

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: P333220-930

Luminaire Tested: **S125DIP-S850D590U930-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333220-930
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-S850D590U930-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 590 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4713.3 lumens
Efficiency: N/A
Efficacy: 117.0 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: General Diffuse

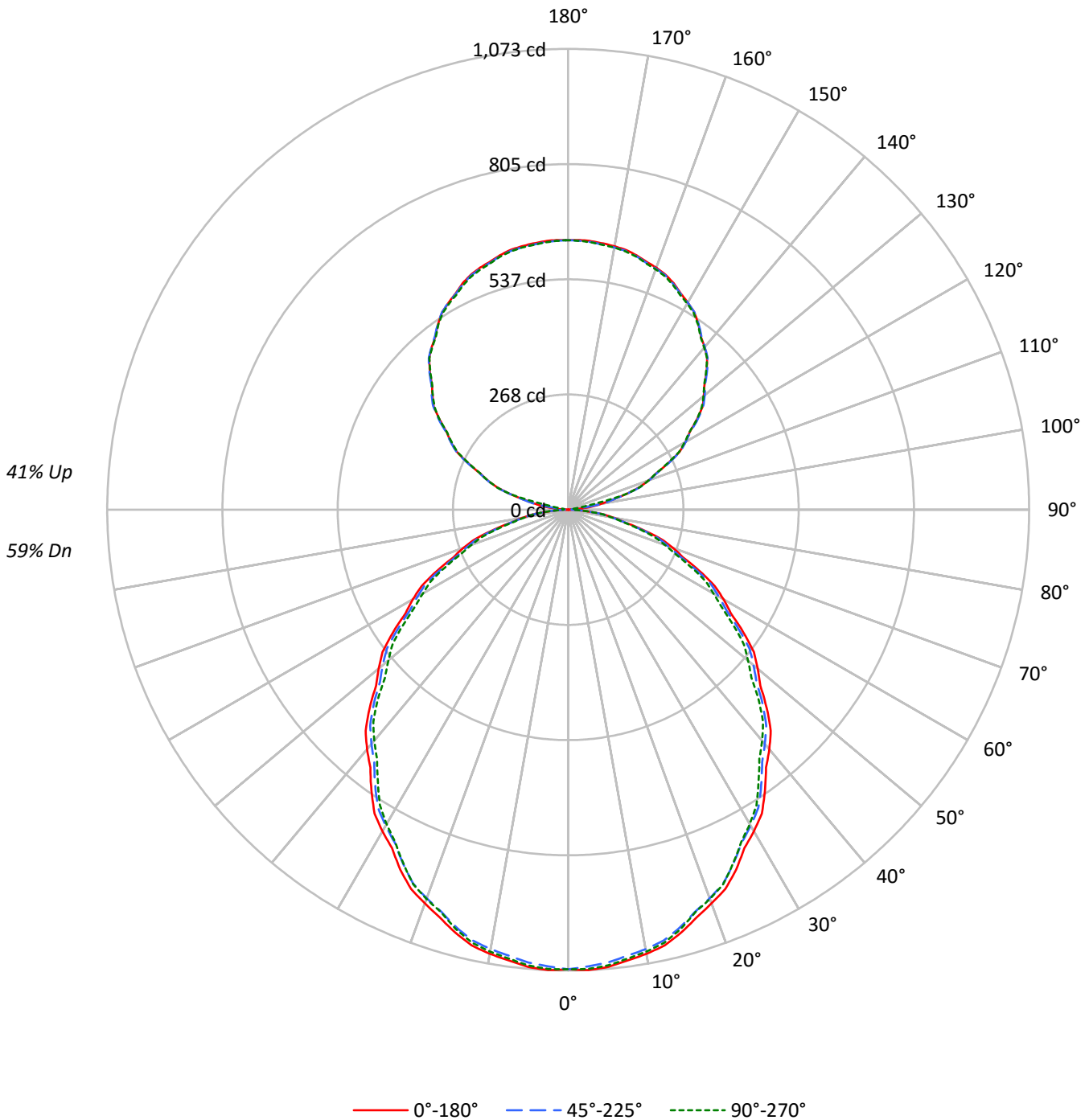
Input Watts (W): 40.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	109	109	109	102	102	102	102	88	88	88	76	76	76	64	64	64	59																				
1	100	95	91	88	93	89	86	83	77	75	73	67	65	63	57	56	54	50																				
2	91	83	77	72	84	78	72	68	68	64	60	59	55	53	50	48	46	42																				
3	83	73	66	60	77	69	62	57	60	55	50	52	48	45	44	41	39	35																				
4	76	65	57	51	70	61	54	48	53	47	43	46	42	38	40	36	33	30																				
5	70	58	49	43	65	54	47	41	48	42	37	41	37	33	36	32	29	26																				
6	64	52	44	38	60	49	41	36	43	37	32	37	33	29	32	29	26	23																				
7	59	47	39	33	55	44	37	32	39	33	29	34	29	26	30	26	23	20																				
8	55	43	35	29	51	40	33	28	36	30	25	31	26	23	27	23	20	18																				
9	51	39	31	26	48	37	30	25	33	27	23	29	24	21	25	21	18	16																				
10	48	36	28	24	45	34	27	23	30	24	21	27	22	19	23	20	17	15																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6912	6912	6912
5°	6928	6862	6906
10°	6885	6813	6852
15°	6811	6731	6760
20°	6704	6616	6628
25°	6589	6480	6475
30°	6447	6334	6302
35°	6296	6176	6089
40°	6139	6004	5918
45°	5971	5847	5731
50°	5785	5657	5488
55°	5606	5444	5291
60°	5391	5227	5043
65°	5136	4968	4800
70°	4893	4670	4509
75°	4457	4312	4162
80°	3968	3905	3812
85°	3453	3520	3320



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.9	2.1
10°-20°	285.1	6.0
20°-30°	420.9	8.9
30°-40°	491.1	10.4
40°-50°	493.3	10.5
50°-60°	433.0	9.2
60°-70°	322.6	6.8
70°-80°	184.5	3.9
80°-90°	55.0	1.2
90°-100°	22.8	0.5
100°-110°	140.5	3.0
110°-120°	254.9	5.4
120°-130°	327.1	6.9
130°-140°	351.8	7.5
140°-150°	330.3	7.0
150°-160°	267.1	5.7
160°-170°	172.8	3.7
170°-180°	59.6	1.3
0°-30°	806.9	17.1
0°-40°	1298.0	27.5
0°-60°	2224.3	47.2
0°-90°	2786.4	59.1
90°-120°	418.2	8.9
90°-150°	1427.4	30.3
90°-180°	1927.0	40.9
0°-180°	4713.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1070	1070	1070	1070	1070	
5°	1069	1066	1058	1066	1065	101
15°	1019	1016	1007	1011	1011	287
25°	925	920	909	911	909	425
35°	798	795	783	779	772	499
45°	654	650	640	630	628	504
55°	498	495	484	476	470	444
65°	336	334	325	318	314	333
75°	179	177	173	170	167	190
85°	47	47	48	46	45	52
90°	0	4	7	10	11	4
95°	26	24	7	10	10	34
105°	137	138	139	139	138	145
115°	257	259	260	258	255	254
125°	365	368	368	367	365	326
135°	455	458	457	456	454	351
145°	528	529	529	529	526	330
155°	582	579	580	581	577	268
165°	614	611	611	614	610	173
175°	628	625	625	628	625	60
180°	628	628	628	628	628	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2
2.5°	1073.0	1072.5	1072.1	1071.6	1071.1	1070.2	1068.7	1067.2	1065.7	1064.2	1065.7
5°	1068.6	1068.2	1067.8	1067.5	1067.1	1065.9	1064.0	1062.2	1060.3	1058.4	1060.1
7.5°	1058.7	1058.4	1058.0	1057.6	1057.3	1056.1	1053.9	1051.9	1049.9	1047.7	1049.4
10°	1049.9	1049.6	1049.2	1048.8	1048.5	1047.3	1045.1	1043.1	1041.1	1038.9	1040.5
12.5°	1039.1	1038.4	1037.8	1037.1	1036.4	1035.1	1033.2	1031.3	1029.3	1027.4	1028.7
15°	1018.6	1018.1	1017.5	1016.9	1016.4	1015.0	1013.0	1010.9	1008.9	1006.7	1007.7
17.5°	995.1	994.3	993.4	992.6	991.8	990.3	988.1	986.0	983.8	981.7	982.8
20°	975.4	975.1	974.7	974.3	974.0	972.5	970.0	967.6	965.2	962.7	964.1
22.5°	955.8	955.1	954.5	953.7	953.1	951.6	949.3	947.0	944.7	942.4	943.3
25°	924.6	923.7	922.8	921.8	920.9	919.2	916.7	914.3	911.8	909.4	909.8
27.5°	888.2	887.7	887.1	886.6	886.0	884.4	881.9	879.4	876.9	874.3	874.4
30°	864.5	864.0	863.4	862.8	862.3	860.5	857.8	854.9	852.1	849.3	848.9
32.5°	838.8	837.9	837.1	836.2	835.4	833.6	831.1	828.6	826.1	823.5	822.9
35°	798.5	797.7	797.0	796.2	795.5	793.8	791.2	788.5	785.9	783.3	782.3
37.5°	756.7	755.7	754.7	753.8	752.8	751.1	748.7	746.2	743.7	741.3	739.8
40°	728.2	727.2	726.4	725.4	724.4	722.7	720.0	717.4	714.8	712.1	710.5
42.5°	697.7	696.9	696.1	695.4	694.6	692.8	690.2	687.5	684.9	682.3	680.8
45°	653.7	652.9	652.2	651.4	650.7	649.1	646.9	644.7	642.4	640.2	637.9
47.5°	606.3	606.3	606.3	606.3	606.4	605.1	602.3	599.7	597.0	594.3	591.9
50°	575.8	575.2	574.6	574.1	573.6	572.1	569.9	567.6	565.3	563.0	560.6
52.5°	544.6	544.2	543.8	543.4	543.0	541.5	539.2	536.7	534.3	531.9	529.8
55°	497.9	497.3	496.8	496.2	495.6	494.0	491.4	488.8	486.1	483.5	481.8
57.5°	448.6	448.3	448.0	447.7	447.4	446.1	443.9	441.7	439.4	437.2	435.0
60°	417.4	416.7	416.0	415.2	414.4	413.0	410.9	408.9	406.8	404.7	402.8
62.5°	384.9	384.3	383.8	383.1	382.5	381.3	379.6	377.8	376.0	374.2	372.3
65°	336.1	335.7	335.4	335.0	334.7	333.5	331.3	329.3	327.2	325.1	323.4
67.5°	288.9	288.1	287.3	286.5	285.8	284.5	283.1	281.5	280.0	278.4	277.0
70°	259.1	258.1	257.2	256.2	255.4	254.0	252.3	250.6	248.9	247.3	246.1
72.5°	226.6	225.9	225.3	224.7	224.0	223.1	222.1	220.9	219.9	218.8	217.5
75°	178.6	178.3	177.9	177.6	177.2	176.5	175.5	174.6	173.7	172.8	172.2
77.5°	134.4	134.3	134.2	134.0	133.9	133.5	133.0	132.5	131.9	131.4	131.1
80°	106.7	106.7	106.7	106.7	106.7	106.5	106.2	105.7	105.3	105.0	104.8
82.5°	82.3	82.0	81.7	81.4	81.1	80.9	80.8	80.8	80.7	80.6	80.3
85°	46.6	46.8	47.0	47.1	47.3	47.5	47.5	47.5	47.5	47.5	47.2
87.5°	18.3	18.5	18.8	18.9	19.1	19.2	19.1	19.1	19.1	19.1	19.2
90°	0.5	1.3	2.1	2.9	3.8	4.6	5.3	6.0	6.7	7.4	8.0
92.5°	7.2	6.6	6.0	5.5	4.8	4.9	5.5	6.2	6.8	7.4	8.0
95°	26.5	26.2	25.9	25.6	25.3	23.2	19.2	15.3	11.3	7.4	8.0
97.5°	55.4	55.9	56.5	57.0	57.6	54.0	46.2	38.4	30.7	22.9	20.0
100°	77.7	78.0	78.3	78.6	78.9	79.2	79.7	80.1	80.6	81.0	65.6
102.5°	100.4	100.8	101.2	101.6	101.9	102.2	102.5	102.8	103.1	103.3	100.4
105°	136.7	137.1	137.6	138.0	138.4	138.6	138.6	138.6	138.6	138.6	138.6
107.5°	174.6	174.6	174.6	174.6	174.6	174.6	174.8	175.0	175.3	175.5	175.5
110°	199.1	199.1	199.1	199.1	199.1	199.2	199.4	199.6	199.8	200.0	199.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	222.2	222.4	222.7	222.9	223.1	223.3	223.5	223.6	223.7	223.8	223.5
115°	256.7	257.3	257.8	258.3	258.9	259.2	259.3	259.3	259.4	259.6	259.2
117.5°	292.6	292.5	292.5	292.5	292.5	292.7	293.1	293.5	293.8	294.2	293.8
120°	315.0	314.8	314.7	314.6	314.5	314.6	315.0	315.2	315.5	315.8	315.6
122.5°	334.6	335.0	335.4	335.8	336.2	336.5	336.6	336.8	336.9	337.0	336.9
125°	365.2	365.9	366.6	367.3	368.0	368.4	368.4	368.4	368.4	368.4	368.0
127.5°	394.3	394.8	395.3	395.8	396.3	396.6	396.5	396.5	396.4	396.3	396.1
130°	412.1	412.6	413.2	413.7	414.2	414.5	414.6	414.7	414.8	414.9	414.6
132.5°	430.0	430.6	431.2	431.8	432.4	432.6	432.4	432.1	431.9	431.7	431.6
135°	455.4	456.0	456.6	457.2	457.9	458.1	457.9	457.6	457.5	457.2	457.1
137.5°	478.7	479.3	479.8	480.4	480.9	481.1	480.9	480.7	480.5	480.3	480.4
140°	494.0	494.2	494.4	494.6	494.8	494.9	494.8	494.6	494.6	494.5	494.6
142.5°	507.8	507.9	508.0	508.2	508.3	508.4	508.6	508.7	508.8	509.0	509.0
145°	528.0	528.2	528.4	528.6	528.8	528.9	528.9	528.9	528.9	528.9	529.0
147.5°	545.6	545.6	545.5	545.5	545.4	545.5	545.6	545.8	545.8	546.0	546.2
150°	556.8	556.6	556.4	556.2	556.0	556.0	556.2	556.4	556.6	556.8	557.0
152.5°	567.6	567.1	566.7	566.2	565.7	565.7	565.8	566.1	566.2	566.5	566.7
155°	581.5	580.8	580.2	579.6	578.9	578.8	578.9	579.2	579.4	579.6	579.9
157.5°	592.2	591.7	591.4	591.0	590.7	590.5	590.5	590.5	590.5	590.6	590.9
160°	599.6	599.0	598.3	597.7	597.1	596.9	597.0	597.0	597.1	597.3	597.7
162.5°	605.5	605.0	604.3	603.6	603.1	602.8	602.9	603.0	603.1	603.2	603.8
165°	613.5	612.9	612.3	611.7	611.1	610.8	610.9	611.0	611.1	611.2	611.8
167.5°	619.5	618.9	618.2	617.6	616.9	616.7	616.8	616.9	616.9	617.1	617.8
170°	622.9	622.2	621.4	620.7	620.0	619.6	619.7	619.9	620.0	620.0	620.9
172.5°	625.1	624.4	623.6	622.9	622.2	621.9	622.1	622.3	622.5	622.6	623.4
175°	627.5	626.9	626.2	625.7	625.0	624.8	624.8	625.0	625.1	625.2	626.0
177.5°	628.6	628.1	627.6	627.1	626.6	626.4	626.5	626.6	626.6	626.7	627.4
180°	627.5	627.5	627.5	627.5	627.5	627.5	627.5	627.5	627.5	627.5	627.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2	1070.2
2.5°	1067.2	1068.7	1070.2	1070.9	1070.7	1070.6	1070.4	1070.2
5°	1061.8	1063.5	1065.2	1065.9	1065.8	1065.6	1065.4	1065.2
7.5°	1051.1	1052.7	1054.3	1055.1	1054.9	1054.8	1054.5	1054.3
10°	1042.0	1043.5	1045.0	1045.6	1045.5	1045.2	1045.1	1044.9
12.5°	1029.8	1031.0	1032.3	1032.8	1032.8	1032.7	1032.7	1032.7
15°	1008.7	1009.6	1010.6	1011.0	1011.0	1011.0	1011.0	1011.0
17.5°	984.1	985.2	986.3	986.5	985.5	984.6	983.7	982.8
20°	965.4	966.7	968.0	968.2	967.3	966.3	965.4	964.4
22.5°	944.1	945.0	945.9	946.0	945.3	944.7	944.0	943.5
25°	910.1	910.5	910.9	910.8	910.3	909.7	909.1	908.6
27.5°	874.5	874.6	874.7	874.4	873.8	873.3	872.7	872.1
30°	848.6	848.2	847.7	847.3	846.8	846.2	845.6	845.1
32.5°	822.1	821.5	820.8	819.9	819.0	817.9	816.9	816.0
35°	781.4	780.4	779.5	778.3	776.7	775.3	773.7	772.3
37.5°	738.4	737.0	735.6	734.5	733.7	732.8	732.0	731.1
40°	708.7	707.0	705.3	704.2	703.6	703.1	702.5	702.0
42.5°	679.2	677.7	676.1	674.9	674.1	673.2	672.3	671.5
45°	635.6	633.3	631.1	629.7	629.2	628.6	628.0	627.5
47.5°	589.6	587.3	585.1	583.3	582.0	580.7	579.3	578.0
50°	558.2	555.7	553.3	551.4	550.1	548.8	547.5	546.2
52.5°	527.7	525.5	523.3	521.5	520.1	518.6	517.1	515.7
55°	480.1	478.4	476.7	475.2	473.9	472.5	471.2	469.9
57.5°	432.9	430.7	428.5	427.1	426.3	425.7	424.9	424.2
60°	401.0	399.1	397.2	395.6	394.3	393.0	391.7	390.4
62.5°	370.2	368.2	366.2	364.6	363.6	362.6	361.6	360.5
65°	321.8	320.1	318.4	317.2	316.4	315.7	314.9	314.1
67.5°	275.6	274.1	272.7	271.7	271.3	270.8	270.4	269.9
70°	245.0	243.9	242.7	241.8	241.0	240.3	239.5	238.8
72.5°	216.2	215.0	213.7	212.6	211.9	211.2	210.4	209.6
75°	171.6	171.0	170.5	169.8	169.1	168.3	167.5	166.8
77.5°	130.8	130.4	130.0	129.6	129.1	128.6	128.1	127.5
80°	104.6	104.4	104.3	104.0	103.6	103.2	102.8	102.5
82.5°	79.9	79.6	79.2	79.1	79.0	78.9	78.8	78.8
85°	47.0	46.9	46.6	46.4	46.0	45.7	45.2	44.8
87.5°	19.3	19.4	19.5	19.5	19.2	19.0	18.8	18.5
90°	8.5	9.0	9.5	9.9	10.3	10.5	10.8	11.2
92.5°	8.5	9.0	9.5	9.9	9.9	10.1	10.3	10.4
95°	8.5	9.0	9.5	9.8	9.8	9.8	9.8	9.8
97.5°	17.0	14.1	11.3	9.8	9.8	9.8	9.8	9.8
100°	50.1	34.7	19.3	11.4	11.0	10.6	10.2	9.8
102.5°	97.4	94.5	91.6	86.7	79.6	72.6	65.6	58.5
105°	138.6	138.6	138.6	138.6	138.4	138.4	138.3	138.1
107.5°	175.5	175.5	175.5	175.4	175.1	174.8	174.5	174.1
110°	199.4	199.1	198.8	198.7	198.8	198.9	199.0	199.1



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CATALOG NUMBER: S125DIP-S850D590U930-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	223.1	222.7	222.3	222.0	221.8	221.7	221.6	221.4
115°	258.7	258.3	257.9	257.4	256.7	256.2	255.5	254.9
117.5°	293.2	292.6	292.1	291.7	291.5	291.1	290.9	290.7
120°	315.4	315.2	315.0	314.6	314.1	313.6	313.1	312.6
122.5°	336.6	336.5	336.2	335.8	335.3	334.6	334.0	333.5
125°	367.6	367.1	366.7	366.4	366.1	365.7	365.5	365.2
127.5°	395.8	395.7	395.4	394.9	394.1	393.4	392.6	391.8
130°	414.3	414.0	413.7	413.3	412.8	412.2	411.7	411.2
132.5°	431.5	431.5	431.5	431.1	430.6	430.1	429.6	429.1
135°	456.8	456.6	456.4	456.0	455.4	454.8	454.1	453.6
137.5°	480.4	480.5	480.5	480.2	479.7	479.2	478.7	478.1
140°	494.9	495.0	495.3	495.0	494.5	493.8	493.3	492.6
142.5°	509.1	509.1	509.2	508.8	508.3	507.6	507.0	506.4
145°	529.1	529.2	529.3	529.0	528.4	527.8	527.2	526.5
147.5°	546.3	546.4	546.5	546.2	545.4	544.7	544.0	543.2
150°	557.2	557.4	557.6	557.3	556.5	555.6	554.8	554.0
152.5°	566.9	567.1	567.3	567.0	566.3	565.6	564.8	564.0
155°	580.2	580.5	580.8	580.6	579.8	578.9	578.1	577.2
157.5°	591.3	591.6	591.9	591.7	590.8	590.0	589.1	588.3
160°	598.1	598.5	598.9	598.7	597.9	597.0	596.2	595.4
162.5°	604.4	605.0	605.5	605.4	604.5	603.6	602.7	601.7
165°	612.5	613.1	613.7	613.6	612.8	612.0	611.1	610.3
167.5°	618.6	619.3	620.0	620.0	619.1	618.1	617.2	616.2
170°	621.7	622.6	623.4	623.3	622.4	621.4	620.5	619.6
172.5°	624.1	624.9	625.7	625.6	624.6	623.7	622.7	621.8
175°	626.8	627.6	628.5	628.4	627.5	626.6	625.7	624.7
177.5°	627.9	628.5	629.1	629.0	628.4	627.7	627.0	626.4
180°	627.5	627.5	627.5	627.5	627.5	627.5	627.5	627.5

(END OF REPORT)