

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: P333211-830

Luminaire Tested: **S125DIP-S850D365U830-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333211-830
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: S125DIP-S850D365U830-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 365 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4600.8 lumens
Efficiency: N/A
Efficacy: 131.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: Semi-Direct

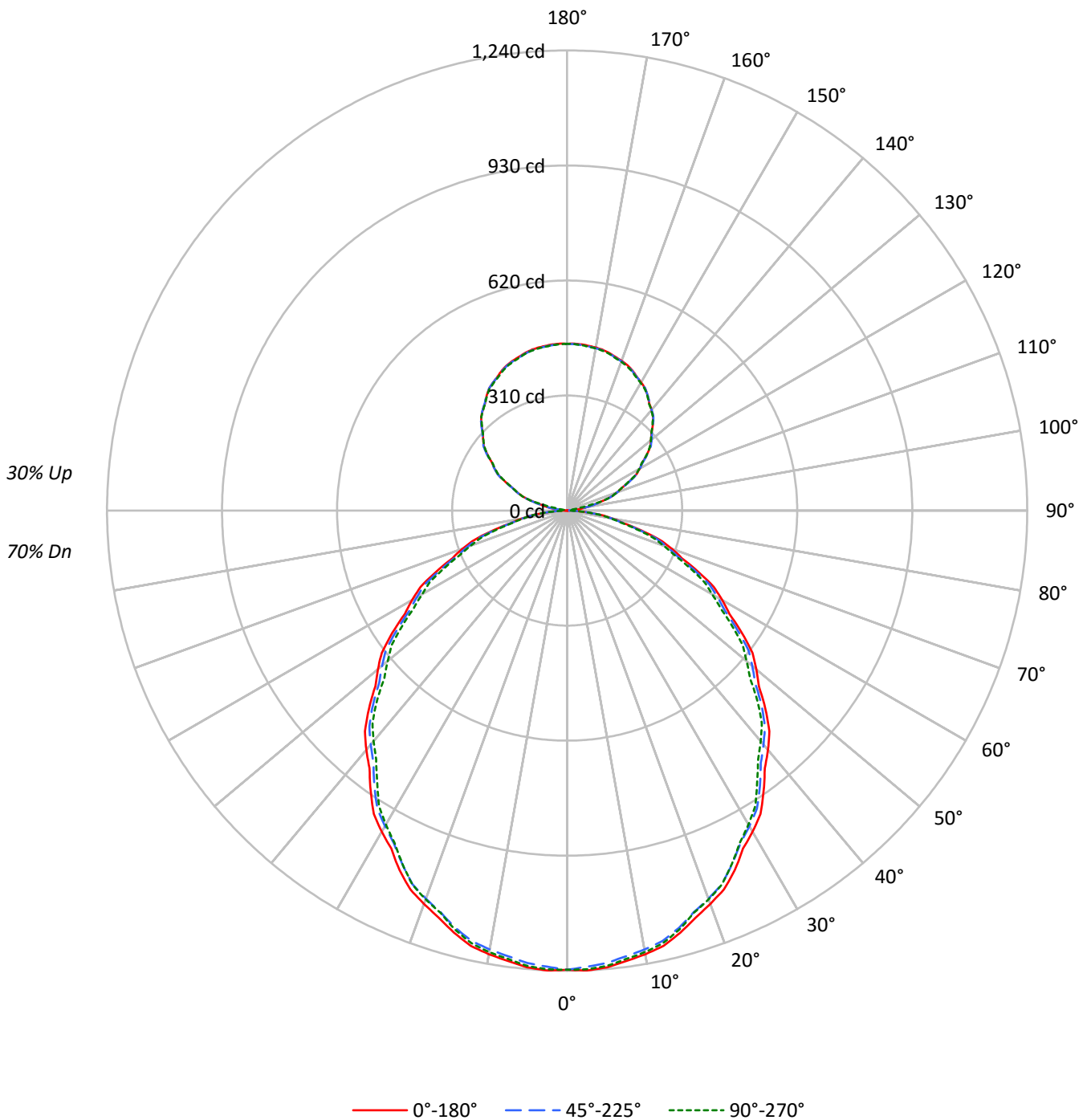
Input Watts (W): 35
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				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	112	112	112	112	106	106	106	106	94	94	94	84	84	84	74	74	74	70
1	102	98	94	90	96	93	89	86	83	80	78	74	72	70	66	64	63	59
2	93	85	79	73	88	81	75	70	73	68	64	65	61	58	58	55	53	49
3	85	75	67	61	80	71	64	59	64	59	54	57	53	49	51	48	45	42
4	78	66	58	52	73	63	56	50	57	51	46	51	46	42	46	42	39	36
5	71	59	51	45	67	56	49	43	51	45	40	46	41	37	41	37	34	31
6	66	53	45	39	62	51	43	38	46	40	35	42	36	32	37	33	30	27
7	61	48	40	34	58	46	38	33	42	35	31	38	33	29	34	30	26	24
8	57	44	36	30	54	42	35	29	38	32	27	35	29	26	31	27	24	22
9	53	40	32	27	50	38	31	26	35	29	25	32	27	23	29	25	21	19
10	50	37	30	25	47	35	28	24	32	26	22	30	25	21	27	23	20	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7991	7991	7991
5°	8009	7933	7983
10°	7960	7877	7922
15°	7874	7782	7815
20°	7750	7649	7663
25°	7617	7492	7485
30°	7454	7322	7285
35°	7278	7139	7039
40°	7098	6940	6842
45°	6902	6760	6625
50°	6688	6540	6344
55°	6481	6293	6117
60°	6234	6044	5829
65°	5938	5744	5550
70°	5655	5399	5214
75°	5153	4983	4811
80°	4590	4515	4407
85°	3987	4068	3838



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.7	2.5
10°-20°	329.6	7.2
20°-30°	486.6	10.6
30°-40°	567.8	12.3
40°-50°	570.3	12.4
50°-60°	500.6	10.9
60°-70°	373.0	8.1
70°-80°	213.3	4.6
80°-90°	63.0	1.4
90°-100°	16.3	0.4
100°-110°	100.7	2.2
110°-120°	182.6	4.0
120°-130°	234.3	5.1
130°-140°	252.0	5.5
140°-150°	236.5	5.1
150°-160°	191.3	4.2
160°-170°	123.8	2.7
170°-180°	42.7	0.9
0°-30°	932.8	20.3
0°-40°	1500.6	32.6
0°-60°	2571.4	55.9
0°-90°	3220.7	70.0
90°-120°	299.6	6.5
90°-150°	1022.4	22.2
90°-180°	1380.0	30.0
0°-180°	4600.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1237	1237	1237	1237	1237	
5°	1235	1233	1224	1232	1231	117
15°	1178	1174	1164	1169	1169	332
25°	1069	1064	1051	1053	1050	492
35°	923	919	906	900	893	577
45°	756	751	740	729	725	582
55°	576	572	559	550	543	514
65°	389	386	376	367	363	386
75°	206	204	200	197	193	220
85°	54	55	55	54	52	60
90°	0	3	5	7	8	4
95°	19	17	5	7	7	24
105°	98	99	99	99	99	104
115°	184	186	186	185	183	182
125°	262	264	264	263	262	234
135°	326	328	328	327	325	251
145°	378	379	379	379	377	236
155°	416	415	415	416	414	192
165°	439	438	438	440	437	124
175°	449	448	448	450	447	43
180°	449	449	449	449	449	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3
2.5°	1240.5	1239.9	1239.4	1238.9	1238.3	1237.2	1235.5	1233.8	1232.0	1230.3	1232.0
5°	1235.4	1234.9	1234.4	1234.1	1233.6	1232.3	1230.1	1227.9	1225.8	1223.6	1225.6
7.5°	1224.0	1223.6	1223.1	1222.7	1222.3	1220.9	1218.4	1216.1	1213.7	1211.3	1213.1
10°	1213.8	1213.4	1213.0	1212.5	1212.1	1210.7	1208.2	1205.9	1203.5	1201.1	1202.9
12.5°	1201.3	1200.5	1199.8	1198.9	1198.2	1196.7	1194.5	1192.2	1190.0	1187.8	1189.2
15°	1177.6	1177.0	1176.3	1175.6	1175.0	1173.5	1171.1	1168.7	1166.3	1163.9	1165.0
17.5°	1150.4	1149.4	1148.5	1147.5	1146.6	1144.8	1142.4	1139.9	1137.4	1134.9	1136.2
20°	1127.7	1127.3	1126.8	1126.3	1126.0	1124.3	1121.4	1118.6	1115.8	1113.0	1114.6
22.5°	1104.9	1104.2	1103.4	1102.6	1101.8	1100.1	1097.5	1094.8	1092.1	1089.5	1090.5
25°	1068.9	1067.9	1066.8	1065.6	1064.6	1062.6	1059.8	1057.0	1054.1	1051.3	1051.8
27.5°	1026.8	1026.2	1025.6	1024.9	1024.3	1022.5	1019.5	1016.6	1013.7	1010.8	1010.9
30°	999.5	998.8	998.2	997.5	996.8	994.9	991.6	988.4	985.1	981.8	981.4
32.5°	969.7	968.7	967.7	966.7	965.7	963.7	960.8	957.9	955.0	952.1	951.3
35°	923.1	922.2	921.3	920.5	919.6	917.7	914.6	911.5	908.5	905.5	904.4
37.5°	874.8	873.6	872.5	871.5	870.3	868.4	865.5	862.6	859.8	857.0	855.3
40°	841.9	840.7	839.7	838.6	837.4	835.5	832.4	829.3	826.3	823.2	821.3
42.5°	806.6	805.7	804.7	803.9	803.0	801.0	798.0	794.8	791.8	788.8	787.0
45°	755.7	754.8	753.9	753.1	752.2	750.5	747.9	745.3	742.6	740.1	737.4
47.5°	700.9	701.0	701.0	701.0	701.1	699.6	696.4	693.2	690.1	687.0	684.3
50°	665.6	665.0	664.3	663.6	663.1	661.4	658.8	656.2	653.6	650.9	648.1
52.5°	629.6	629.1	628.7	628.2	627.7	626.0	623.3	620.5	617.7	614.9	612.5
55°	575.6	575.0	574.3	573.6	573.0	571.1	568.1	565.1	561.9	558.9	556.9
57.5°	518.6	518.3	517.9	517.6	517.3	515.8	513.2	510.7	508.0	505.5	502.9
60°	482.6	481.7	480.9	479.9	479.1	477.5	475.0	472.7	470.3	467.9	465.7
62.5°	445.0	444.3	443.7	442.9	442.2	440.8	438.8	436.8	434.7	432.6	430.4
65°	388.6	388.1	387.8	387.3	386.9	385.5	383.0	380.7	378.2	375.9	373.9
67.5°	334.0	333.1	332.2	331.2	330.4	328.9	327.3	325.5	323.7	321.9	320.2
70°	299.5	298.4	297.4	296.2	295.2	293.7	291.7	289.7	287.8	285.9	284.6
72.5°	261.9	261.2	260.4	259.8	259.0	258.0	256.7	255.4	254.2	253.0	251.5
75°	206.5	206.1	205.7	205.3	204.8	204.1	202.9	201.9	200.8	199.7	199.1
77.5°	155.4	155.2	155.1	155.0	154.8	154.4	153.7	153.2	152.5	151.9	151.6
80°	123.4	123.4	123.4	123.4	123.4	123.1	122.7	122.2	121.8	121.4	121.2
82.5°	95.1	94.8	94.4	94.1	93.8	93.5	93.4	93.4	93.3	93.2	92.8
85°	53.8	54.1	54.3	54.5	54.7	54.9	54.9	54.9	54.9	54.9	54.6
87.5°	21.2	21.3	21.5	21.6	21.7	21.7	21.7	21.6	21.5	21.4	21.5
90°	0.4	0.9	1.5	2.1	2.7	3.3	3.8	4.3	4.8	5.4	5.7
92.5°	5.1	4.7	4.3	3.9	3.5	3.5	4.0	4.4	4.9	5.4	5.7
95°	18.9	18.8	18.6	18.3	18.1	16.6	13.8	10.9	8.1	5.4	5.7
97.5°	39.7	40.1	40.4	40.8	41.3	38.6	33.1	27.5	22.0	16.4	14.3
100°	55.6	55.9	56.1	56.3	56.6	56.7	57.1	57.4	57.7	58.0	46.9
102.5°	71.9	72.2	72.5	72.8	73.0	73.2	73.4	73.6	73.8	74.0	71.9
105°	97.9	98.2	98.6	98.9	99.2	99.2	99.2	99.2	99.2	99.2	99.2
107.5°	125.0	125.0	125.0	125.0	125.0	125.1	125.3	125.4	125.5	125.6	125.6
110°	142.6	142.6	142.6	142.6	142.6	142.7	142.8	143.0	143.1	143.3	143.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	159.1	159.3	159.5	159.7	159.9	159.9	160.0	160.1	160.2	160.3	160.0
115°	183.9	184.3	184.6	185.0	185.4	185.6	185.7	185.8	185.9	185.9	185.6
117.5°	209.5	209.5	209.5	209.5	209.5	209.6	209.9	210.2	210.5	210.8	210.4
120°	225.6	225.5	225.5	225.4	225.3	225.4	225.6	225.7	226.0	226.2	226.1
122.5°	239.7	240.0	240.3	240.5	240.8	241.0	241.1	241.2	241.3	241.4	241.3
125°	261.6	262.0	262.6	263.1	263.6	263.9	263.9	263.9	263.9	263.9	263.5
127.5°	282.4	282.8	283.1	283.5	283.9	284.1	284.0	284.0	283.9	283.9	283.7
130°	295.2	295.6	296.0	296.3	296.7	296.9	297.0	297.0	297.1	297.2	297.0
132.5°	308.0	308.4	308.9	309.2	309.7	309.8	309.7	309.5	309.3	309.2	309.2
135°	326.2	326.6	327.1	327.5	327.9	328.1	327.9	327.8	327.6	327.5	327.3
137.5°	342.9	343.3	343.7	344.0	344.4	344.6	344.4	344.3	344.1	344.0	344.0
140°	353.8	354.0	354.1	354.3	354.4	354.5	354.4	354.3	354.2	354.2	354.3
142.5°	363.7	363.8	363.9	363.9	364.0	364.1	364.3	364.4	364.5	364.6	364.6
145°	378.1	378.3	378.4	378.6	378.7	378.8	378.8	378.8	378.8	378.8	378.9
147.5°	390.8	390.8	390.8	390.7	390.7	390.7	390.8	390.9	391.0	391.1	391.2
150°	398.8	398.7	398.5	398.3	398.2	398.2	398.3	398.5	398.7	398.8	399.0
152.5°	406.5	406.2	405.9	405.6	405.2	405.1	405.3	405.5	405.6	405.8	405.9
155°	416.5	416.0	415.6	415.1	414.7	414.5	414.7	414.8	415.0	415.1	415.4
157.5°	424.1	423.9	423.6	423.3	423.1	422.9	422.9	423.0	423.0	423.0	423.2
160°	429.4	429.0	428.6	428.1	427.7	427.5	427.5	427.6	427.7	427.8	428.1
162.5°	433.8	433.3	432.8	432.3	432.0	431.8	431.9	431.9	432.0	432.1	432.4
165°	439.4	439.0	438.6	438.1	437.7	437.5	437.5	437.6	437.7	437.8	438.2
167.5°	443.7	443.3	442.8	442.3	441.9	441.7	441.8	441.9	442.0	442.0	442.5
170°	446.1	445.6	445.1	444.6	444.0	443.8	443.9	443.9	444.0	444.1	444.7
172.5°	447.7	447.2	446.7	446.2	445.6	445.4	445.5	445.7	445.8	446.0	446.5
175°	449.4	449.0	448.6	448.1	447.7	447.5	447.5	447.6	447.7	447.8	448.4
177.5°	450.3	449.9	449.5	449.2	448.8	448.7	448.7	448.8	448.8	448.9	449.3
180°	449.4	449.4	449.4	449.4	449.4	449.4	449.4	449.4	449.4	449.4	449.4



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3	1237.3
2.5°	1233.8	1235.5	1237.2	1238.0	1237.8	1237.7	1237.5	1237.3
5°	1227.6	1229.5	1231.4	1232.3	1232.1	1231.9	1231.6	1231.4
7.5°	1215.1	1217.0	1218.9	1219.7	1219.6	1219.4	1219.1	1218.9
10°	1204.6	1206.4	1208.1	1208.8	1208.6	1208.3	1208.2	1208.0
12.5°	1190.5	1191.9	1193.4	1194.0	1194.0	1193.9	1193.9	1193.8
15°	1166.1	1167.2	1168.3	1168.8	1168.8	1168.8	1168.8	1168.8
17.5°	1137.6	1139.0	1140.3	1140.5	1139.3	1138.3	1137.2	1136.1
20°	1116.1	1117.6	1119.1	1119.3	1118.2	1117.1	1116.1	1114.9
22.5°	1091.5	1092.5	1093.5	1093.6	1092.9	1092.1	1091.4	1090.7
25°	1052.2	1052.6	1053.1	1052.9	1052.3	1051.7	1051.0	1050.4
27.5°	1011.0	1011.1	1011.2	1010.9	1010.2	1009.6	1008.9	1008.2
30°	981.0	980.5	980.1	979.6	978.9	978.3	977.6	976.9
32.5°	950.5	949.7	949.0	947.9	946.8	945.6	944.4	943.3
35°	903.3	902.2	901.2	899.8	898.0	896.3	894.5	892.8
37.5°	853.7	852.1	850.5	849.1	848.2	847.2	846.2	845.2
40°	819.4	817.4	815.4	814.1	813.4	812.8	812.2	811.5
42.5°	785.2	783.4	781.7	780.2	779.3	778.3	777.2	776.3
45°	734.8	732.2	729.6	727.9	727.4	726.7	726.0	725.4
47.5°	681.6	679.0	676.4	674.3	672.8	671.3	669.7	668.2
50°	645.3	642.4	639.6	637.4	635.9	634.4	632.9	631.4
52.5°	610.0	607.5	605.0	602.9	601.2	599.6	597.9	596.2
55°	555.1	553.1	551.1	549.4	547.8	546.3	544.8	543.3
57.5°	500.5	497.9	495.4	493.7	492.9	492.1	491.3	490.4
60°	463.5	461.4	459.2	457.3	455.8	454.3	452.8	451.3
62.5°	428.0	425.7	423.3	421.5	420.4	419.1	418.0	416.8
65°	372.0	370.0	368.1	366.6	365.8	365.0	364.0	363.2
67.5°	318.6	316.9	315.3	314.1	313.7	313.1	312.5	312.1
70°	283.2	281.9	280.6	279.6	278.6	277.8	276.9	276.1
72.5°	250.0	248.5	247.0	245.8	245.0	244.1	243.3	242.3
75°	198.4	197.7	197.1	196.3	195.5	194.5	193.7	192.8
77.5°	151.2	150.7	150.3	149.9	149.2	148.6	148.1	147.4
80°	120.9	120.7	120.6	120.2	119.8	119.3	118.9	118.5
82.5°	92.4	92.0	91.6	91.4	91.3	91.2	91.1	91.0
85°	54.4	54.2	53.9	53.6	53.2	52.8	52.3	51.8
87.5°	21.6	21.7	21.7	21.6	21.3	21.0	20.7	20.4
90°	6.0	6.4	6.8	7.1	7.4	7.5	7.7	8.0
92.5°	6.0	6.4	6.8	7.1	7.2	7.3	7.4	7.4
95°	6.0	6.4	6.8	7.0	7.0	7.0	7.0	7.0
97.5°	12.3	10.1	8.0	7.0	7.0	7.0	7.0	7.0
100°	35.9	24.9	13.9	8.2	7.9	7.6	7.3	7.0
102.5°	69.7	67.7	65.6	62.0	57.0	52.0	46.9	41.9
105°	99.2	99.2	99.2	99.2	99.2	99.1	99.1	99.0
107.5°	125.7	125.7	125.7	125.6	125.5	125.2	125.0	124.7
110°	142.8	142.6	142.4	142.3	142.4	142.4	142.5	142.6



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CATALOG NUMBER: S125DIP-S850D365U830-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	159.8	159.5	159.2	159.0	158.9	158.8	158.7	158.6
115°	185.3	185.0	184.7	184.4	183.9	183.5	183.0	182.6
117.5°	210.0	209.6	209.2	209.0	208.8	208.6	208.4	208.2
120°	225.9	225.7	225.6	225.4	225.0	224.6	224.2	223.9
122.5°	241.1	241.0	240.8	240.5	240.1	239.7	239.2	238.8
125°	263.3	263.0	262.7	262.4	262.2	262.0	261.7	261.6
127.5°	283.5	283.3	283.2	282.9	282.3	281.7	281.3	280.7
130°	296.7	296.5	296.3	296.0	295.7	295.3	294.9	294.5
132.5°	309.1	309.1	309.0	308.8	308.4	308.0	307.6	307.4
135°	327.3	327.1	326.9	326.6	326.2	325.7	325.3	324.8
137.5°	344.1	344.1	344.1	343.9	343.6	343.2	342.8	342.4
140°	354.5	354.6	354.8	354.6	354.2	353.7	353.3	352.8
142.5°	364.6	364.7	364.7	364.5	364.0	363.5	363.2	362.7
145°	379.0	379.0	379.1	378.9	378.5	378.1	377.6	377.1
147.5°	391.2	391.3	391.4	391.2	390.7	390.1	389.6	389.1
150°	399.1	399.3	399.4	399.2	398.6	398.0	397.4	396.8
152.5°	406.0	406.1	406.3	406.1	405.6	405.1	404.5	404.0
155°	415.6	415.8	416.0	415.8	415.3	414.6	414.1	413.5
157.5°	423.5	423.7	424.0	423.8	423.2	422.5	422.0	421.4
160°	428.4	428.7	429.0	428.9	428.2	427.6	427.1	426.5
162.5°	432.9	433.3	433.8	433.6	432.9	432.3	431.7	431.0
165°	438.7	439.1	439.6	439.5	438.9	438.3	437.7	437.2
167.5°	443.1	443.6	444.1	444.0	443.4	442.7	442.1	441.4
170°	445.3	445.9	446.5	446.5	445.8	445.2	444.4	443.7
172.5°	447.0	447.6	448.1	448.1	447.4	446.7	446.0	445.4
175°	448.9	449.6	450.2	450.2	449.4	448.7	448.1	447.4
177.5°	449.8	450.2	450.5	450.5	450.1	449.6	449.1	448.7
180°	449.4	449.4	449.4	449.4	449.4	449.4	449.4	449.4

(END OF REPORT)