

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: P333554-840

Luminaire Tested: **S125RDIP-S850D365U840-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333554-840
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125RDIP-S850D365U840-4F0-1E-UDD-F1
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 365 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4561.4 lumens
Efficiency: N/A
Efficacy: 130.3 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

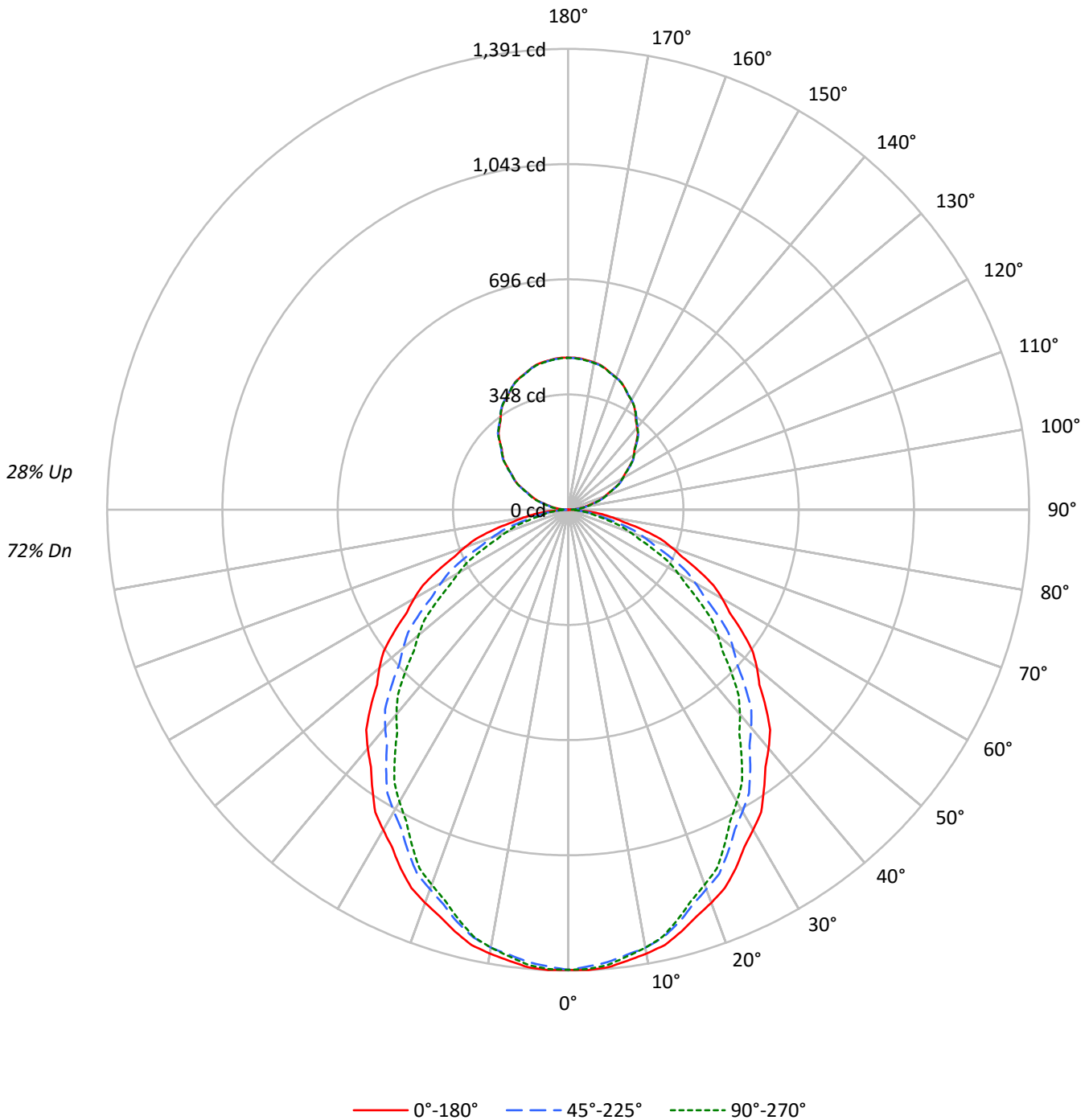
Input Watts (W): 35
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	112	112	112	112	106	106	106	106	96	96	96	85	85	85	76	76	76	76	76	76	76	76	76	72														
1	103	99	95	91	98	94	90	87	84	82	79	76	74	72	68	67	65	65	65	65	65	65	65	61														
2	94	87	80	75	89	82	77	72	74	70	66	67	64	61	60	58	55	55	55	55	55	55	55	52														
3	86	76	69	63	81	73	66	61	66	60	56	60	55	52	54	50	47	47	47	47	47	47	47	44														
4	79	68	60	54	75	65	57	52	59	53	48	53	48	45	48	44	41	41	41	41	41	41	41	38														
5	73	61	52	46	69	58	50	45	53	47	42	48	43	39	43	39	36	36	36	36	36	36	36	33														
6	67	55	46	40	63	52	45	39	48	41	37	44	38	34	40	35	32	32	32	32	32	32	32	29														
7	62	50	41	36	59	48	40	35	44	37	33	40	34	30	36	32	28	28	28	28	28	28	28	26														
8	58	45	37	32	55	43	36	31	40	34	29	36	31	27	33	29	26	26	26	26	26	26	26	23														
9	54	42	34	29	51	40	33	28	37	31	26	34	28	25	31	26	23	23	23	23	23	23	23	21														
10	51	38	31	26	48	37	30	25	34	28	24	31	26	22	29	24	21	21	21	21	21	21	21	19														

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	2.9
10°-20°	364.9	8.0
20°-30°	529.2	11.6
30°-40°	603.1	13.2
40°-50°	587.8	12.9
50°-60°	494.8	10.8
60°-70°	346.9	7.6
70°-80°	178.3	3.9
80°-90°	46.0	1.0
90°-100°	30.7	0.7
100°-110°	90.7	2.0
110°-120°	153.6	3.4
120°-130°	202.2	4.4
130°-140°	226.6	5.0
140°-150°	222.1	4.9
150°-160°	186.5	4.1
160°-170°	124.0	2.7
170°-180°	43.4	1.0
0°-30°	1024.6	22.5
0°-40°	1627.7	35.7
0°-60°	2710.4	59.4
0°-90°	3281.5	71.9
90°-120°	275.1	6.0
90°-150°	925.9	20.3
90°-180°	1280.0	28.1
0°-180°	4561.4	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°	0	3	6	7	9	4
95°	23	24	28	30	31	25
105°	81	83	85	87	89	87
115°	154	155	156	156	155	152
125°	224	227	227	226	226	201
135°	292	294	294	294	293	225
145°	354	355	356	356	355	221
155°	405	405	405	406	405	186
165°	440	439	440	441	439	124
175°	458	456	456	458	456	43
180°	459	459	459	459	459	



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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°	19.4	18.2	17.0	15.9	14.6	14.0	13.9	13.8	13.8	13.7	13.8
90°	0.4	1.0	1.6	2.2	2.9	3.5	4.0	4.6	5.2	5.8	6.1
92.5°	8.7	9.1	9.5	10.0	10.4	11.0	11.6	12.3	13.0	13.7	14.2
95°	23.2	23.3	23.5	23.6	23.8	24.3	25.1	25.9	26.7	27.5	28.1
97.5°	38.6	38.6	38.7	38.8	38.8	39.4	40.5	41.6	42.6	43.7	44.3
100°	50.0	50.0	50.0	50.0	50.0	50.5	51.5	52.5	53.6	54.6	55.3
102.5°	62.2	62.6	62.9	63.2	63.5	63.9	64.4	64.9	65.5	66.0	66.9
105°	81.4	81.8	82.2	82.6	83.0	83.4	83.9	84.3	84.8	85.3	85.7
107.5°	102.5	102.9	103.3	103.7	104.1	104.5	104.8	105.2	105.5	105.9	106.1
110°	117.0	117.4	117.9	118.3	118.7	119.0	119.2	119.5	119.7	120.0	120.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	131.9	132.1	132.3	132.5	132.7	133.0	133.3	133.6	133.9	134.2	134.3
115°	153.8	154.1	154.5	154.8	155.1	155.3	155.5	155.6	155.8	156.0	155.9
117.5°	175.8	175.9	176.1	176.2	176.4	176.5	176.7	176.8	176.9	177.1	177.1
120°	189.6	190.0	190.4	190.8	191.1	191.4	191.5	191.5	191.6	191.7	191.7
122.5°	204.4	204.5	204.7	204.8	204.9	205.1	205.3	205.5	205.7	205.9	205.9
125°	224.5	225.0	225.5	225.9	226.4	226.7	226.8	226.8	226.9	227.0	226.8
127.5°	245.9	246.2	246.5	246.7	247.0	247.2	247.3	247.4	247.5	247.5	247.5
130°	258.7	259.1	259.5	259.9	260.3	260.6	260.7	260.9	261.2	261.3	261.2
132.5°	271.7	272.3	273.0	273.6	274.2	274.6	274.5	274.5	274.5	274.4	274.3
135°	292.0	292.5	293.0	293.4	293.9	294.2	294.3	294.3	294.4	294.5	294.5
137.5°	311.1	311.5	312.0	312.5	313.0	313.3	313.5	313.6	313.8	314.0	314.1
140°	323.4	323.8	324.2	324.6	325.0	325.3	325.5	325.8	326.0	326.2	326.4
142.5°	335.7	336.0	336.3	336.7	337.0	337.3	337.6	337.9	338.2	338.5	338.6
145°	353.8	354.1	354.4	354.7	355.0	355.3	355.5	355.8	356.0	356.2	356.2
147.5°	370.4	370.6	370.7	370.9	371.1	371.3	371.5	371.7	371.8	372.0	372.2
150°	381.5	381.5	381.4	381.3	381.2	381.3	381.6	382.0	382.3	382.6	382.6
152.5°	390.7	390.8	390.9	391.0	391.1	391.2	391.4	391.5	391.6	391.7	391.9
155°	404.8	404.8	404.8	404.8	404.8	404.8	404.9	405.0	405.1	405.2	405.5
157.5°	417.3	417.2	417.0	416.8	416.7	416.6	416.7	416.8	416.8	416.9	417.2
160°	424.7	424.5	424.2	424.0	423.8	423.7	423.8	423.8	423.9	424.0	424.3
162.5°	431.3	431.1	431.0	430.8	430.6	430.5	430.5	430.6	430.6	430.6	431.0
165°	440.1	439.9	439.8	439.6	439.5	439.4	439.5	439.6	439.7	439.7	440.1
167.5°	447.5	447.2	446.9	446.6	446.3	446.1	446.1	446.1	446.1	446.1	446.6
170°	451.5	451.2	450.9	450.6	450.2	450.1	450.1	450.1	450.1	450.1	450.6
172.5°	454.3	454.0	453.7	453.4	453.1	452.9	452.9	452.9	452.9	452.9	453.4
175°	457.6	457.3	457.0	456.7	456.4	456.2	456.2	456.2	456.2	456.2	456.7
177.5°	459.2	459.0	458.7	458.5	458.2	458.1	458.0	458.0	457.9	457.8	458.2
180°	458.7	458.7	458.7	458.7	458.7	458.7	458.7	458.7	458.7	458.7	458.7



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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°	13.9	13.9	14.0	14.0	13.8	13.7	13.6	13.4
90°	6.5	6.9	7.3	7.6	7.9	8.1	8.3	8.6
92.5°	14.7	15.2	15.8	16.2	16.4	16.5	16.7	16.9
95°	28.6	29.2	29.7	30.1	30.2	30.4	30.5	30.7
97.5°	44.8	45.3	45.8	46.2	46.3	46.4	46.5	46.6
100°	56.0	56.8	57.5	57.9	58.1	58.3	58.4	58.6
102.5°	67.6	68.4	69.2	69.7	69.9	70.1	70.3	70.5
105°	86.2	86.7	87.3	87.6	87.8	88.1	88.3	88.6
107.5°	106.4	106.6	106.8	107.0	106.9	106.9	106.9	106.9
110°	120.4	120.7	120.9	121.0	120.9	120.8	120.7	120.7



TEST NUMBER: P333554-840

CATALOG NUMBER: S125RDIP-S850D365U840-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	134.4	134.5	134.6	134.6	134.5	134.3	134.2	134.1
115°	155.8	155.7	155.6	155.6	155.5	155.4	155.3	155.2
117.5°	177.2	177.3	177.3	177.2	176.9	176.6	176.3	175.9
120°	191.7	191.7	191.7	191.5	191.2	190.9	190.6	190.3
122.5°	205.8	205.7	205.7	205.5	205.3	205.0	204.8	204.5
125°	226.7	226.5	226.4	226.2	226.2	226.1	226.0	225.9
127.5°	247.4	247.3	247.2	247.1	247.0	246.8	246.6	246.5
130°	261.2	261.1	260.9	260.8	260.6	260.5	260.3	260.2
132.5°	274.3	274.2	274.1	274.0	273.7	273.5	273.3	273.1
135°	294.5	294.5	294.5	294.3	294.0	293.7	293.4	293.1
137.5°	314.2	314.3	314.4	314.2	313.8	313.4	313.0	312.6
140°	326.6	326.7	326.9	326.8	326.4	326.0	325.6	325.2
142.5°	338.7	338.8	338.9	338.7	338.3	337.9	337.6	337.2
145°	356.2	356.2	356.2	356.1	355.9	355.6	355.4	355.2
147.5°	372.4	372.6	372.8	372.6	372.1	371.5	371.0	370.5
150°	382.6	382.6	382.6	382.5	382.4	382.2	382.0	381.9
152.5°	392.1	392.3	392.5	392.4	392.2	391.9	391.6	391.3
155°	405.8	406.1	406.4	406.4	406.0	405.6	405.2	404.8
157.5°	417.5	417.9	418.2	418.1	417.6	417.0	416.5	416.0
160°	424.6	425.0	425.3	425.3	424.9	424.4	424.0	423.6
162.5°	431.3	431.7	432.1	432.1	431.6	431.1	430.7	430.2
165°	440.4	440.7	441.0	440.9	440.4	440.0	439.5	439.0
167.5°	447.1	447.5	448.0	448.0	447.5	447.0	446.5	446.1
170°	451.0	451.5	452.0	451.9	451.4	450.8	450.3	449.7
172.5°	453.9	454.3	454.8	454.8	454.3	453.8	453.3	452.8
175°	457.1	457.6	458.1	458.0	457.5	456.9	456.4	455.8
177.5°	458.6	459.0	459.3	459.3	458.9	458.4	458.0	457.5
180°	458.7	458.7	458.7	458.7	458.7	458.7	458.7	458.7

(END OF REPORT)