2	91	84	78	73	85	79	73	69	69	65	61	59	56	54	51	49	47	43
3	84	74	67	61	78	69	63	58	61	56	52	53	49	46	45	43	40	36
4	77	66	58	52	71	62	55	49	54	49	44	47	43	39	41	37	35	31
5	70	59	51	45	65	55	48	42	49	43	38	42	38	34	37	33	30	27
6	65	53	45	39	60	50	42	37	44	38	34	38	34	30	33	30	27	24
7	60	48	40	34	56	45	38	33	40	34	30	35	30	27	31	27	24	22
8	56	43	36	30	52	41	34	29	36	31	27	32	27	24	28	24	22	19
9	52	40	32	27	49	38	31	26	34	28	24	30	25	22	26	22	20	17
10	49	37	29	24	46	35	28	24	31	25	22	27	23	20	24	20	18	16

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	2.4
10°-20°	418.8	6.6
20°-30°	607.3	9.5
30°-40°	692.2	10.9
40°-50°	674.7	10.6
50°-60°	567.9	8.9
60°-70°	398.1	6.3
70°-80°	204.6	3.2
80°-90°	53.6	0.8
90°-100°	250.7	3.9
100°-110°	538.9	8.5
110°-120°	505.7	8.0
120°-130°	409.8	6.4
130°-140°	328.9	5.2
140°-150°	248.2	3.9
150°-160°	174.7	2.7
160°-170°	103.0	1.6
170°-180°	33.5	0.5
0°-30°	1176.0	18.5
0°-40°	1868.2	29.4
0°-60°	3110.9	48.9
0°-90°	3767.2	59.2
90°-120°	1295.2	20.4
90°-150°	2282.2	35.9
90°-180°	2593.0	40.8
0°-180°	6360.6	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°	1	6	11	15	16	4
95°	23	68	618	280	164	24
105°	79	110	506	995	924	83
115°	141	170	406	875	1029	139
125°	195	229	389	696	811	173
135°	229	275	386	583	674	178
145°	266	305	388	483	531	167
155°	304	327	378	427	446	140
165°	332	341	363	385	390	93
175°	345	345	348	352	351	33
180°	346	346	346	346	346	



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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°	22.3	21.0	19.7	18.5	17.3	16.7	16.6	16.7	16.6	16.7	16.9
90°	0.7	1.4	2.8	4.2	5.6	7.0	7.7	9.1	9.7	11.1	11.9
92.5°	8.5	10.3	16.1	24.8	36.8	57.2	95.2	159.1	228.4	224.8	182.0
95°	23.0	23.7	29.2	36.9	52.3	83.6	158.3	311.7	504.1	617.8	604.5
97.5°	38.2	39.1	43.0	50.6	64.4	87.0	136.3	248.8	450.1	659.7	764.8
100°	48.8	50.2	53.0	60.6	73.9	94.8	135.3	225.9	401.6	629.6	803.9
102.5°	60.5	61.3	63.6	71.8	83.9	104.3	140.3	216.4	364.8	576.6	780.5
105°	78.8	78.8	82.3	89.3	100.4	119.9	150.6	212.7	329.1	505.5	705.6
107.5°	96.7	98.0	101.4	107.1	118.7	136.3	165.9	219.1	314.1	456.6	629.2
110°	109.5	110.8	113.6	119.9	130.4	148.5	177.1	225.2	309.6	433.6	585.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	122.3	123.7	125.9	132.2	142.7	160.2	187.7	233.0	309.6	420.3	553.3
115°	140.8	142.2	144.4	150.6	161.0	178.5	204.3	244.7	311.7	405.8	518.0
117.5°	157.6	159.7	161.9	168.2	180.0	196.9	221.3	258.2	316.3	398.7	497.0
120°	168.7	170.9	173.6	179.9	191.7	209.2	233.5	267.1	320.7	395.3	485.3
122.5°	180.5	182.0	184.2	190.5	203.5	220.9	245.3	277.1	324.6	392.5	475.2
125°	195.2	196.6	200.1	206.3	219.6	237.7	260.7	290.7	331.2	389.1	461.5
127.5°	206.8	208.9	213.4	221.3	235.4	253.5	275.7	303.3	338.6	387.4	449.0
130°	214.0	216.2	221.7	230.8	245.4	263.6	285.2	311.7	343.0	386.3	440.7
132.5°	219.6	222.3	229.0	239.2	254.3	272.5	294.1	318.9	348.0	386.3	434.0
135°	228.7	231.5	239.9	251.0	265.6	284.5	306.1	329.1	354.9	386.3	426.0
137.5°	240.1	242.2	250.0	261.2	275.5	294.9	314.6	336.6	361.1	387.1	418.9
140°	246.8	248.9	257.3	268.4	281.7	300.5	320.7	341.6	363.9	387.6	415.5
142.5°	254.6	256.2	263.9	275.1	287.8	305.5	324.6	344.5	365.6	388.3	412.8
145°	266.4	267.7	274.7	284.5	297.0	313.1	331.2	348.6	367.5	387.6	408.6
147.5°	278.6	279.5	285.4	294.5	305.4	319.5	335.4	351.2	368.1	385.8	404.2
150°	285.9	287.2	292.1	301.2	310.9	322.8	338.1	352.8	368.1	384.1	400.9
152.5°	293.6	294.5	298.8	306.7	316.0	326.7	340.9	353.9	367.6	381.9	397.0
155°	304.0	304.0	308.2	315.1	322.1	331.9	343.8	354.9	366.0	377.9	390.5
157.5°	313.2	313.1	316.4	322.4	328.5	335.9	346.1	355.6	364.3	373.7	384.3
160°	319.3	318.6	321.5	326.3	331.9	338.1	347.2	355.6	362.6	371.0	379.3
162.5°	324.3	323.7	326.5	330.7	335.2	340.4	348.3	355.0	360.9	367.6	374.8
165°	331.9	330.5	332.6	336.1	338.9	343.0	348.6	354.2	358.4	362.6	368.1
167.5°	336.9	336.2	337.4	339.4	341.3	344.0	348.6	352.5	354.5	357.7	361.6
170°	340.3	339.6	340.3	341.6	343.0	345.1	348.6	351.4	352.8	354.9	357.7
172.5°	342.5	341.3	341.9	343.3	344.1	345.1	348.0	350.3	350.5	351.5	353.7
175°	345.1	343.8	344.5	345.1	345.1	345.1	347.2	348.6	347.9	347.9	348.6
177.5°	346.3	345.3	345.3	345.8	345.3	345.3	346.3	347.0	345.8	345.8	346.3
180°	345.8	345.8	345.8	345.8	345.8	345.8	345.8	345.8	345.8	345.8	345.8



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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°	16.9	17.1	17.2	17.4	17.2	16.9	16.9	16.7
90°	12.6	13.3	13.9	15.3	15.3	15.3	16.1	16.1
92.5°	123.6	89.7	67.5	57.2	48.2	46.5	45.6	44.5
95°	501.3	395.3	309.6	251.0	201.5	180.6	175.0	163.8
97.5°	746.6	672.3	588.7	507.3	464.2	425.2	404.9	396.0
100°	857.6	823.4	751.6	679.1	631.0	580.8	555.0	543.9
102.5°	894.9	916.1	881.5	832.5	781.0	745.3	717.3	708.9
105°	872.9	968.5	999.2	991.5	969.1	946.1	932.2	923.8
107.5°	794.2	921.8	1000.5	1036.9	1048.2	1048.0	1043.5	1037.9
110°	736.3	868.7	967.1	1026.3	1057.7	1070.9	1075.8	1075.8



TEST NUMBER: P333597-940

CATALOG NUMBER: S125RDIP-S1090D810U940-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	690.5	816.3	915.7	985.6	1031.4	1054.2	1066.3	1071.4
115°	633.1	741.2	836.7	912.7	967.1	1000.5	1020.0	1029.1
117.5°	596.0	689.1	771.4	841.2	895.5	930.1	949.5	955.0
120°	575.9	659.6	736.3	797.6	849.2	882.7	901.5	907.0
122.5°	560.9	638.4	706.7	764.2	810.2	840.9	859.7	864.7
125°	539.0	610.1	670.7	720.9	760.0	788.5	803.9	810.8
127.5°	516.7	583.0	639.6	686.6	722.0	747.3	761.8	764.8
130°	502.7	564.1	618.4	663.8	698.7	721.7	735.6	739.8
132.5°	488.7	546.2	595.6	639.2	674.0	697.1	709.9	714.6
135°	470.6	518.7	563.4	603.1	633.7	656.7	669.3	673.5
137.5°	455.3	494.2	531.3	565.0	592.5	613.4	625.0	629.6
140°	446.9	479.7	511.8	541.0	566.9	585.0	595.4	598.9
142.5°	439.7	467.4	495.0	520.4	542.3	557.7	567.6	570.4
145°	430.2	451.8	473.4	492.2	509.0	520.8	528.5	531.3
147.5°	421.2	438.8	455.4	469.7	482.9	492.4	496.9	498.1
150°	416.3	431.6	444.8	457.4	467.9	476.2	479.0	479.7
152.5°	410.6	424.4	436.5	446.2	455.0	461.7	464.5	465.2
155°	402.3	413.5	423.2	430.9	437.8	442.7	444.8	445.5
157.5°	394.0	403.1	410.6	416.7	422.1	426.1	428.1	427.9
160°	388.3	395.3	402.3	407.2	412.1	415.5	417.0	416.3
162.5°	382.2	388.6	394.5	398.8	402.6	405.5	405.8	405.6
165°	373.7	378.6	382.8	386.3	389.1	390.5	390.5	390.5
167.5°	365.6	368.8	372.0	374.5	375.9	377.2	376.7	376.5
170°	361.1	363.3	365.3	366.8	368.1	368.8	368.8	368.1
172.5°	356.1	358.2	359.8	360.6	360.9	362.1	361.1	360.3
175°	350.7	350.7	352.1	352.1	352.1	352.8	351.4	350.7
177.5°	347.0	347.5	347.5	347.5	347.0	347.5	345.8	345.8
180°	345.8	345.8	345.8	345.8	345.8	345.8	345.8	345.8

(END OF REPORT)