

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: P333554-940

Luminaire Tested: **S125RDIP-S850D365U940-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333554-940
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-S850D365U940-4F0-1E-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: 4027.7 lumens
Efficiency: N/A
Efficacy: 115.1 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: Semi-Direct

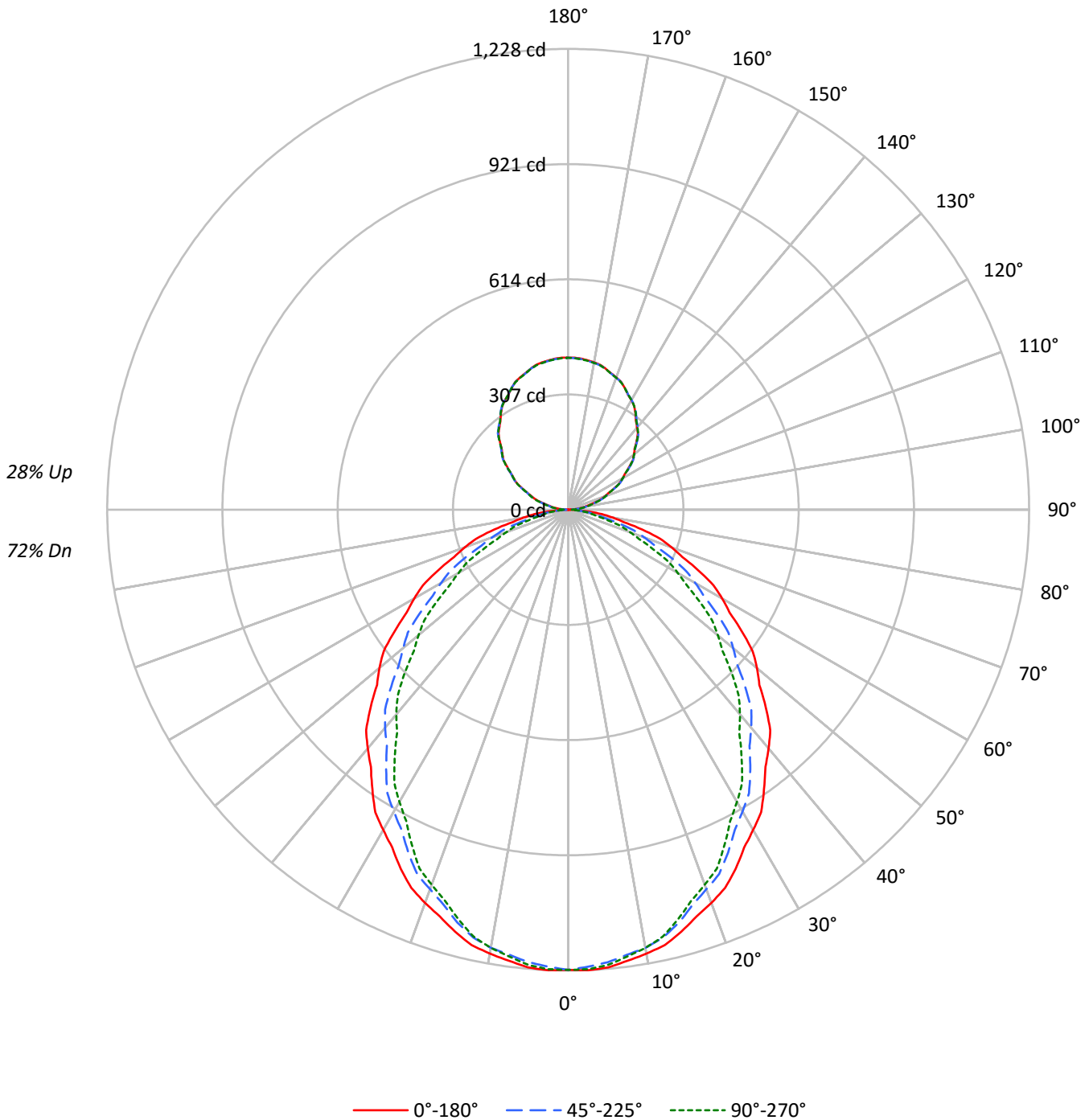
Input Watts (W): 35
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	41	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°	7919	7919	7919
5°	7937	7847	7895
10°	7877	7774	7774
15°	7783	7616	7554
20°	7663	7396	7307
25°	7524	7180	7021
30°	7348	6927	6706
35°	7171	6666	6352
40°	7003	6395	6004
45°	6801	6090	5624
50°	6597	5760	5230
55°	6361	5443	4808
60°	6124	5059	4354
65°	5845	4614	3834
70°	5527	4056	3305
75°	5085	3421	2750
80°	4478	2685	2310
85°	3772	2193	2060



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.3	2.9
10°-20°	322.2	8.0
20°-30°	467.2	11.6
30°-40°	532.5	13.2
40°-50°	519.1	12.9
50°-60°	436.9	10.8
60°-70°	306.3	7.6
70°-80°	157.4	3.9
80°-90°	40.6	1.0
90°-100°	27.1	0.7
100°-110°	80.1	2.0
110°-120°	135.7	3.4
120°-130°	178.6	4.4
130°-140°	200.1	5.0
140°-150°	196.1	4.9
150°-160°	164.7	4.1
160°-170°	109.5	2.7
170°-180°	38.3	1.0
0°-30°	904.7	22.5
0°-40°	1437.3	35.7
0°-60°	2393.2	59.4
0°-90°	2897.6	71.9
90°-120°	242.9	6.0
90°-150°	817.6	20.3
90°-180°	1130.0	28.1
0°-180°	4027.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1226	1226	1226	1226	1226	
5°	1224	1220	1210	1219	1218	116
15°	1164	1158	1139	1138	1130	328
25°	1056	1041	1008	996	985	486
35°	910	886	846	819	806	569
45°	745	716	667	631	616	574
55°	565	534	483	443	427	505
65°	382	350	302	266	251	379
75°	204	175	137	118	110	216
85°	51	35	30	29	28	57
90°	0	3	5	7	8	4
95°	20	21	24	26	27	22
105°	72	74	75	77	78	77
115°	136	137	138	137	137	134
125°	198	200	200	200	200	177
135°	258	260	260	260	259	199
145°	312	314	314	314	314	195
155°	357	357	358	359	357	165
165°	389	388	388	389	388	110
175°	404	403	403	404	402	38
180°	405	405	405	405	405	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1226.2	1226.2	1226.2	1226.2	1226.2	1226.2	1226.2	1226.2	1226.2	1226.2	1226.2
2.5°	1228.3	1227.9	1227.4	1226.9	1226.4	1225.3	1223.7	1222.0	1220.4	1218.7	1220.4
5°	1224.3	1223.5	1222.6	1221.8	1221.0	1219.5	1217.2	1215.0	1212.6	1210.4	1212.5
7.5°	1212.3	1211.5	1210.7	1209.9	1209.2	1207.4	1204.7	1201.9	1199.3	1196.5	1197.9
10°	1201.1	1200.5	1199.9	1199.3	1198.6	1196.9	1194.1	1191.1	1188.3	1185.4	1186.0
12.5°	1188.6	1187.8	1187.0	1186.2	1185.4	1183.1	1179.2	1175.4	1171.5	1167.6	1168.1
15°	1164.1	1162.9	1161.6	1160.4	1159.1	1156.4	1152.1	1147.7	1143.4	1139.1	1138.9
17.5°	1136.5	1134.6	1132.7	1130.9	1128.9	1125.2	1119.8	1114.4	1108.9	1103.5	1102.5
20°	1115.0	1112.9	1110.9	1108.8	1106.8	1102.4	1095.9	1089.3	1082.7	1076.1	1075.1
22.5°	1091.3	1089.2	1087.2	1085.1	1083.1	1078.6	1071.7	1064.8	1057.8	1051.0	1048.9
25°	1055.8	1052.7	1049.5	1046.5	1043.4	1038.0	1030.5	1022.8	1015.2	1007.6	1005.0
27.5°	1015.0	1011.3	1007.5	1003.8	1000.1	994.1	986.0	977.8	969.6	961.4	957.7
30°	985.3	981.4	977.6	973.7	969.7	963.4	954.8	946.2	937.5	928.9	924.2
32.5°	956.4	951.9	947.4	942.8	938.2	931.5	922.7	913.9	905.1	896.3	891.1
35°	909.5	904.5	899.6	894.6	889.7	882.5	873.3	864.1	854.8	845.5	839.5
37.5°	863.3	857.3	851.3	845.3	839.3	831.5	822.0	812.3	802.8	793.3	786.1
40°	830.7	824.6	818.3	812.2	806.0	798.0	788.1	778.2	768.4	758.5	750.6
42.5°	796.7	790.3	784.0	777.6	771.2	763.0	752.8	742.6	732.4	722.2	714.7
45°	744.6	738.6	732.6	726.7	720.7	712.0	700.7	689.5	678.1	666.8	658.5
47.5°	690.7	684.4	678.1	671.8	665.5	656.7	645.2	633.8	622.4	611.0	602.5
50°	656.6	649.8	643.0	636.2	629.5	620.2	608.4	596.7	585.0	573.3	564.6
52.5°	619.6	612.6	605.6	598.7	591.7	582.7	571.7	560.6	549.5	538.4	529.1
55°	564.9	558.3	551.8	545.2	538.6	529.5	518.0	506.5	495.0	483.4	474.1
57.5°	509.7	502.7	495.6	488.6	481.6	472.5	461.4	450.2	439.2	428.0	419.0
60°	474.1	467.0	459.8	452.5	445.3	436.2	425.1	413.9	402.9	391.7	382.7
62.5°	436.4	429.5	422.7	415.7	408.8	399.8	388.5	377.3	366.0	354.7	346.3
65°	382.5	375.5	368.5	361.5	354.5	345.5	334.7	323.7	312.8	301.9	293.6
67.5°	329.0	321.9	315.0	308.0	301.0	292.2	281.8	271.3	260.9	250.4	242.9
70°	292.7	285.6	278.7	271.6	264.7	256.0	245.8	235.4	225.2	214.8	208.5
72.5°	257.1	250.2	243.4	236.6	229.8	221.5	211.9	202.2	192.6	183.0	177.1
75°	203.8	197.6	191.4	185.2	179.1	171.7	163.0	154.4	145.7	137.1	132.5
77.5°	150.8	145.8	140.9	136.0	131.0	125.1	118.2	111.3	104.3	97.5	94.3
80°	120.4	115.5	110.5	105.6	100.7	95.3	89.5	83.7	78.0	72.2	70.4
82.5°	90.8	86.3	81.9	77.4	72.9	68.8	64.8	60.9	56.9	53.0	52.1
85°	50.9	47.3	43.5	39.9	36.1	33.7	32.7	31.7	30.7	29.6	29.4
87.5°	17.1	16.1	15.0	14.0	12.9	12.4	12.3	12.2	12.2	12.1	12.2
90°	0.4	0.9	1.4	2.0	2.6	3.1	3.6	4.1	4.5	5.1	5.4
92.5°	7.7	8.0	8.4	8.8	9.2	9.7	10.3	10.9	11.5	12.1	12.6
95°	20.5	20.6	20.8	20.9	21.0	21.5	22.2	22.8	23.5	24.3	24.8
97.5°	34.1	34.1	34.2	34.2	34.2	34.8	35.8	36.7	37.6	38.6	39.1
100°	44.1	44.1	44.1	44.1	44.1	44.6	45.5	46.4	47.3	48.2	48.9
102.5°	54.9	55.3	55.6	55.8	56.1	56.4	56.9	57.3	57.9	58.3	59.0
105°	71.9	72.2	72.6	72.9	73.3	73.7	74.1	74.5	74.9	75.3	75.7
107.5°	90.5	90.9	91.2	91.6	91.9	92.3	92.6	92.9	93.2	93.5	93.7
110°	103.3	103.7	104.1	104.4	104.8	105.0	105.2	105.5	105.7	105.9	106.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	116.5	116.6	116.8	117.0	117.2	117.4	117.7	118.0	118.2	118.5	118.6
115°	135.8	136.1	136.4	136.7	137.0	137.1	137.3	137.4	137.6	137.8	137.7
117.5°	155.2	155.3	155.5	155.6	155.8	155.9	156.0	156.1	156.2	156.4	156.4
120°	167.4	167.7	168.1	168.4	168.7	169.0	169.1	169.1	169.2	169.2	169.2
122.5°	180.5	180.6	180.7	180.8	180.9	181.1	181.3	181.5	181.6	181.8	181.8
125°	198.2	198.7	199.1	199.5	199.9	200.2	200.3	200.3	200.4	200.5	200.3
127.5°	217.1	217.4	217.7	217.8	218.1	218.3	218.4	218.5	218.6	218.6	218.6
130°	228.5	228.8	229.2	229.5	229.9	230.2	230.2	230.4	230.6	230.7	230.6
132.5°	239.9	240.4	241.0	241.6	242.1	242.5	242.4	242.4	242.4	242.3	242.2
135°	257.8	258.2	258.7	259.0	259.5	259.8	259.8	259.8	259.9	260.0	260.0
137.5°	274.7	275.1	275.5	275.9	276.3	276.6	276.8	276.9	277.1	277.2	277.3
140°	285.5	285.9	286.2	286.6	287.0	287.2	287.4	287.7	287.8	288.0	288.2
142.5°	296.4	296.7	296.9	297.3	297.6	297.8	298.1	298.4	298.6	298.9	299.0
145°	312.4	312.6	312.9	313.2	313.4	313.7	313.9	314.1	314.3	314.5	314.5
147.5°	327.1	327.3	327.3	327.5	327.7	327.9	328.1	328.2	328.3	328.5	328.7
150°	336.9	336.9	336.8	336.7	336.6	336.7	337.0	337.3	337.6	337.9	337.9
152.5°	345.0	345.1	345.2	345.3	345.4	345.4	345.6	345.7	345.8	345.9	346.1
155°	357.4	357.4	357.4	357.4	357.4	357.4	357.5	357.6	357.7	357.8	358.0
157.5°	368.5	368.4	368.2	368.0	367.9	367.8	367.9	368.0	368.0	368.1	368.4
160°	375.1	374.9	374.6	374.4	374.3	374.2	374.3	374.3	374.3	374.4	374.7
162.5°	380.8	380.7	380.6	380.4	380.2	380.1	380.1	380.2	380.2	380.2	380.6
165°	388.6	388.4	388.3	388.2	388.1	388.0	388.1	388.2	388.3	388.3	388.6
167.5°	395.1	394.8	394.6	394.3	394.0	393.9	393.9	393.9	393.9	393.9	394.3
170°	398.7	398.4	398.1	397.9	397.5	397.4	397.4	397.4	397.4	397.4	397.9
172.5°	401.2	400.9	400.6	400.4	400.1	399.9	399.9	399.9	399.9	399.9	400.4
175°	404.0	403.8	403.5	403.2	403.0	402.8	402.8	402.8	402.8	402.8	403.2
177.5°	405.5	405.3	405.0	404.8	404.6	404.5	404.4	404.4	404.3	404.2	404.6
180°	405.0	405.0	405.0	405.0	405.0	405.0	405.0	405.0	405.0	405.0	405.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1226.2	1226.2	1226.2	1226.2	1226.2	1226.2	1226.2	1226.2
2.5°	1222.0	1223.7	1225.3	1226.1	1225.9	1225.7	1225.6	1225.4
5°	1214.5	1216.6	1218.6	1219.5	1219.1	1218.6	1218.3	1217.8
7.5°	1199.4	1200.9	1202.3	1202.7	1202.3	1201.8	1201.4	1201.0
10°	1186.6	1187.2	1187.8	1187.8	1187.2	1186.6	1186.0	1185.4
12.5°	1168.5	1168.9	1169.4	1169.2	1168.2	1167.2	1166.4	1165.4
15°	1138.7	1138.4	1138.3	1137.3	1135.4	1133.5	1131.7	1129.8
17.5°	1101.4	1100.5	1099.4	1098.1	1096.6	1095.1	1093.6	1092.1
20°	1074.1	1073.0	1072.0	1070.6	1068.7	1066.8	1065.0	1063.2
22.5°	1046.9	1044.9	1042.9	1041.1	1039.6	1038.0	1036.5	1035.0
25°	1002.3	999.6	996.9	994.4	992.1	989.9	987.7	985.3
27.5°	954.0	950.2	946.5	943.5	941.4	939.1	937.0	934.8
30°	919.4	914.7	909.9	906.7	904.8	902.9	901.1	899.2
32.5°	885.8	880.6	875.4	871.6	869.2	866.9	864.5	862.2
35°	833.6	827.6	821.6	817.3	814.3	811.5	808.6	805.7
37.5°	779.0	771.8	764.6	759.6	756.9	754.0	751.3	748.5
40°	742.8	735.0	727.2	722.0	719.6	717.1	714.6	712.2
42.5°	707.2	699.7	692.2	686.6	683.1	679.4	675.7	672.2
45°	650.3	642.1	633.8	628.2	625.1	622.1	618.9	615.8
47.5°	594.1	585.6	577.1	571.1	567.8	564.4	560.9	557.5
50°	556.0	547.3	538.7	532.8	529.8	526.6	523.5	520.5
52.5°	519.9	510.5	501.2	495.0	492.0	488.8	485.8	482.7
55°	464.9	455.7	446.4	440.1	436.8	433.5	430.3	427.0
57.5°	409.9	400.9	391.8	385.8	382.9	380.0	377.1	374.2
60°	373.6	364.5	355.5	349.5	346.3	343.3	340.2	337.1
62.5°	337.9	329.5	321.1	315.4	312.3	309.2	306.1	303.0
65°	285.4	277.2	268.9	263.3	260.2	257.2	254.0	250.9
67.5°	235.3	227.8	220.3	215.3	212.9	210.4	207.9	205.5
70°	202.1	195.7	189.3	184.9	182.4	179.9	177.5	175.0
72.5°	171.2	165.3	159.4	155.7	154.0	152.4	150.8	149.1
75°	128.0	123.5	119.0	116.0	114.5	113.1	111.6	110.2
77.5°	91.0	87.9	84.7	82.7	81.6	80.5	79.5	78.4
80°	68.6	66.7	64.8	63.7	63.3	62.9	62.4	62.1
82.5°	51.3	50.4	49.5	49.0	48.7	48.5	48.2	48.0
85°	29.2	29.0	28.8	28.6	28.4	28.2	28.0	27.8
87.5°	12.3	12.3	12.4	12.4	12.2	12.1	12.0	11.9
90°	5.7	6.1	6.4	6.7	7.0	7.1	7.3	7.6
92.5°	13.0	13.5	13.9	14.3	14.4	14.5	14.7	14.9
95°	25.2	25.8	26.2	26.6	26.7	26.8	26.9	27.1
97.5°	39.6	40.0	40.5	40.8	40.8	40.9	41.0	41.1
100°	49.5	50.1	50.7	51.1	51.3	51.5	51.5	51.7
102.5°	59.7	60.4	61.1	61.5	61.7	61.9	62.1	62.2
105°	76.2	76.6	77.0	77.3	77.5	77.8	77.9	78.2
107.5°	94.0	94.2	94.3	94.5	94.4	94.4	94.4	94.4
110°	106.3	106.6	106.7	106.8	106.7	106.6	106.6	106.6



TEST NUMBER: P333554-940

CATALOG NUMBER: S125RDIP-S850D365U940-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	118.7	118.8	118.9	118.9	118.8	118.6	118.5	118.4
115°	137.6	137.5	137.4	137.4	137.3	137.2	137.1	137.1
117.5°	156.5	156.6	156.6	156.5	156.2	156.0	155.7	155.3
120°	169.2	169.2	169.2	169.1	168.8	168.5	168.3	168.0
122.5°	181.7	181.6	181.6	181.5	181.3	181.0	180.8	180.6
125°	200.2	200.0	199.9	199.7	199.7	199.7	199.6	199.5
127.5°	218.5	218.4	218.3	218.2	218.1	217.9	217.8	217.7
130°	230.6	230.5	230.4	230.3	230.2	230.1	229.9	229.8
132.5°	242.2	242.1	242.0	241.9	241.7	241.5	241.3	241.1
135°	260.0	260.0	260.0	259.8	259.6	259.3	259.0	258.8
137.5°	277.4	277.5	277.6	277.4	277.1	276.7	276.3	276.0
140°	288.4	288.5	288.6	288.6	288.2	287.8	287.5	287.1
142.5°	299.1	299.2	299.3	299.1	298.7	298.4	298.1	297.7
145°	314.5	314.5	314.5	314.4	314.2	314.0	313.8	313.6
147.5°	328.9	329.0	329.2	329.0	328.6	328.1	327.6	327.2
150°	337.9	337.9	337.9	337.8	337.7	337.5	337.3	337.2
152.5°	346.3	346.4	346.6	346.5	346.3	346.1	345.8	345.5
155°	358.3	358.6	358.8	358.8	358.5	358.1	357.8	357.4
157.5°	368.6	369.0	369.3	369.2	368.7	368.2	367.7	367.3
160°	375.0	375.2	375.5	375.5	375.1	374.8	374.4	374.1
162.5°	380.8	381.2	381.6	381.6	381.1	380.7	380.3	379.9
165°	388.9	389.1	389.4	389.3	388.9	388.5	388.1	387.6
167.5°	394.8	395.1	395.6	395.6	395.1	394.7	394.2	393.9
170°	398.2	398.7	399.1	399.0	398.6	398.1	397.6	397.1
172.5°	400.8	401.2	401.6	401.6	401.2	400.7	400.3	399.8
175°	403.6	404.0	404.5	404.4	403.9	403.4	403.0	402.4
177.5°	404.9	405.3	405.6	405.6	405.2	404.7	404.4	403.9
180°	405.0	405.0	405.0	405.0	405.0	405.0	405.0	405.0

(END OF REPORT)