

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: P333597-927

Luminaire Tested: **S125RDIP-S1090D810U927-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333597-927
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-S1090D810U927-4F0-1E-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: 5650.6 lumens
Efficiency: N/A
Efficacy: 103.9 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

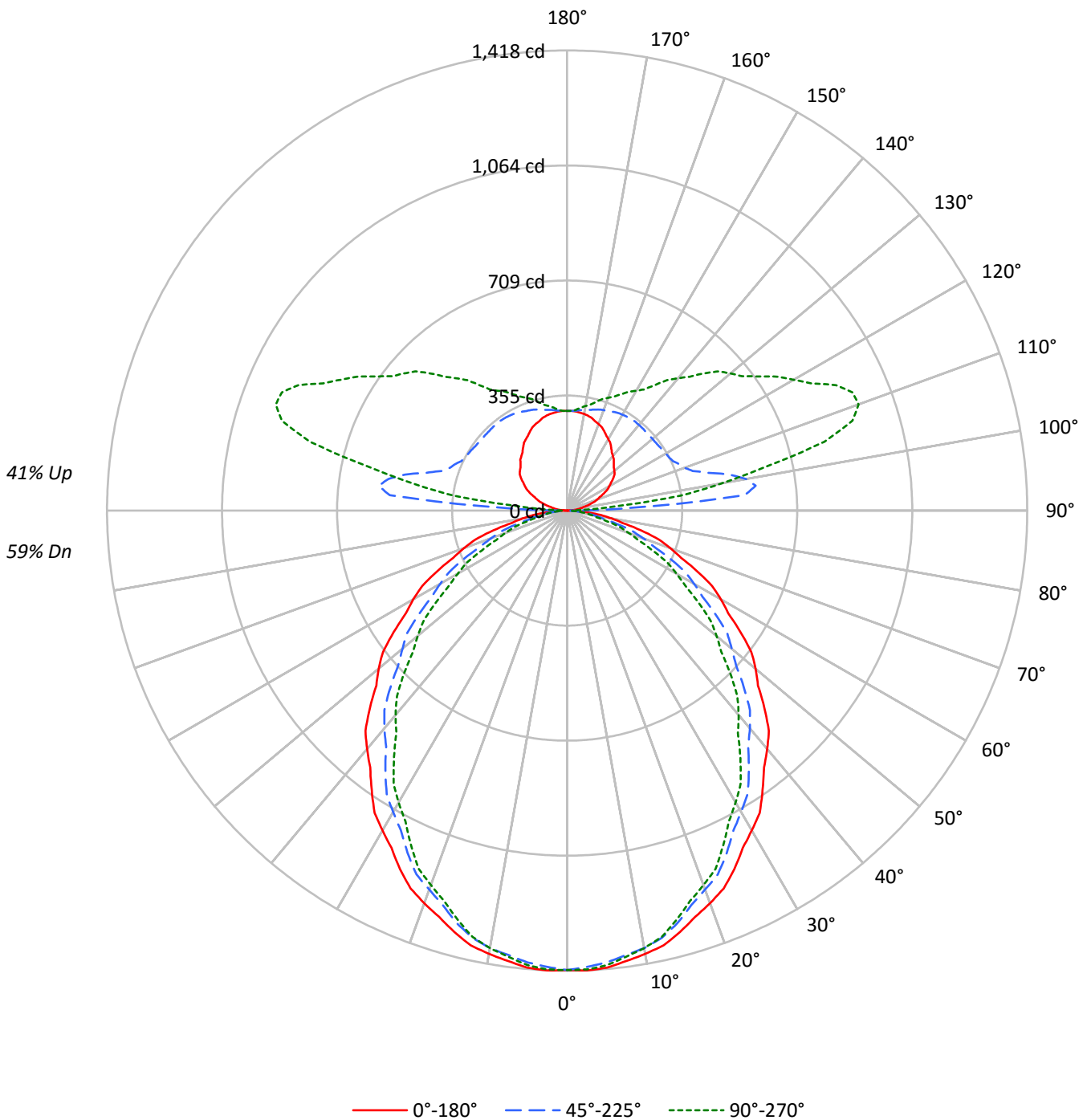
Input Watts (W): 54.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	9144	9144	9144
5°	9166	9061	9117
10°	9096	8977	8977
15°	8988	8795	8723
20°	8849	8541	8438
25°	8688	8292	8109
30°	8486	7999	7744
35°	8280	7698	7335
40°	8088	7384	6933
45°	7853	7033	6495
50°	7618	6650	6038
55°	7346	6286	5551
60°	7073	5842	5028
65°	6748	5327	4429
70°	6381	4685	3816
75°	5871	3950	3174
80°	5170	3102	2663
85°	4357	2534	2379



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.1	2.4
10°-20°	372.1	6.6
20°-30°	539.6	9.5
30°-40°	614.9	10.9
40°-50°	599.4	10.6
50°-60°	504.6	8.9
60°-70°	353.7	6.3
70°-80°	181.8	3.2
80°-90°	47.6	0.8
90°-100°	222.7	3.9
100°-110°	478.7	8.5
110°-120°	449.3	8.0
120°-130°	364.1	6.4
130°-140°	292.2	5.2
140°-150°	220.5	3.9
150°-160°	155.2	2.7
160°-170°	91.5	1.6
170°-180°	29.8	0.5
0°-30°	1044.8	18.5
0°-40°	1659.7	29.4
0°-60°	2763.6	48.9
0°-90°	3346.7	59.2
90°-120°	1150.7	20.4
90°-150°	2027.5	35.9
90°-180°	2304.0	40.8
0°-180°	5650.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1416	1416	1416	1416	1416	
5°	1414	1409	1398	1408	1406	134
15°	1344	1337	1315	1314	1305	379
25°	1219	1202	1164	1150	1138	561
35°	1050	1023	976	946	930	657
45°	860	827	770	729	711	663
55°	652	617	558	512	493	583
65°	442	404	349	307	290	437
75°	235	202	158	136	127	249
85°	59	40	34	33	32	66
90°	1	6	10	13	14	4
95°	20	60	549	249	146	22
105°	70	98	449	884	821	74
115°	125	151	360	777	914	123
125°	173	203	346	618	720	154
135°	203	244	343	518	598	158
145°	237	271	344	429	472	148
155°	270	290	336	379	396	124
165°	295	303	322	342	347	83
175°	307	307	309	313	312	29
180°	307	307	307	307	307	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9
2.5°	1418.5	1417.9	1417.4	1416.7	1416.2	1415.0	1413.1	1411.2	1409.3	1407.4	1409.3
5°	1413.8	1412.9	1411.9	1411.0	1410.0	1408.2	1405.6	1403.0	1400.3	1397.7	1400.1
7.5°	1399.9	1399.0	1398.0	1397.2	1396.2	1394.2	1391.1	1388.0	1384.8	1381.7	1383.4
10°	1387.0	1386.3	1385.6	1384.9	1384.2	1382.2	1378.9	1375.5	1372.2	1368.9	1369.6
12.5°	1372.5	1371.6	1370.7	1369.8	1368.9	1366.2	1361.8	1357.2	1352.8	1348.3	1348.8
15°	1344.3	1342.8	1341.4	1340.0	1338.6	1335.4	1330.4	1325.4	1320.4	1315.4	1315.2
17.5°	1312.4	1310.2	1308.1	1305.8	1303.6	1299.4	1293.2	1286.9	1280.6	1274.3	1273.1
20°	1287.6	1285.2	1282.9	1280.5	1278.1	1273.1	1265.5	1257.9	1250.3	1242.7	1241.5
22.5°	1260.2	1257.8	1255.5	1253.1	1250.7	1245.5	1237.5	1229.5	1221.5	1213.5	1211.2
25°	1219.2	1215.6	1212.0	1208.5	1204.9	1198.7	1189.9	1181.1	1172.4	1163.6	1160.5
27.5°	1172.1	1167.8	1163.4	1159.1	1154.8	1148.0	1138.5	1129.1	1119.7	1110.2	1106.0
30°	1137.9	1133.4	1128.9	1124.3	1119.8	1112.5	1102.6	1092.6	1082.6	1072.6	1067.1
32.5°	1104.5	1099.2	1093.9	1088.7	1083.4	1075.7	1065.5	1055.3	1045.1	1035.0	1029.0
35°	1050.2	1044.5	1038.8	1033.1	1027.4	1019.1	1008.4	997.8	987.1	976.4	969.5
37.5°	996.9	990.0	983.0	976.1	969.2	960.2	949.1	938.1	927.1	916.1	907.8
40°	959.3	952.1	945.0	937.9	930.7	921.5	910.1	898.7	887.2	875.8	866.8
42.5°	919.9	912.6	905.3	897.9	890.7	881.1	869.3	857.5	845.7	833.9	825.3
45°	859.8	852.9	846.1	839.2	832.3	822.3	809.2	796.1	783.1	770.0	760.5
47.5°	797.6	790.3	783.0	775.8	768.5	758.3	745.1	731.9	718.7	705.6	695.8
50°	758.2	750.4	742.5	734.7	726.8	716.1	702.6	689.0	675.5	661.9	652.0
52.5°	715.4	707.4	699.3	691.3	683.3	672.9	660.1	647.3	634.5	621.8	611.0
55°	652.4	644.8	637.2	629.5	621.9	611.5	598.2	584.9	571.6	558.3	547.6
57.5°	588.6	580.5	572.4	564.2	556.1	545.7	532.8	520.0	507.2	494.3	483.9
60°	547.6	539.2	530.9	522.6	514.3	503.7	490.8	478.0	465.2	452.3	441.9
62.5°	503.9	496.0	488.1	480.1	472.1	461.7	448.7	435.6	422.6	409.6	399.9
65°	441.6	433.6	425.5	417.4	409.3	399.0	386.4	373.8	361.2	348.6	339.1
67.5°	379.9	371.8	363.7	355.6	347.5	337.5	325.3	313.3	301.3	289.1	280.5
70°	337.9	329.9	321.8	313.7	305.6	295.6	283.8	271.9	260.0	248.1	240.7
72.5°	296.9	289.0	281.1	273.2	265.3	255.8	244.7	233.5	222.4	211.4	204.5
75°	235.3	228.1	221.0	213.9	206.8	198.2	188.2	178.2	168.3	158.3	153.0
77.5°	174.1	168.4	162.7	157.0	151.3	144.4	136.5	128.5	120.5	112.5	108.8
80°	139.0	133.3	127.6	121.9	116.2	110.0	103.4	96.7	90.1	83.4	81.3
82.5°	104.8	99.7	94.5	89.4	84.3	79.5	74.9	70.3	65.8	61.2	60.2
85°	58.8	54.5	50.2	45.9	41.7	39.0	37.8	36.6	35.4	34.2	34.0
87.5°	19.8	18.6	17.5	16.4	15.4	14.8	14.7	14.8	14.7	14.8	15.0
90°	0.6	1.3	2.5	3.7	5.0	6.2	6.8	8.1	8.6	9.9	10.5
92.5°	7.5	9.2	14.3	22.0	32.7	50.8	84.6	141.3	202.9	199.7	161.7
95°	20.4	21.1	26.0	32.8	46.4	74.3	140.6	276.9	447.8	548.8	537.0
97.5°	33.9	34.7	38.2	45.0	57.2	77.3	121.1	221.0	399.9	586.1	679.5
100°	43.3	44.6	47.1	53.9	65.7	84.2	120.2	200.7	356.8	559.4	714.2
102.5°	53.8	54.5	56.5	63.8	74.5	92.7	124.6	192.3	324.1	512.2	693.4
105°	70.0	70.0	73.1	79.3	89.2	106.5	133.8	188.9	292.4	449.1	626.9
107.5°	85.9	87.1	90.1	95.1	105.4	121.0	147.4	194.6	279.0	405.6	559.0
110°	97.3	98.5	100.9	106.5	115.8	131.9	157.3	200.1	275.0	385.2	520.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	108.6	109.9	111.9	117.4	126.7	142.4	166.8	207.0	275.0	373.4	491.5
115°	125.1	126.4	128.3	133.8	143.1	158.6	181.5	217.4	276.9	360.5	460.2
117.5°	140.0	141.9	143.9	149.4	159.9	174.9	196.6	229.3	281.0	354.2	441.5
120°	149.9	151.8	154.2	159.8	170.3	185.8	207.5	237.3	284.9	351.2	431.1
122.5°	160.3	161.7	163.7	169.2	180.8	196.2	217.9	246.1	288.4	348.7	422.2
125°	173.4	174.7	177.8	183.3	195.1	211.2	231.6	258.3	294.2	345.6	410.0
127.5°	183.7	185.6	189.6	196.6	209.1	225.2	244.9	269.4	300.8	344.1	398.9
130°	190.1	192.0	196.9	205.0	218.0	234.2	253.3	276.9	304.8	343.2	391.5
132.5°	195.1	197.5	203.4	212.5	225.9	242.1	261.3	283.3	309.2	343.2	385.6
135°	203.2	205.7	213.1	223.0	236.0	252.7	272.0	292.4	315.3	343.2	378.4
137.5°	213.3	215.2	222.1	232.0	244.8	262.0	279.5	299.0	320.8	343.9	372.2
140°	219.3	221.1	228.5	238.4	250.3	267.0	284.9	303.5	323.3	344.4	369.2
142.5°	226.2	227.6	234.5	244.4	255.7	271.4	288.4	306.0	324.8	344.9	366.7
145°	236.6	237.8	244.1	252.7	263.9	278.1	294.2	309.7	326.5	344.4	363.0
147.5°	247.5	248.3	253.6	261.7	271.3	283.8	297.9	312.0	327.0	342.8	359.1
150°	254.0	255.2	259.5	267.6	276.2	286.8	300.4	313.4	327.0	341.3	356.2
152.5°	260.9	261.7	265.5	272.5	280.7	290.3	302.9	314.4	326.5	339.3	352.7
155°	270.1	270.1	273.8	280.0	286.1	294.9	305.4	315.3	325.2	335.7	346.9
157.5°	278.2	278.1	281.1	286.4	291.8	298.4	307.4	315.9	323.6	332.0	341.4
160°	283.7	283.0	285.6	289.9	294.9	300.4	308.5	315.9	322.1	329.5	337.0
162.5°	288.1	287.6	290.0	293.8	297.8	302.4	309.4	315.4	320.6	326.5	333.0
165°	294.9	293.6	295.5	298.6	301.0	304.8	309.7	314.7	318.4	322.1	327.0
167.5°	299.3	298.7	299.8	301.5	303.2	305.6	309.7	313.1	314.9	317.7	321.2
170°	302.3	301.7	302.3	303.5	304.8	306.6	309.7	312.2	313.4	315.3	317.7
172.5°	304.3	303.2	303.7	305.0	305.7	306.6	309.2	311.2	311.4	312.3	314.3
175°	306.6	305.4	306.0	306.6	306.6	306.6	308.5	309.7	309.1	309.1	309.7
177.5°	307.7	306.7	306.7	307.2	306.7	306.7	307.7	308.2	307.2	307.2	307.7
180°	307.2	307.2	307.2	307.2	307.2	307.2	307.2	307.2	307.2	307.2	307.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9
2.5°	1411.2	1413.1	1415.0	1415.8	1415.6	1415.5	1415.2	1415.1
5°	1402.5	1404.9	1407.2	1408.2	1407.7	1407.2	1406.8	1406.3
7.5°	1385.1	1386.7	1388.4	1388.9	1388.4	1387.9	1387.3	1386.8
10°	1370.3	1371.0	1371.7	1371.7	1371.0	1370.3	1369.6	1368.9
12.5°	1349.4	1349.9	1350.4	1350.1	1349.0	1348.0	1346.9	1345.8
15°	1314.9	1314.7	1314.5	1313.3	1311.1	1309.0	1306.9	1304.7
17.5°	1271.9	1270.7	1269.6	1268.1	1266.3	1264.6	1262.8	1261.1
20°	1240.3	1239.1	1237.9	1236.3	1234.1	1232.0	1229.9	1227.7
22.5°	1208.9	1206.6	1204.3	1202.2	1200.5	1198.7	1196.9	1195.2
25°	1157.4	1154.3	1151.2	1148.3	1145.7	1143.1	1140.5	1137.9
27.5°	1101.6	1097.3	1093.0	1089.6	1087.0	1084.5	1082.0	1079.5
30°	1061.7	1056.2	1050.8	1046.9	1044.8	1042.7	1040.5	1038.4
32.5°	1022.9	1016.8	1010.8	1006.5	1003.8	1001.1	998.3	995.6
35°	962.6	955.7	948.8	943.7	940.4	937.1	933.7	930.4
37.5°	899.5	891.3	883.0	877.3	874.0	870.8	867.5	864.3
40°	857.8	848.7	839.7	833.8	830.9	828.1	825.2	822.4
42.5°	816.7	807.9	799.3	792.9	788.7	784.6	780.4	776.2
45°	751.0	741.5	732.0	725.4	721.8	718.3	714.7	711.1
47.5°	686.0	676.2	666.5	659.6	655.6	651.6	647.8	643.8
50°	642.0	632.0	622.0	615.3	611.7	608.2	604.6	601.0
52.5°	600.3	589.5	578.8	571.6	568.1	564.5	560.9	557.4
55°	536.9	526.2	515.5	508.2	504.4	500.6	496.8	493.0
57.5°	473.4	463.0	452.5	445.5	442.2	438.8	435.4	432.1
60°	431.4	421.0	410.5	403.5	400.0	396.4	392.8	389.3
62.5°	390.2	380.5	370.8	364.2	360.6	357.0	353.5	349.9
65°	329.6	320.1	310.6	304.0	300.5	296.9	293.3	289.8
67.5°	271.8	263.1	254.4	248.6	245.7	242.9	240.0	237.2
70°	233.4	226.0	218.6	213.5	210.6	207.8	204.9	202.1
72.5°	197.7	190.9	184.1	179.7	177.8	175.9	174.0	172.1
75°	147.8	142.6	137.4	133.9	132.2	130.6	128.9	127.2
77.5°	105.2	101.6	97.8	95.4	94.2	92.9	91.7	90.5
80°	79.1	77.0	74.9	73.5	73.0	72.6	72.1	71.6
82.5°	59.2	58.1	57.2	56.6	56.2	55.9	55.7	55.4
85°	33.7	33.5	33.3	33.0	32.8	32.6	32.3	32.1
87.5°	15.1	15.2	15.3	15.4	15.3	15.1	15.1	14.8
90°	11.2	11.8	12.4	13.6	13.6	13.6	14.3	14.3
92.5°	109.8	79.7	60.0	50.8	42.9	41.4	40.5	39.5
95°	445.4	351.2	275.0	223.0	179.0	160.4	155.5	145.5
97.5°	663.3	597.2	523.0	450.7	412.4	377.7	359.7	351.8
100°	761.8	731.5	667.7	603.3	560.5	515.9	493.1	483.2
102.5°	795.0	813.8	783.2	739.6	693.9	662.1	637.2	629.8
105°	775.5	860.4	887.6	880.8	860.9	840.5	828.1	820.7
107.5°	705.6	818.9	888.8	921.1	931.2	931.1	927.0	922.0
110°	654.1	771.7	859.1	911.7	939.6	951.4	955.8	955.8



TEST NUMBER: P333597-927

CATALOG NUMBER: S125RDIP-S1090D810U927-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	613.5	725.2	813.5	875.6	916.3	936.5	947.3	951.8
115°	562.4	658.5	743.3	810.8	859.1	888.8	906.2	914.3
117.5°	529.5	612.2	685.3	747.3	795.6	826.2	843.5	848.4
120°	511.6	586.0	654.1	708.6	754.4	784.2	800.9	805.8
122.5°	498.3	567.1	627.8	678.9	719.8	747.0	763.7	768.2
125°	478.8	542.0	595.9	640.5	675.2	700.5	714.2	720.3
127.5°	459.0	517.9	568.2	610.0	641.4	663.8	676.8	679.5
130°	446.6	501.1	549.4	589.7	620.7	641.1	653.5	657.2
132.5°	434.2	485.2	529.1	567.8	598.8	619.2	630.7	634.9
135°	418.1	460.8	500.5	535.8	563.0	583.4	594.6	598.3
137.5°	404.5	439.0	472.0	501.9	526.4	544.9	555.2	559.4
140°	397.0	426.1	454.6	480.6	503.6	519.7	528.9	532.0
142.5°	390.6	415.3	439.7	462.3	481.8	495.4	504.2	506.8
145°	382.1	401.4	420.6	437.3	452.2	462.7	469.5	472.0
147.5°	374.2	389.8	404.6	417.2	429.0	437.4	441.4	442.5
150°	369.8	383.4	395.1	406.3	415.7	423.0	425.6	426.1
152.5°	364.8	377.0	387.8	396.4	404.3	410.2	412.6	413.3
155°	357.4	367.3	376.0	382.8	389.0	393.3	395.1	395.8
157.5°	350.0	358.1	364.8	370.2	375.0	378.6	380.3	380.2
160°	345.0	351.2	357.4	361.7	366.1	369.2	370.4	369.8
162.5°	339.5	345.2	350.5	354.3	357.7	360.2	360.5	360.4
165°	332.0	336.4	340.1	343.2	345.6	346.9	346.9	346.9
167.5°	324.8	327.6	330.5	332.7	334.0	335.1	334.6	334.5
170°	320.8	322.7	324.6	325.8	327.0	327.6	327.6	327.0
172.5°	316.4	318.2	319.6	320.4	320.6	321.7	320.8	320.1
175°	311.6	311.6	312.8	312.8	312.8	313.4	312.2	311.6
177.5°	308.2	308.7	308.7	308.7	308.2	308.7	307.2	307.2
180°	307.2	307.2	307.2	307.2	307.2	307.2	307.2	307.2

(END OF REPORT)