

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: P333559-940

Luminaire Tested: **S125RDIP-S850D590U940-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333559-940
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-7,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125RDIP-S850D590U940-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 590 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5005.7 lumens
Efficiency: N/A
Efficacy: 124.2 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

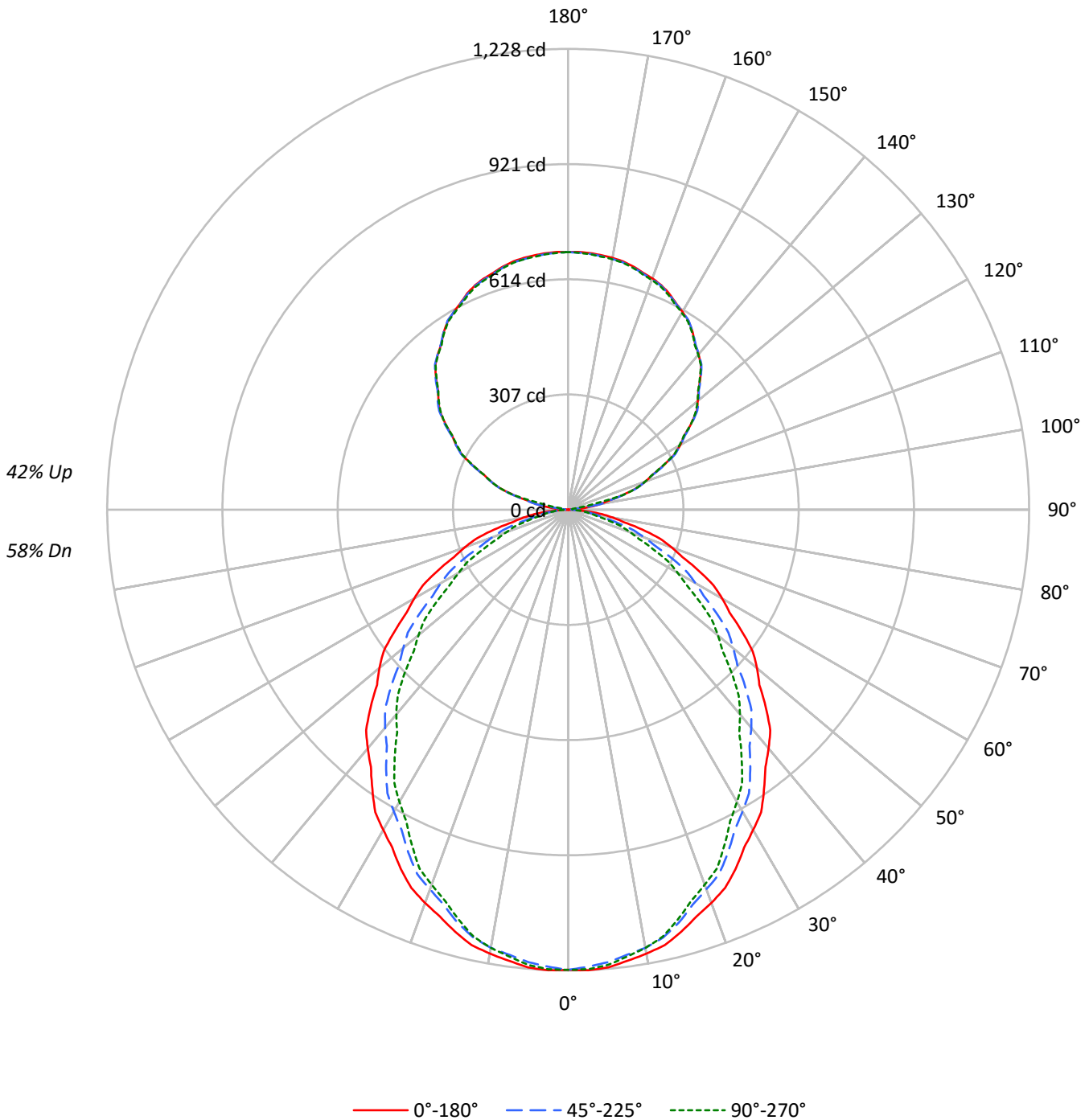
Input Watts (W): 40.3
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	75	75	75	63	63	63	58
1	100	96	92	88	93	89	86	83	77	75	73	66	65	63	56	55	54	49
2	91	84	78	72	85	78	73	68	68	64	61	59	56	53	50	48	46	42
3	83	74	66	61	77	69	63	57	60	55	51	52	48	45	44	42	39	36
4	76	65	58	52	71	61	54	49	54	48	44	47	42	39	40	37	34	31
5	70	59	50	44	65	55	48	42	48	42	38	42	37	34	36	33	30	27
6	65	53	44	39	60	49	42	37	44	38	33	38	33	30	33	29	26	24
7	60	48	40	34	56	45	38	32	40	34	29	35	30	26	30	26	24	21
8	56	43	36	30	52	41	34	29	36	30	26	32	27	24	28	24	21	19
9	52	40	32	27	48	37	31	26	33	28	24	29	25	21	26	22	19	17
10	49	36	29	24	45	34	28	23	31	25	21	27	23	19	24	20	17	16

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	2.3
10°-20°	322.2	6.4
20°-30°	467.2	9.3
30°-40°	532.5	10.6
40°-50°	519.1	10.4
50°-60°	436.9	8.7
60°-70°	306.3	6.1
70°-80°	157.4	3.1
80°-90°	41.2	0.8
90°-100°	24.9	0.5
100°-110°	153.7	3.1
110°-120°	278.8	5.6
120°-130°	357.8	7.1
130°-140°	384.8	7.7
140°-150°	361.2	7.2
150°-160°	292.2	5.8
160°-170°	189.0	3.8
170°-180°	65.2	1.3
0°-30°	904.7	18.1
0°-40°	1437.3	28.7
0°-60°	2393.2	47.8
0°-90°	2898.2	57.9
90°-120°	457.4	9.1
90°-150°	1561.2	31.2
90°-180°	2108.0	42.1
0°-180°	5005.7	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	5	8	11	12	4
95°	29	26	8	11	11	37
105°	150	152	152	152	151	159
115°	281	283	284	282	279	278
125°	399	403	403	401	399	357
135°	498	501	500	499	496	384
145°	578	578	578	579	576	361
155°	636	633	634	635	631	293
165°	671	668	668	671	667	189
175°	686	683	684	687	683	65
180°	686	686	686	686	686	



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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	15.2	14.3	13.3	12.8	12.8	12.8	12.8	12.8	12.8
90°	0.5	1.4	2.3	3.2	4.1	5.0	5.8	6.6	7.3	8.1	8.7
92.5°	7.8	7.2	6.6	6.0	5.3	5.4	6.1	6.8	7.4	8.1	8.7
95°	29.0	28.6	28.4	28.0	27.6	25.3	21.0	16.8	12.4	8.1	8.7
97.5°	60.5	61.2	61.8	62.3	63.0	59.0	50.6	42.0	33.5	25.1	21.8
100°	85.0	85.3	85.6	86.0	86.3	86.7	87.2	87.7	88.1	88.5	71.7
102.5°	109.8	110.2	110.7	111.1	111.5	111.8	112.1	112.4	112.7	113.0	109.8
105°	149.5	150.0	150.5	151.0	151.4	151.6	151.6	151.6	151.6	151.6	151.6
107.5°	190.9	190.9	190.9	190.9	190.9	191.0	191.2	191.5	191.7	191.9	191.9
110°	217.8	217.8	217.8	217.8	217.8	217.8	218.1	218.3	218.6	218.7	218.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	243.0	243.3	243.5	243.8	244.1	244.2	244.4	244.5	244.7	244.8	244.4
115°	280.8	281.4	282.0	282.5	283.1	283.5	283.6	283.7	283.7	283.9	283.5
117.5°	320.0	319.9	319.9	319.9	319.9	320.1	320.6	321.0	321.4	321.8	321.3
120°	344.5	344.3	344.2	344.1	343.9	344.1	344.5	344.7	345.1	345.4	345.2
122.5°	366.0	366.4	366.8	367.3	367.7	368.0	368.2	368.4	368.5	368.6	368.5
125°	399.4	400.2	400.9	401.7	402.5	403.0	403.0	403.0	403.0	403.0	402.5
127.5°	431.2	431.8	432.4	432.9	433.5	433.7	433.6	433.6	433.5	433.5	433.2
130°	450.8	451.3	451.9	452.5	453.0	453.3	453.4	453.6	453.7	453.8	453.4
132.5°	470.3	470.9	471.6	472.3	472.9	473.1	472.9	472.6	472.3	472.2	472.1
135°	498.1	498.7	499.4	500.1	500.8	501.1	500.8	500.5	500.3	500.1	499.9
137.5°	523.6	524.2	524.8	525.4	525.9	526.2	525.9	525.8	525.6	525.3	525.4
140°	540.3	540.6	540.7	541.0	541.2	541.3	541.2	541.0	540.9	540.8	541.0
142.5°	555.4	555.5	555.6	555.8	555.9	556.1	556.2	556.3	556.5	556.7	556.7
145°	577.5	577.7	577.9	578.1	578.4	578.5	578.5	578.5	578.5	578.5	578.5
147.5°	596.7	596.7	596.6	596.6	596.6	596.6	596.7	596.9	597.0	597.2	597.4
150°	608.9	608.8	608.5	608.3	608.1	608.1	608.3	608.5	608.8	608.9	609.2
152.5°	620.8	620.3	619.8	619.3	618.8	618.7	618.8	619.1	619.3	619.6	619.8
155°	636.0	635.3	634.6	633.9	633.2	633.0	633.2	633.5	633.6	633.9	634.3
157.5°	647.6	647.2	646.8	646.4	646.0	645.9	645.9	645.9	645.9	646.0	646.3
160°	655.8	655.1	654.4	653.7	653.1	652.8	652.9	653.0	653.1	653.3	653.7
162.5°	662.3	661.6	660.9	660.2	659.6	659.3	659.4	659.5	659.6	659.8	660.4
165°	671.0	670.4	669.7	669.1	668.3	668.1	668.2	668.2	668.4	668.5	669.1
167.5°	677.5	676.9	676.2	675.5	674.8	674.5	674.6	674.7	674.8	674.9	675.7
170°	681.3	680.5	679.7	678.9	678.1	677.7	677.8	678.0	678.1	678.1	679.0
172.5°	683.7	682.9	682.1	681.3	680.5	680.2	680.4	680.6	680.8	681.0	681.8
175°	686.3	685.6	684.9	684.3	683.6	683.3	683.4	683.6	683.7	683.8	684.7
177.5°	687.5	687.0	686.4	685.9	685.4	685.1	685.2	685.3	685.4	685.5	686.2
180°	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3



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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°	12.9	13.1	13.2	13.2	13.1	13.0	12.9	12.8
90°	9.3	9.8	10.4	10.9	11.2	11.5	11.9	12.2
92.5°	9.3	9.8	10.4	10.8	10.9	11.1	11.2	11.4
95°	9.3	9.8	10.4	10.7	10.7	10.7	10.7	10.7
97.5°	18.6	15.4	12.3	10.7	10.7	10.7	10.7	10.7
100°	54.8	38.0	21.1	12.5	12.0	11.6	11.1	10.7
102.5°	106.6	103.3	100.2	94.8	87.0	79.4	71.7	64.0
105°	151.6	151.6	151.6	151.6	151.4	151.3	151.2	151.1
107.5°	192.0	192.0	192.0	191.8	191.5	191.2	190.8	190.5
110°	218.1	217.8	217.4	217.3	217.4	217.5	217.7	217.8



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CATALOG NUMBER: S125RDIP-S850D590U940-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	244.0	243.5	243.1	242.8	242.6	242.5	242.4	242.2
115°	282.9	282.5	282.0	281.5	280.8	280.2	279.5	278.8
117.5°	320.7	320.0	319.5	319.1	318.8	318.4	318.2	317.9
120°	345.0	344.7	344.6	344.1	343.6	343.0	342.4	341.9
122.5°	368.2	368.0	367.7	367.3	366.7	366.0	365.3	364.7
125°	402.1	401.5	401.1	400.7	400.4	400.0	399.8	399.4
127.5°	432.9	432.7	432.5	431.9	431.1	430.3	429.4	428.6
130°	453.2	452.8	452.5	452.0	451.5	450.8	450.3	449.8
132.5°	472.0	471.9	471.9	471.5	471.0	470.4	469.8	469.3
135°	499.6	499.4	499.2	498.7	498.1	497.4	496.7	496.1
137.5°	525.4	525.5	525.5	525.2	524.7	524.1	523.5	522.9
140°	541.3	541.4	541.7	541.4	540.8	540.1	539.5	538.8
142.5°	556.8	556.8	556.9	556.5	555.9	555.2	554.5	553.8
145°	578.7	578.8	578.9	578.6	577.9	577.3	576.6	575.9
147.5°	597.4	597.6	597.7	597.4	596.6	595.8	594.9	594.1
150°	609.4	609.7	609.8	609.6	608.7	607.7	606.8	605.9
152.5°	620.0	620.3	620.5	620.2	619.4	618.6	617.7	616.9
155°	634.6	634.9	635.3	635.0	634.1	633.2	632.3	631.3
157.5°	646.7	647.0	647.4	647.1	646.2	645.2	644.4	643.5
160°	654.2	654.6	655.1	654.8	653.9	653.0	652.1	651.2
162.5°	661.0	661.6	662.3	662.1	661.1	660.1	659.2	658.1
165°	669.9	670.6	671.2	671.1	670.2	669.3	668.4	667.4
167.5°	676.5	677.3	678.1	678.1	677.1	676.0	675.0	674.0
170°	680.0	680.9	681.8	681.7	680.7	679.7	678.7	677.7
172.5°	682.6	683.5	684.3	684.2	683.1	682.2	681.1	680.1
175°	685.5	686.4	687.4	687.3	686.3	685.3	684.3	683.2
177.5°	686.8	687.4	688.0	688.0	687.2	686.5	685.8	685.1
180°	686.3	686.3	686.3	686.3	686.3	686.3	686.3	686.3

(END OF REPORT)