

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

Luminaire Tested: **S125RDIP-S850D1205U835-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333579
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-S850D1205U835-4F0-1E-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: 7573.7 lumens
Efficiency: N/A
Efficacy: 133.1 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

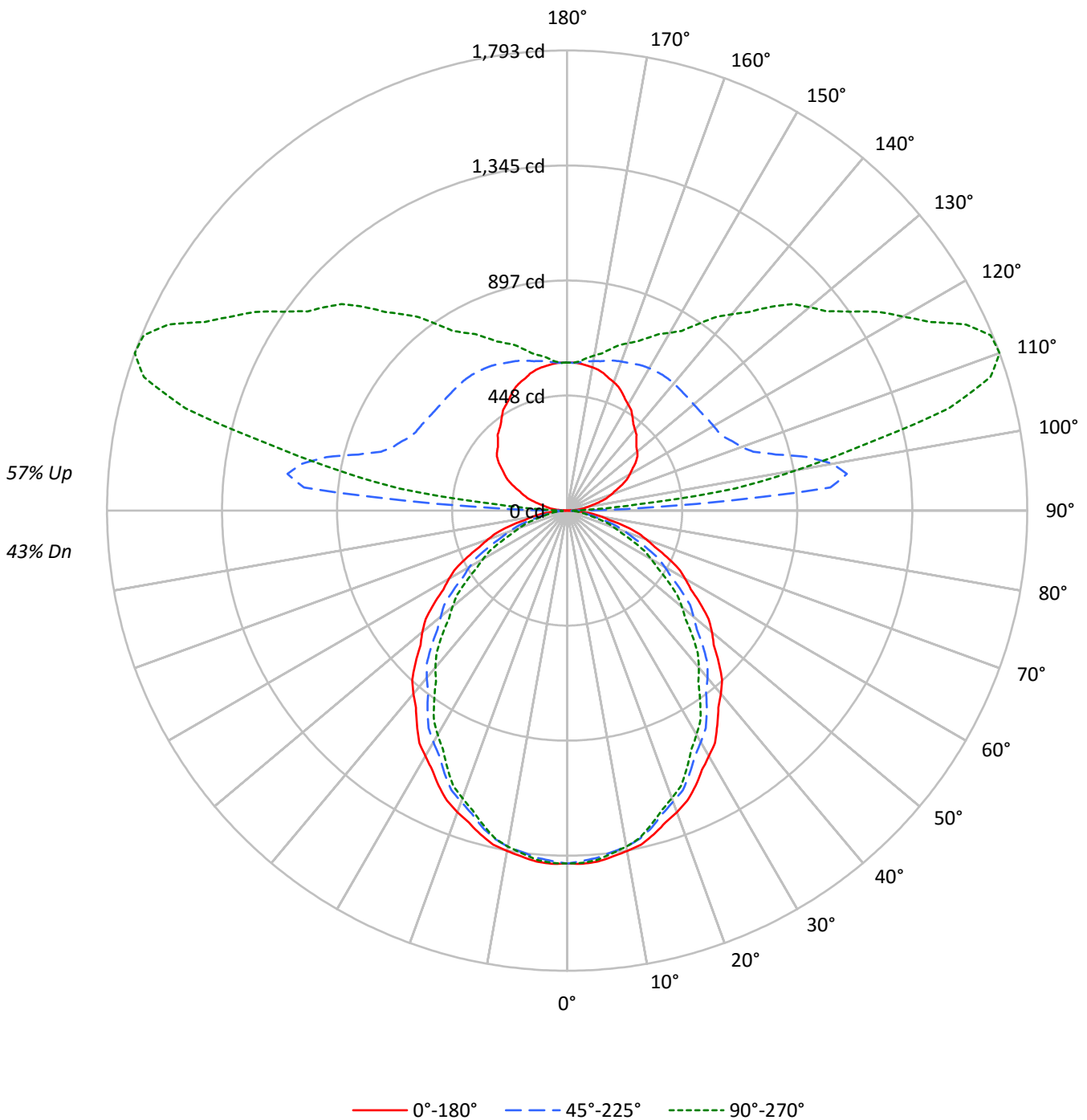
Input Watts (W): 56.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20										
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	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°	8881	8881	8881
5°	8901	8800	8854
10°	8834	8718	8718
15°	8729	8541	8471
20°	8594	8294	8194
25°	8437	8052	7874
30°	8240	7768	7520
35°	8041	7476	7123
40°	7854	7171	6734
45°	7626	6830	6308
50°	7398	6459	5865
55°	7133	6104	5391
60°	6868	5674	4883
65°	6554	5174	4300
70°	6197	4549	3707
75°	5702	3835	3084
80°	5021	3013	2589
85°	4231	2460	2312



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.3	1.7
10°-20°	361.3	4.8
20°-30°	524.0	6.9
30°-40°	597.2	7.9
40°-50°	582.1	7.7
50°-60°	490.0	6.5
60°-70°	343.5	4.5
70°-80°	176.6	2.3
80°-90°	47.8	0.6
90°-100°	417.8	5.5
100°-110°	898.0	11.9
110°-120°	842.8	11.1
120°-130°	683.0	9.0
130°-140°	548.1	7.2
140°-150°	413.6	5.5
150°-160°	291.2	3.8
160°-170°	171.6	2.3
170°-180°	55.8	0.7
0°-30°	1014.6	13.4
0°-40°	1611.8	21.3
0°-60°	2683.9	35.4
0°-90°	3251.7	42.9
90°-120°	2158.6	28.5
90°-150°	3803.4	50.2
90°-180°	4322.0	57.1
0°-180°	7573.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1375	1375	1375	1375	1375	
5°	1373	1368	1357	1367	1366	130
15°	1306	1298	1277	1276	1267	368
25°	1184	1167	1130	1117	1105	545
35°	1020	994	948	919	904	638
45°	835	803	748	708	691	644
55°	634	599	542	497	479	566
65°	429	392	339	298	281	425
75°	228	197	154	132	124	242
85°	57	39	33	32	31	64
90°	1	10	19	24	27	5
95°	38	113	1030	467	273	41
105°	131	184	842	1659	1540	138
115°	235	283	676	1458	1715	231
125°	325	381	648	1160	1351	289
135°	381	458	644	972	1122	296
145°	444	508	646	805	885	278
155°	507	545	630	712	742	233
165°	553	568	604	641	651	156
175°	575	575	580	587	584	55
180°	576	576	576	576	576	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1
2.5°	1377.5	1377.0	1376.4	1375.9	1375.3	1374.1	1372.3	1370.4	1368.6	1366.7	1368.6
5°	1373.0	1372.1	1371.1	1370.2	1369.3	1367.6	1365.0	1362.5	1359.9	1357.4	1359.7
7.5°	1359.5	1358.6	1357.7	1356.8	1356.0	1354.0	1351.0	1347.9	1344.9	1341.8	1343.4
10°	1347.0	1346.3	1345.6	1344.9	1344.2	1342.3	1339.1	1335.8	1332.6	1329.4	1330.0
12.5°	1332.9	1332.0	1331.1	1330.3	1329.4	1326.8	1322.4	1318.1	1313.8	1309.4	1309.9
15°	1305.5	1304.1	1302.7	1301.3	1299.9	1296.8	1292.0	1287.1	1282.3	1277.4	1277.2
17.5°	1274.5	1272.4	1270.3	1268.2	1266.0	1261.9	1255.8	1249.7	1243.6	1237.5	1236.4
20°	1250.4	1248.1	1245.8	1243.5	1241.2	1236.3	1229.0	1221.6	1214.2	1206.8	1205.7
22.5°	1223.8	1221.5	1219.2	1216.9	1214.6	1209.6	1201.8	1194.1	1186.3	1178.6	1176.3
25°	1184.0	1180.5	1177.0	1173.6	1170.1	1164.1	1155.6	1147.0	1138.5	1130.0	1127.0
27.5°	1138.3	1134.1	1129.9	1125.7	1121.5	1114.8	1105.7	1096.5	1087.4	1078.2	1074.0
30°	1105.0	1100.6	1096.3	1091.9	1087.5	1080.4	1070.8	1061.1	1051.4	1041.7	1036.4
32.5°	1072.6	1067.5	1062.4	1057.3	1052.1	1044.6	1034.8	1024.9	1015.0	1005.1	999.3
35°	1019.9	1014.3	1008.8	1003.2	997.7	989.7	979.4	969.0	958.6	948.2	941.5
37.5°	968.1	961.4	954.7	947.9	941.2	932.5	921.8	911.0	900.3	889.6	881.6
40°	931.6	924.7	917.7	910.8	903.9	894.9	883.8	872.7	861.7	850.6	841.8
42.5°	893.4	886.3	879.2	872.0	864.9	855.7	844.2	832.8	821.3	809.9	801.5
45°	835.0	828.3	821.6	814.9	808.2	798.5	785.8	773.2	760.5	747.8	738.5
47.5°	774.6	767.5	760.4	753.4	746.3	736.4	723.6	710.8	698.0	685.2	675.7
50°	736.3	728.7	721.1	713.5	705.9	695.5	682.3	669.2	656.0	642.9	633.2
52.5°	694.8	687.0	679.2	671.4	663.6	653.5	641.1	628.7	616.2	603.8	593.4
55°	633.5	626.1	618.8	611.4	604.0	593.8	580.9	568.0	555.1	542.1	531.7
57.5°	571.6	563.7	555.8	547.9	540.1	529.9	517.4	504.9	492.5	480.0	469.9
60°	531.7	523.7	515.6	507.5	499.4	489.2	476.7	464.2	451.8	439.3	429.2
62.5°	489.4	481.7	474.0	466.2	458.5	448.4	435.7	423.1	410.4	397.8	388.4
65°	428.9	421.1	413.2	405.4	397.5	387.5	375.3	363.0	350.8	338.6	329.3
67.5°	368.9	361.0	353.2	345.4	337.5	327.7	316.0	304.3	292.6	280.8	272.4
70°	328.2	320.3	312.5	304.6	296.8	287.1	275.6	264.0	252.5	240.9	233.8
72.5°	288.3	280.6	273.0	265.3	257.7	248.4	237.6	226.8	216.0	205.2	198.6
75°	228.5	221.6	214.6	207.7	200.8	192.5	182.8	173.1	163.4	153.7	148.6
77.5°	169.1	163.5	158.0	152.5	146.9	140.3	132.5	124.8	117.0	109.3	105.7
80°	135.0	129.5	123.9	118.4	112.9	106.9	100.4	93.9	87.5	81.0	78.9
82.5°	101.8	96.8	91.8	86.8	81.8	77.1	72.7	68.3	63.8	59.4	58.4
85°	57.1	53.0	48.8	44.7	40.5	37.8	36.7	35.5	34.4	33.2	33.0
87.5°	19.3	18.3	17.5	16.6	15.8	15.5	15.6	15.9	15.9	16.2	16.4
90°	1.2	2.3	4.6	7.0	9.3	11.6	12.8	15.1	16.3	18.6	19.8
92.5°	14.2	17.2	27.0	41.4	61.4	95.3	158.7	265.2	380.7	374.6	303.3
95°	38.3	39.5	48.8	61.6	87.1	139.4	263.8	519.4	840.1	1029.5	1007.4
97.5°	63.7	65.1	71.6	84.4	107.4	145.0	227.3	414.6	750.2	1099.4	1274.7
100°	81.3	83.7	88.3	101.1	123.2	158.0	225.4	376.5	669.3	1049.2	1339.7
102.5°	100.9	102.3	106.0	119.7	139.9	173.8	233.8	360.7	607.9	960.9	1300.7
105°	131.3	131.3	137.1	148.7	167.3	199.9	251.0	354.4	548.4	842.4	1175.9
107.5°	161.0	163.4	168.9	178.5	197.8	227.0	276.5	365.1	523.3	760.8	1048.6
110°	182.4	184.8	189.4	199.9	217.3	247.5	295.1	375.3	515.9	722.7	976.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	203.8	206.1	209.8	220.3	237.7	267.0	312.8	388.3	515.9	700.4	922.1
115°	234.7	237.0	240.5	251.0	268.4	297.5	340.5	407.8	519.4	676.3	863.3
117.5°	262.6	266.1	269.8	280.3	300.0	328.1	368.8	430.2	527.1	664.4	828.2
120°	281.2	284.7	289.3	299.8	319.5	348.6	389.3	445.0	534.5	658.8	808.7
122.5°	300.7	303.3	307.0	317.4	339.1	368.1	408.8	461.8	541.0	654.2	792.0
125°	325.3	327.7	333.5	343.9	366.0	396.2	434.6	484.5	551.9	648.4	769.2
127.5°	344.6	348.1	355.6	368.8	392.3	422.5	459.4	505.5	564.2	645.6	748.3
130°	356.7	360.2	369.5	384.6	409.0	439.2	475.2	519.4	571.7	643.7	734.4
132.5°	366.0	370.4	381.6	398.6	423.9	454.1	490.1	531.5	580.0	643.7	723.2
135°	381.1	385.8	399.7	418.3	442.7	474.1	510.1	548.4	591.4	643.7	710.0
137.5°	400.2	403.7	416.7	435.3	459.2	491.5	524.3	561.0	601.9	645.1	698.1
140°	411.3	414.8	428.8	447.4	469.4	500.8	534.5	569.4	606.5	646.0	692.5
142.5°	424.3	426.9	439.9	458.5	479.7	509.2	541.0	574.0	609.3	647.0	687.9
145°	443.9	446.2	457.8	474.1	495.0	521.7	551.9	581.0	612.4	646.0	680.9
147.5°	464.3	465.7	475.7	490.8	508.9	532.4	558.9	585.2	613.5	643.0	673.7
150°	476.4	478.7	486.9	502.0	518.2	538.0	563.5	588.0	613.5	640.2	668.1
152.5°	489.4	490.8	498.0	511.3	526.6	544.5	568.2	589.8	612.6	636.5	661.6
155°	506.6	506.6	513.6	525.2	536.8	553.1	572.8	591.4	610.0	629.8	650.7
157.5°	522.0	521.7	527.3	537.3	547.5	559.8	576.8	592.6	607.0	622.8	640.5
160°	532.2	531.0	535.7	543.8	553.1	563.5	578.7	592.6	604.2	618.2	632.1
162.5°	540.5	539.4	544.0	551.2	558.7	567.3	580.5	591.7	601.4	612.6	624.7
165°	553.1	550.8	554.3	560.1	564.7	571.7	581.0	590.3	597.2	604.2	613.5
167.5°	561.5	560.3	562.4	565.6	568.9	573.3	581.0	587.5	590.7	596.1	602.6
170°	567.0	565.9	567.0	569.4	571.7	575.2	581.0	585.6	588.0	591.4	596.1
172.5°	570.8	568.7	569.8	572.1	573.5	575.2	580.0	583.8	584.2	585.9	589.6
175°	575.2	572.8	574.0	575.2	575.2	575.2	578.7	581.0	579.8	579.8	581.0
177.5°	577.3	575.4	575.4	576.3	575.4	575.4	577.3	578.2	576.3	576.3	577.3
180°	576.3	576.3	576.3	576.3	576.3	576.3	576.3	576.3	576.3	576.3	576.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1
2.5°	1370.4	1372.3	1374.1	1375.0	1374.8	1374.6	1374.4	1374.2
5°	1362.0	1364.3	1366.6	1367.6	1367.1	1366.6	1366.2	1365.7
7.5°	1345.1	1346.7	1348.3	1348.8	1348.3	1347.8	1347.3	1346.8
10°	1330.7	1331.4	1332.1	1332.1	1331.4	1330.7	1330.0	1329.4
12.5°	1310.4	1310.9	1311.4	1311.2	1310.1	1309.0	1308.0	1306.9
15°	1277.0	1276.7	1276.5	1275.4	1273.3	1271.2	1269.1	1267.0
17.5°	1235.2	1234.1	1232.9	1231.5	1229.8	1228.1	1226.4	1224.7
20°	1204.5	1203.3	1202.2	1200.6	1198.5	1196.4	1194.3	1192.3
22.5°	1174.0	1171.8	1169.5	1167.5	1165.8	1164.1	1162.4	1160.7
25°	1124.0	1121.0	1118.0	1115.2	1112.6	1110.1	1107.6	1105.0
27.5°	1069.8	1065.6	1061.4	1058.1	1055.7	1053.2	1050.8	1048.3
30°	1031.1	1025.8	1020.4	1016.8	1014.7	1012.6	1010.5	1008.4
32.5°	993.4	987.5	981.7	977.4	974.8	972.2	969.5	966.9
35°	934.8	928.1	921.4	916.5	913.2	910.0	906.8	903.5
37.5°	873.6	865.5	857.5	851.9	848.8	845.6	842.5	839.4
40°	833.0	824.3	815.5	809.7	807.0	804.2	801.4	798.7
42.5°	793.1	784.7	776.3	770.0	766.0	761.9	757.8	753.8
45°	729.3	720.1	710.8	704.5	701.0	697.6	694.1	690.6
47.5°	666.2	656.7	647.2	640.5	636.7	632.9	629.0	625.2
50°	623.5	613.8	604.1	597.5	594.1	590.6	587.1	583.7
52.5°	583.0	572.5	562.1	555.1	551.7	548.2	544.8	541.3
55°	521.4	511.0	500.6	493.5	489.9	486.2	482.5	478.8
57.5°	459.7	449.6	439.4	432.7	429.4	426.1	422.9	419.6
60°	419.0	408.8	398.7	391.9	388.4	385.0	381.5	378.0
62.5°	378.9	369.5	360.1	353.7	350.2	346.7	343.3	339.8
65°	320.1	310.9	301.6	295.3	291.8	288.4	284.9	281.4
67.5°	263.9	255.5	247.0	241.4	238.7	235.9	233.1	230.4
70°	226.6	219.5	212.3	207.4	204.6	201.8	199.1	196.3
72.5°	192.0	185.4	178.8	174.6	172.7	170.9	169.1	167.2
75°	143.6	138.5	133.4	130.1	128.4	126.8	125.2	123.6
77.5°	102.1	98.6	95.0	92.7	91.5	90.3	89.1	87.9
80°	76.9	74.8	72.7	71.4	71.0	70.5	70.0	69.6
82.5°	57.5	56.5	55.5	54.9	54.6	54.4	54.1	53.8
85°	32.8	32.5	32.3	32.1	31.8	31.6	31.4	31.2
87.5°	16.6	16.9	17.1	17.5	17.3	17.1	17.2	17.0
90°	20.9	22.1	23.2	25.6	25.6	25.6	26.7	26.7
92.5°	205.9	149.4	112.5	95.3	80.4	77.6	76.0	74.1
95°	835.4	658.8	515.9	418.3	335.8	300.9	291.7	273.1
97.5°	1244.2	1120.4	981.2	845.4	773.6	708.6	674.9	660.0
100°	1429.2	1372.3	1252.6	1131.7	1051.6	967.9	924.9	906.3
102.5°	1491.5	1526.6	1469.2	1387.4	1301.6	1242.1	1195.4	1181.5
105°	1454.8	1614.0	1665.1	1652.3	1615.1	1576.8	1553.5	1539.6
107.5°	1323.7	1536.1	1667.4	1728.1	1746.9	1746.7	1739.0	1729.7
110°	1227.0	1447.8	1611.6	1710.4	1762.7	1784.8	1792.9	1792.9



TEST NUMBER: P333579

CATALOG NUMBER: S125RDIP-S850D1205U835-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1150.8	1360.4	1526.1	1642.5	1719.0	1756.9	1777.1	1785.5
115°	1055.1	1235.2	1394.3	1521.0	1611.6	1667.4	1699.9	1715.0
117.5°	993.2	1148.5	1285.6	1401.8	1492.4	1550.1	1582.4	1591.6
120°	959.8	1099.2	1227.0	1329.3	1415.3	1471.0	1502.4	1511.7
122.5°	934.7	1063.9	1177.8	1273.5	1350.2	1401.3	1432.7	1441.1
125°	898.2	1016.7	1117.8	1201.5	1266.5	1314.2	1339.7	1351.4
127.5°	861.0	971.6	1066.0	1144.3	1203.3	1245.4	1269.6	1274.7
130°	837.8	940.0	1030.7	1106.2	1164.3	1202.6	1225.9	1232.8
132.5°	814.5	910.3	992.5	1065.3	1123.4	1161.7	1183.1	1191.0
135°	784.3	864.5	938.9	1005.1	1056.2	1094.6	1115.5	1122.5
137.5°	758.8	823.6	885.4	941.7	987.4	1022.3	1041.6	1049.2
140°	744.8	799.4	852.9	901.7	944.7	974.9	992.3	998.1
142.5°	732.7	779.0	825.0	867.3	903.8	929.3	945.8	950.7
145°	716.9	752.9	789.0	820.3	848.2	868.0	880.8	885.4
147.5°	702.1	731.3	759.0	782.7	804.8	820.6	828.0	830.1
150°	693.7	719.3	741.3	762.2	779.7	793.6	798.3	799.4
152.5°	684.4	707.2	727.4	743.7	758.3	769.4	774.1	775.3
155°	670.4	689.0	705.3	718.1	729.7	737.8	741.3	742.5
157.5°	656.5	671.8	684.4	694.4	703.4	710.2	713.4	713.2
160°	647.2	658.8	670.4	678.6	686.7	692.5	694.9	693.7
162.5°	637.0	647.7	657.4	664.6	670.9	675.8	676.3	676.0
165°	622.8	630.9	637.9	643.7	648.4	650.7	650.7	650.7
167.5°	609.3	614.7	620.0	624.2	626.5	628.6	627.7	627.5
170°	601.9	605.4	608.9	611.2	613.5	614.7	614.7	613.5
172.5°	593.5	597.0	599.6	601.0	601.4	603.5	601.7	600.5
175°	584.5	584.5	586.8	586.8	586.8	588.0	585.6	584.5
177.5°	578.2	579.1	579.1	579.1	578.2	579.1	576.3	576.3
180°	576.3	576.3	576.3	576.3	576.3	576.3	576.3	576.3

(END OF REPORT)