

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: P333579-840

Luminaire Tested: **S125RDIP-S850D1205U840-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333579-840
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-S850D1205U840-4F0-1E-UDD-F4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 1205 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7648.4 lumens
Efficiency: N/A
Efficacy: 134.4 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

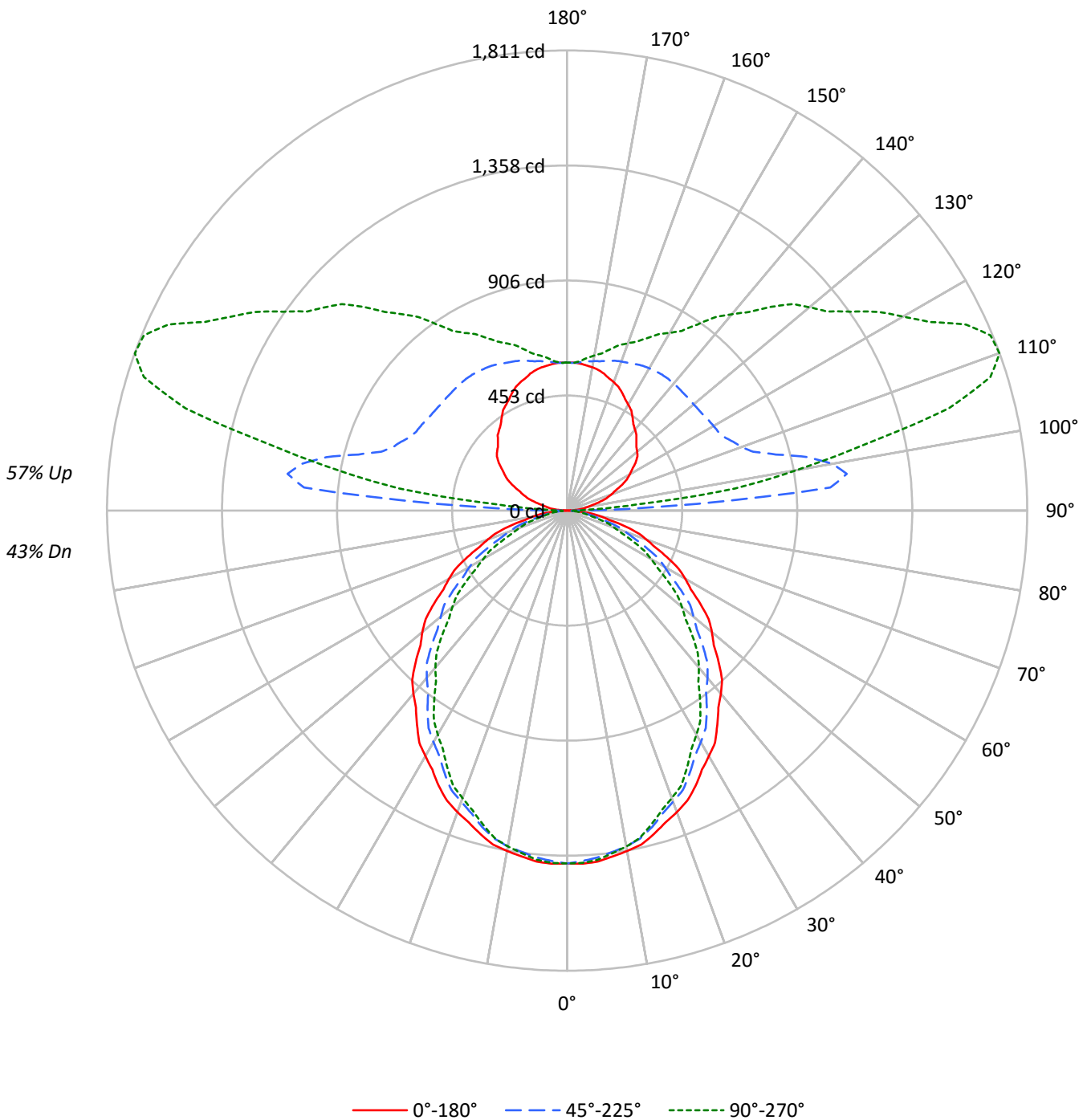
Input Watts (W): 56.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	105	105	105	105	96	96	96	96	79	79	79	64	64	64	50	50	50	43
1	96	92	88	85	88	84	81	78	70	68	66	56	55	54	44	43	42	37
2	88	81	75	70	80	74	69	65	61	58	55	50	47	45	39	37	36	31
3	80	71	64	58	73	65	59	54	54	50	46	44	41	38	35	33	31	26
4	73	63	55	49	67	58	51	46	48	43	39	39	36	33	31	29	27	23
5	67	56	48	42	61	52	45	39	43	38	34	35	32	29	28	25	23	20
6	62	50	42	37	57	46	39	34	39	34	30	32	28	25	26	23	21	18
7	57	45	38	32	52	42	35	30	35	30	26	29	25	22	23	20	18	16
8	53	41	34	28	49	38	31	27	32	27	23	27	23	20	21	19	16	14
9	50	38	30	25	45	35	28	24	30	24	21	25	21	18	20	17	15	13
10	46	34	27	23	42	32	26	21	27	22	19	23	19	16	18	16	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8969	8969	8969
5°	8989	8887	8941
10°	8921	8804	8804
15°	8815	8625	8555
20°	8678	8376	8276
25°	8521	8131	7952
30°	8322	7845	7594
35°	8121	7550	7194
40°	7932	7242	6800
45°	7701	6898	6370
50°	7471	6523	5923
55°	7203	6164	5444
60°	6935	5730	4930
65°	6619	5225	4343
70°	6258	4594	3743
75°	5759	3873	3114
80°	5069	3042	2615
85°	4276	2482	2334



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.6	1.7
10°-20°	364.9	4.8
20°-30°	529.2	6.9
30°-40°	603.1	7.9
40°-50°	587.8	7.7
50°-60°	494.8	6.5
60°-70°	346.9	4.5
70°-80°	178.3	2.3
80°-90°	48.3	0.6
90°-100°	421.9	5.5
100°-110°	906.9	11.9
110°-120°	851.1	11.1
120°-130°	689.8	9.0
130°-140°	553.5	7.2
140°-150°	417.7	5.5
150°-160°	294.0	3.8
160°-170°	173.3	2.3
170°-180°	56.4	0.7
0°-30°	1024.6	13.4
0°-40°	1627.7	21.3
0°-60°	2710.4	35.4
0°-90°	3283.8	42.9
90°-120°	2179.9	28.5
90°-150°	3840.9	50.2
90°-180°	4365.0	57.1
0°-180°	7648.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1389	1389	1389	1389	1389	
5°	1386	1382	1371	1381	1379	131
15°	1318	1311	1290	1289	1280	371
25°	1196	1179	1141	1128	1116	550
35°	1030	1004	958	928	912	645
45°	843	811	755	715	697	650
55°	640	605	547	502	484	572
65°	433	396	342	301	284	429
75°	231	199	155	133	125	244
85°	58	40	34	32	32	65
90°	1	11	19	25	27	5
95°	39	114	1040	472	276	41
105°	133	185	851	1675	1555	140
115°	237	286	683	1472	1732	233
125°	328	385	655	1171	1365	291
135°	385	463	650	982	1134	299
145°	448	513	652	813	894	281
155°	512	550	636	719	750	236
165°	559	574	610	647	657	157
175°	581	581	586	593	590	55
180°	582	582	582	582	582	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1388.7	1388.7	1388.7	1388.7	1388.7	1388.7	1388.7	1388.7	1388.7	1388.7	1388.7
2.5°	1391.1	1390.6	1390.0	1389.5	1388.9	1387.7	1385.8	1383.9	1382.1	1380.2	1382.1
5°	1386.5	1385.6	1384.6	1383.7	1382.8	1381.1	1378.5	1375.9	1373.3	1370.8	1373.1
7.5°	1372.9	1372.0	1371.1	1370.2	1369.4	1367.4	1364.3	1361.2	1358.2	1355.0	1356.7
10°	1360.3	1359.6	1358.9	1358.2	1357.5	1355.5	1352.3	1349.0	1345.7	1342.5	1343.1
12.5°	1346.0	1345.1	1344.2	1343.4	1342.5	1339.9	1335.4	1331.1	1326.8	1322.3	1322.8
15°	1318.4	1317.0	1315.6	1314.1	1312.7	1309.6	1304.7	1299.8	1294.9	1290.0	1289.8
17.5°	1287.1	1285.0	1282.8	1280.7	1278.5	1274.3	1268.2	1262.0	1255.9	1249.7	1248.6
20°	1262.7	1260.4	1258.1	1255.8	1253.4	1248.5	1241.1	1233.7	1226.2	1218.7	1217.6
22.5°	1235.9	1233.6	1231.2	1228.9	1226.6	1221.5	1213.7	1205.9	1198.0	1190.2	1187.9
25°	1195.7	1192.1	1188.6	1185.2	1181.6	1175.6	1167.0	1158.3	1149.7	1141.1	1138.1
27.5°	1149.5	1145.3	1141.0	1136.8	1132.6	1125.8	1116.6	1107.3	1098.1	1088.8	1084.6
30°	1115.9	1111.5	1107.1	1102.7	1098.2	1091.1	1081.4	1071.6	1061.8	1052.0	1046.6
32.5°	1083.2	1078.0	1072.9	1067.7	1062.5	1054.9	1045.0	1035.0	1025.0	1015.0	1009.2
35°	1030.0	1024.3	1018.8	1013.1	1007.5	999.5	989.1	978.6	968.1	957.6	950.8
37.5°	977.7	970.9	964.1	957.3	950.5	941.7	930.9	920.0	909.2	898.4	890.3
40°	940.8	933.8	926.8	919.8	912.8	903.7	892.5	881.3	870.2	859.0	850.1
42.5°	902.2	895.0	887.9	880.6	873.4	864.1	852.5	841.0	829.4	817.9	809.4
45°	843.2	836.5	829.7	822.9	816.2	806.4	793.6	780.8	768.0	755.2	745.8
47.5°	782.2	775.1	767.9	760.8	753.7	743.7	730.7	717.8	704.9	692.0	682.4
50°	743.6	735.9	728.2	720.5	712.9	702.4	689.0	675.8	662.5	649.2	639.4
52.5°	701.7	693.8	685.9	678.0	670.1	659.9	647.4	634.9	622.3	609.8	599.3
55°	639.7	632.3	624.9	617.4	610.0	599.7	586.6	573.6	560.6	547.4	536.9
57.5°	577.2	569.3	561.3	553.3	545.4	535.1	522.5	509.9	497.4	484.7	474.5
60°	536.9	528.9	520.7	512.5	504.3	494.0	481.4	468.8	456.3	443.6	433.4
62.5°	494.2	486.5	478.7	470.8	463.0	452.8	440.0	427.3	414.4	401.7	392.2
65°	433.1	425.3	417.3	409.4	401.4	391.3	379.0	366.6	354.3	341.9	332.5
67.5°	372.5	364.6	356.7	348.8	340.8	330.9	319.1	307.3	295.5	283.6	275.1
70°	331.4	323.5	315.6	307.6	299.7	289.9	278.3	266.6	255.0	243.3	236.1
72.5°	291.1	283.4	275.7	267.9	260.2	250.9	239.9	229.0	218.1	207.2	200.6
75°	230.8	223.8	216.7	209.7	202.8	194.4	184.6	174.8	165.0	155.2	150.1
77.5°	170.8	165.1	159.6	154.0	148.3	141.7	133.8	126.0	118.2	110.4	106.7
80°	136.3	130.8	125.1	119.6	114.0	108.0	101.4	94.8	88.4	81.8	79.7
82.5°	102.8	97.8	92.7	87.7	82.6	77.9	73.4	69.0	64.4	60.0	59.0
85°	57.7	53.5	49.3	45.1	40.9	38.2	37.1	35.9	34.7	33.5	33.3
87.5°	19.5	18.5	17.7	16.8	16.0	15.7	15.8	16.1	16.1	16.4	16.6
90°	1.2	2.3	4.6	7.1	9.4	11.7	12.9	15.2	16.5	18.8	20.0
92.5°	14.3	17.4	27.3	41.8	62.0	96.2	160.3	267.8	384.5	378.3	306.3
95°	38.7	39.9	49.3	62.2	88.0	140.8	266.4	524.5	848.4	1039.7	1017.3
97.5°	64.3	65.7	72.3	85.2	108.5	146.4	229.5	418.7	757.6	1110.2	1287.3
100°	82.1	84.5	89.2	102.1	124.4	159.6	227.6	380.2	675.9	1059.6	1352.9
102.5°	101.9	103.3	107.0	120.9	141.3	175.5	236.1	364.3	613.9	970.4	1313.5
105°	132.6	132.6	138.5	150.2	169.0	201.9	253.5	357.9	553.8	850.7	1187.5
107.5°	162.6	165.0	170.6	180.3	199.8	229.2	279.2	368.7	528.5	768.3	1058.9
110°	184.2	186.6	191.3	201.9	219.4	249.9	298.0	379.0	521.0	729.8	985.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	205.8	208.1	211.9	222.5	240.0	269.6	315.9	392.1	521.0	707.3	931.2
115°	237.0	239.3	242.9	253.5	271.0	300.4	343.9	411.8	524.5	683.0	871.8
117.5°	265.2	268.7	272.5	283.1	303.0	331.3	372.4	434.4	532.3	671.0	836.4
120°	284.0	287.5	292.2	302.8	322.7	352.0	393.1	449.4	539.8	665.3	816.7
122.5°	303.7	306.3	310.0	320.5	342.4	371.7	412.8	466.4	546.3	660.7	799.8
125°	328.5	330.9	336.8	347.3	369.6	400.1	438.9	489.3	557.3	654.8	776.8
127.5°	348.0	351.5	359.1	372.4	396.2	426.7	463.9	510.5	569.8	652.0	755.7
130°	360.2	363.8	373.1	388.4	413.0	443.5	479.9	524.5	577.3	650.1	741.6
132.5°	369.6	374.1	385.4	402.5	428.1	458.6	494.9	536.7	585.7	650.1	730.3
135°	384.9	389.6	403.6	422.4	447.1	478.8	515.1	553.8	597.2	650.1	717.0
137.5°	404.1	407.7	420.8	439.6	463.7	496.3	529.5	566.5	607.8	651.5	705.0
140°	415.4	418.9	433.0	451.8	474.0	505.7	539.8	575.0	612.5	652.4	699.3
142.5°	428.5	431.1	444.2	463.0	484.4	514.2	546.3	579.7	615.3	653.4	694.7
145°	448.3	450.6	462.3	478.8	499.9	526.8	557.3	586.7	618.4	652.4	687.6
147.5°	468.9	470.3	480.4	495.6	513.9	537.7	564.4	591.0	619.6	649.3	680.3
150°	481.1	483.4	491.7	507.0	523.3	543.3	569.1	593.8	619.6	646.5	674.7
152.5°	494.2	495.6	502.9	516.3	531.8	549.9	573.8	595.6	618.6	642.8	668.1
155°	511.6	511.6	518.7	530.4	542.1	558.6	578.5	597.2	616.0	636.0	657.1
157.5°	527.1	526.8	532.5	542.6	552.9	565.3	582.5	598.4	613.0	628.9	646.8
160°	537.5	536.2	541.0	549.2	558.6	569.1	584.4	598.4	610.2	624.3	638.3
162.5°	545.8	544.7	549.4	556.6	564.2	572.9	586.2	597.5	607.3	618.6	630.9
165°	558.6	556.2	559.8	565.6	570.3	577.3	586.7	596.1	603.1	610.2	619.6
167.5°	567.0	565.8	567.9	571.2	574.5	579.0	586.7	593.3	596.5	602.0	608.5
170°	572.6	571.5	572.6	575.0	577.3	580.9	586.7	591.4	593.8	597.2	602.0
172.5°	576.4	574.3	575.4	577.7	579.2	580.9	585.7	589.6	590.0	591.7	595.4
175°	580.9	578.5	579.7	580.9	580.9	580.9	584.4	586.7	585.5	585.5	586.7
177.5°	583.0	581.1	581.1	582.0	581.1	581.1	583.0	583.9	582.0	582.0	583.0
180°	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1388.7	1388.7	1388.7	1388.7	1388.7	1388.7	1388.7	1388.7
2.5°	1383.9	1385.8	1387.7	1388.6	1388.4	1388.2	1388.0	1387.8
5°	1375.4	1377.8	1380.1	1381.1	1380.6	1380.1	1379.7	1379.2
7.5°	1358.4	1360.0	1361.6	1362.1	1361.6	1361.1	1360.6	1360.1
10°	1343.8	1344.5	1345.2	1345.2	1344.5	1343.8	1343.1	1342.5
12.5°	1323.3	1323.8	1324.3	1324.1	1323.0	1321.9	1320.9	1319.8
15°	1289.6	1289.3	1289.1	1288.0	1285.9	1283.7	1281.6	1279.5
17.5°	1247.4	1246.3	1245.1	1243.6	1241.9	1240.2	1238.5	1236.8
20°	1216.4	1215.2	1214.1	1212.4	1210.3	1208.2	1206.1	1204.1
22.5°	1185.6	1183.4	1181.0	1179.0	1177.3	1175.6	1173.9	1172.2
25°	1135.1	1132.1	1129.0	1126.2	1123.6	1121.1	1118.5	1115.9
27.5°	1080.4	1076.1	1071.9	1068.5	1066.1	1063.6	1061.2	1058.6
30°	1041.3	1035.9	1030.5	1026.8	1024.7	1022.6	1020.5	1018.3
32.5°	1003.2	997.2	991.4	987.0	984.4	981.8	979.1	976.4
35°	944.0	937.3	930.5	925.5	922.2	919.0	915.7	912.4
37.5°	882.2	874.0	866.0	860.3	857.2	853.9	850.8	847.7
40°	841.2	832.4	823.5	817.7	815.0	812.1	809.3	806.6
42.5°	800.9	792.4	784.0	777.6	773.6	769.4	765.3	761.2
45°	736.5	727.2	717.8	711.4	707.9	704.5	700.9	697.4
47.5°	672.8	663.2	653.6	646.8	643.0	639.1	635.2	631.4
50°	629.7	619.9	610.1	603.4	600.0	596.4	592.9	589.5
52.5°	588.8	578.1	567.6	560.6	557.1	553.6	550.2	546.6
55°	526.5	516.0	505.5	498.4	494.7	491.0	487.3	483.5
57.5°	464.2	454.0	443.7	437.0	433.6	430.3	427.1	423.7
60°	423.1	412.8	402.6	395.8	392.2	388.8	385.3	381.7
62.5°	382.6	373.1	363.7	357.2	353.7	350.1	346.7	343.2
65°	323.3	314.0	304.6	298.2	294.7	291.2	287.7	284.2
67.5°	266.5	258.0	249.4	243.8	241.1	238.2	235.4	232.7
70°	228.8	221.7	214.4	209.4	206.6	203.8	201.1	198.2
72.5°	193.9	187.2	180.6	176.3	174.4	172.6	170.8	168.8
75°	145.0	139.9	134.7	131.4	129.7	128.1	126.4	124.8
77.5°	103.1	99.6	95.9	93.6	92.4	91.2	90.0	88.8
80°	77.7	75.5	73.4	72.1	71.7	71.2	70.7	70.3
82.5°	58.1	57.1	56.0	55.4	55.1	54.9	54.6	54.3
85°	33.1	32.8	32.6	32.4	32.1	31.9	31.7	31.5
87.5°	16.8	17.1	17.3	17.7	17.5	17.3	17.4	17.2
90°	21.1	22.3	23.4	25.9	25.9	25.9	27.0	27.0
92.5°	207.9	150.9	113.6	96.2	81.2	78.4	76.7	74.8
95°	843.6	665.3	521.0	422.4	339.1	303.9	294.6	275.8
97.5°	1256.5	1131.5	990.9	853.7	781.2	715.6	681.6	666.5
100°	1443.3	1385.8	1265.0	1142.9	1062.0	977.4	934.0	915.2
102.5°	1506.2	1541.7	1483.7	1401.1	1314.4	1254.4	1207.2	1193.2
105°	1469.2	1629.9	1681.5	1668.6	1631.0	1592.4	1568.8	1554.8
107.5°	1336.8	1551.3	1683.8	1745.1	1764.1	1763.9	1756.2	1746.8
110°	1239.1	1462.1	1627.5	1727.3	1780.1	1802.4	1810.6	1810.6



TEST NUMBER: P333579-840

CATALOG NUMBER: S125RDIP-S850D1205U840-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1162.2	1373.8	1541.2	1658.7	1736.0	1774.2	1794.6	1803.1
115°	1065.5	1247.4	1408.1	1536.0	1627.5	1683.8	1716.7	1731.9
117.5°	1003.0	1159.8	1298.3	1415.6	1507.1	1565.4	1598.0	1607.3
120°	969.3	1110.0	1239.1	1342.4	1429.3	1485.5	1517.2	1526.6
122.5°	943.9	1074.4	1189.4	1286.1	1363.5	1415.1	1446.8	1455.3
125°	907.1	1026.7	1128.8	1213.4	1279.0	1327.2	1352.9	1364.7
127.5°	869.5	981.2	1076.5	1155.6	1215.2	1257.7	1282.1	1287.3
130°	846.1	949.3	1040.9	1117.1	1175.8	1214.5	1238.0	1245.0
132.5°	822.5	919.3	1002.3	1075.8	1134.5	1173.2	1194.8	1202.7
135°	792.0	873.0	948.2	1015.0	1066.6	1105.4	1126.5	1133.6
137.5°	766.3	831.7	894.1	951.0	997.1	1032.4	1051.9	1059.6
140°	752.1	807.3	861.3	910.6	954.0	984.5	1002.1	1007.9
142.5°	739.9	786.7	833.1	875.9	912.7	938.5	955.1	960.1
145°	724.0	760.3	796.8	828.4	856.6	876.6	889.5	894.1
147.5°	709.0	738.5	766.5	790.4	812.7	828.7	836.2	838.3
150°	700.5	726.4	748.6	769.7	787.4	801.4	806.2	807.3
152.5°	691.2	714.2	734.6	751.0	765.8	777.0	781.7	782.9
155°	677.0	695.8	712.3	725.2	736.9	745.1	748.6	749.8
157.5°	663.0	678.4	691.2	701.3	710.3	717.2	720.4	720.2
160°	653.6	665.3	677.0	685.3	693.5	699.3	701.8	700.5
162.5°	643.3	654.1	663.9	671.2	677.5	682.5	683.0	682.7
165°	628.9	637.1	644.2	650.1	654.8	657.1	657.1	657.1
167.5°	615.3	620.8	626.1	630.4	632.7	634.8	633.9	633.7
170°	607.8	611.4	614.9	617.2	619.6	620.8	620.8	619.6
172.5°	599.4	602.9	605.5	606.9	607.3	609.5	607.6	606.4
175°	590.3	590.3	592.6	592.6	592.6	593.8	591.4	590.3
177.5°	583.9	584.8	584.8	584.8	583.9	584.8	582.0	582.0
180°	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0

(END OF REPORT)