

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: P333682-940

Luminaire Tested: **S125RDIW-S850D470U940-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333682-940
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: S125RDIW-S850D470U940-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 470 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

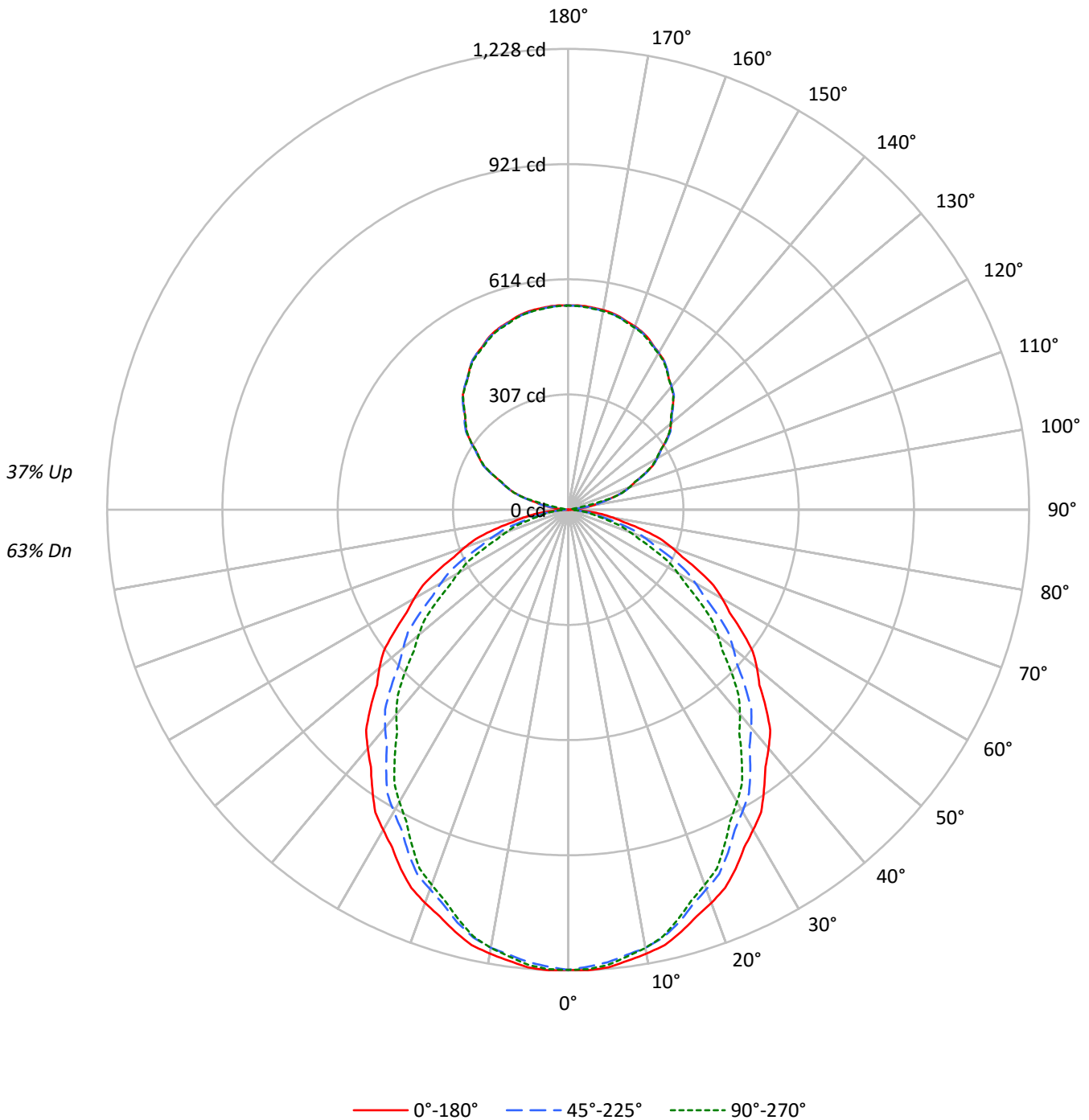
Lumens per Lamp: N/A
Luminaire Lumens: 4569.0 lumens
Efficiency: N/A
Efficacy: 121.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 37.7
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	110	110	110	110	104	104	104	104	91	91	91	79	79	79	68	68	68	63
1	101	97	93	89	95	91	88	85	80	78	75	70	68	67	61	60	58	54
2	92	85	79	74	86	80	74	70	71	66	63	62	59	56	54	52	50	46
3	84	75	67	62	79	71	64	59	62	57	53	55	51	48	48	45	43	39
4	77	66	58	52	72	63	56	50	56	50	46	49	45	41	43	40	37	34
5	71	59	51	45	67	56	49	43	50	44	39	44	40	36	39	35	32	29
6	66	53	45	39	61	51	43	38	45	39	35	40	35	32	35	32	29	26
7	61	48	40	35	57	46	39	33	41	35	31	37	32	28	32	28	25	23
8	57	44	36	31	53	42	35	30	38	32	27	34	29	25	30	26	23	21
9	53	40	33	28	50	38	31	27	35	29	25	31	26	23	28	24	21	19
10	49	37	30	25	46	35	29	24	32	26	22	29	24	21	26	22	19	17

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	2.5
10°-20°	322.2	7.1
20°-30°	467.2	10.2
30°-40°	532.5	11.7
40°-50°	519.1	11.4
50°-60°	436.9	9.6
60°-70°	306.3	6.7
70°-80°	157.4	3.4
80°-90°	40.9	0.9
90°-100°	19.8	0.4
100°-110°	121.9	2.7
110°-120°	221.0	4.8
120°-130°	283.7	6.2
130°-140°	305.1	6.7
140°-150°	286.4	6.3
150°-160°	231.7	5.1
160°-170°	149.8	3.3
170°-180°	51.7	1.1
0°-30°	904.7	19.8
0°-40°	1437.3	31.5
0°-60°	2393.2	52.4
0°-90°	2897.9	63.4
90°-120°	362.7	7.9
90°-150°	1237.9	27.1
90°-180°	1671.0	36.6
0°-180°	4569.0	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	4	6	8	10	3
95°	23	21	6	8	8	29
105°	119	120	120	120	120	126
115°	223	225	225	223	221	221
125°	317	319	320	318	317	283
135°	395	397	396	396	393	304
145°	458	459	459	459	457	286
155°	504	502	503	504	501	232
165°	532	530	530	532	529	150
175°	544	542	542	545	542	52
180°	544	544	544	544	544	



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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	15.1	14.1	13.1	12.6	12.5	12.5	12.5	12.4	12.5
90°	0.4	1.2	1.9	2.6	3.3	3.9	4.5	5.2	5.8	6.4	6.9
92.5°	6.2	5.7	5.2	4.7	4.2	4.2	4.8	5.4	5.9	6.4	6.9
95°	23.0	22.7	22.5	22.2	21.9	20.1	16.7	13.3	9.9	6.4	6.9
97.5°	48.0	48.5	49.0	49.5	49.9	46.8	40.0	33.3	26.6	19.9	17.3
100°	67.3	67.7	67.9	68.2	68.5	68.8	69.1	69.5	69.8	70.2	56.8
102.5°	87.0	87.4	87.7	88.1	88.5	88.7	88.9	89.1	89.3	89.5	87.0
105°	118.6	119.0	119.3	119.7	120.0	120.2	120.2	120.2	120.2	120.2	120.2
107.5°	151.3	151.3	151.3	151.3	151.3	151.4	151.6	151.8	151.9	152.1	152.2
110°	172.6	172.6	172.6	172.6	172.6	172.7	172.9	173.1	173.3	173.4	173.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	192.7	192.9	193.1	193.3	193.5	193.7	193.8	193.9	194.0	194.1	193.8
115°	222.7	223.1	223.6	224.0	224.4	224.7	224.8	224.9	225.0	225.1	224.7
117.5°	253.8	253.7	253.7	253.7	253.7	253.9	254.1	254.5	254.9	255.2	254.8
120°	273.1	273.0	273.0	272.9	272.8	272.9	273.1	273.4	273.7	273.9	273.8
122.5°	290.3	290.5	290.9	291.2	291.6	291.8	291.9	292.0	292.2	292.3	292.1
125°	316.6	317.3	317.9	318.5	319.1	319.5	319.5	319.5	319.5	319.5	319.1
127.5°	341.9	342.4	342.9	343.3	343.8	343.9	343.8	343.8	343.8	343.7	343.5
130°	357.4	357.8	358.3	358.7	359.2	359.4	359.5	359.6	359.7	359.8	359.5
132.5°	372.9	373.4	374.0	374.4	375.0	375.1	375.0	374.8	374.5	374.3	374.3
135°	394.9	395.5	396.0	396.5	397.1	397.3	397.1	396.9	396.7	396.5	396.4
137.5°	415.2	415.6	416.1	416.6	417.1	417.2	417.1	416.9	416.7	416.5	416.6
140°	428.4	428.6	428.7	428.9	429.1	429.2	429.1	429.0	428.9	428.8	429.0
142.5°	440.3	440.5	440.6	440.7	440.8	440.9	441.0	441.1	441.3	441.4	441.4
145°	457.9	458.1	458.3	458.4	458.6	458.7	458.7	458.7	458.7	458.7	458.8
147.5°	473.2	473.1	473.1	473.1	473.1	473.1	473.2	473.3	473.4	473.5	473.6
150°	482.9	482.7	482.5	482.3	482.1	482.1	482.3	482.5	482.7	482.9	483.0
152.5°	492.2	491.9	491.4	491.1	490.6	490.5	490.7	490.9	491.1	491.2	491.4
155°	504.3	503.7	503.2	502.7	502.1	501.9	502.1	502.3	502.5	502.7	502.9
157.5°	513.5	513.2	512.9	512.6	512.2	512.1	512.1	512.1	512.1	512.2	512.5
160°	520.0	519.4	518.9	518.4	517.8	517.6	517.7	517.8	517.9	518.0	518.4
162.5°	525.1	524.6	524.1	523.5	523.0	522.8	522.9	523.0	523.1	523.2	523.6
165°	532.1	531.5	531.0	530.5	529.9	529.7	529.8	529.9	529.9	530.0	530.6
167.5°	537.3	536.7	536.2	535.6	535.0	534.8	534.8	534.9	535.0	535.1	535.8
170°	540.2	539.6	538.9	538.2	537.6	537.3	537.4	537.5	537.6	537.7	538.4
172.5°	542.1	541.4	540.8	540.2	539.6	539.4	539.5	539.7	539.8	540.0	540.6
175°	544.2	543.7	543.1	542.6	542.1	541.8	541.9	542.0	542.1	542.2	542.9
177.5°	545.2	544.7	544.3	543.9	543.4	543.2	543.3	543.4	543.5	543.6	544.0
180°	544.2	544.2	544.2	544.2	544.2	544.2	544.2	544.2	544.2	544.2	544.2



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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°	12.6	12.7	12.8	12.8	12.7	12.6	12.4	12.3
90°	7.3	7.8	8.2	8.6	8.9	9.2	9.5	9.7
92.5°	7.3	7.8	8.2	8.6	8.6	8.8	8.9	9.0
95°	7.3	7.8	8.2	8.5	8.5	8.5	8.5	8.5
97.5°	14.8	12.3	9.7	8.5	8.5	8.5	8.5	8.5
100°	43.5	30.1	16.8	9.9	9.5	9.2	8.8	8.5
102.5°	84.5	81.9	79.5	75.2	69.0	63.0	56.8	50.7
105°	120.2	120.2	120.2	120.2	120.1	120.0	119.9	119.8
107.5°	152.2	152.2	152.2	152.1	151.9	151.6	151.3	151.1
110°	172.9	172.6	172.4	172.3	172.4	172.5	172.5	172.6



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CATALOG NUMBER: S125RDIW-S850D470U940-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	193.4	193.1	192.8	192.5	192.4	192.3	192.2	192.0
115°	224.4	224.0	223.6	223.2	222.7	222.1	221.6	221.1
117.5°	254.2	253.8	253.3	253.0	252.7	252.5	252.3	252.1
120°	273.6	273.4	273.2	272.9	272.4	272.0	271.5	271.1
122.5°	291.9	291.8	291.6	291.2	290.7	290.2	289.7	289.2
125°	318.8	318.4	318.1	317.7	317.4	317.2	316.9	316.6
127.5°	343.3	343.1	343.0	342.5	341.8	341.2	340.5	339.8
130°	359.3	359.0	358.7	358.4	357.9	357.5	357.0	356.6
132.5°	374.3	374.2	374.2	373.9	373.4	373.0	372.6	372.1
135°	396.2	396.0	395.8	395.5	394.9	394.4	393.9	393.3
137.5°	416.6	416.7	416.7	416.5	416.0	415.5	415.1	414.6
140°	429.2	429.4	429.5	429.4	428.8	428.3	427.8	427.2
142.5°	441.5	441.5	441.6	441.3	440.8	440.2	439.7	439.2
145°	458.9	459.0	459.1	458.8	458.3	457.7	457.2	456.6
147.5°	473.8	473.9	473.9	473.7	473.1	472.4	471.7	471.1
150°	483.2	483.4	483.6	483.3	482.6	481.9	481.2	480.5
152.5°	491.6	491.8	492.0	491.8	491.1	490.4	489.8	489.2
155°	503.2	503.5	503.7	503.5	502.7	502.0	501.3	500.6
157.5°	512.7	513.0	513.3	513.1	512.4	511.7	511.0	510.2
160°	518.7	519.1	519.4	519.2	518.5	517.8	517.1	516.4
162.5°	524.1	524.7	525.1	525.0	524.2	523.4	522.6	521.8
165°	531.2	531.7	532.3	532.2	531.5	530.7	529.9	529.2
167.5°	536.5	537.1	537.7	537.7	536.8	536.0	535.2	534.4
170°	539.1	539.9	540.6	540.6	539.8	539.0	538.1	537.3
172.5°	541.3	541.9	542.6	542.5	541.7	540.9	540.1	539.3
175°	543.6	544.3	545.0	545.0	544.2	543.4	542.6	541.8
177.5°	544.6	545.0	545.5	545.5	544.9	544.4	543.8	543.2
180°	544.2	544.2	544.2	544.2	544.2	544.2	544.2	544.2

(END OF REPORT)