

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: P333218-840

Luminaire Tested: **S125DIP-S850D590U840-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333218-840
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: S125DIP-S850D590U840-4F0-1E-UDD-D1
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 590 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5380.8 lumens
Efficiency: N/A
Efficacy: 133.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')
CIE Type: General Diffuse

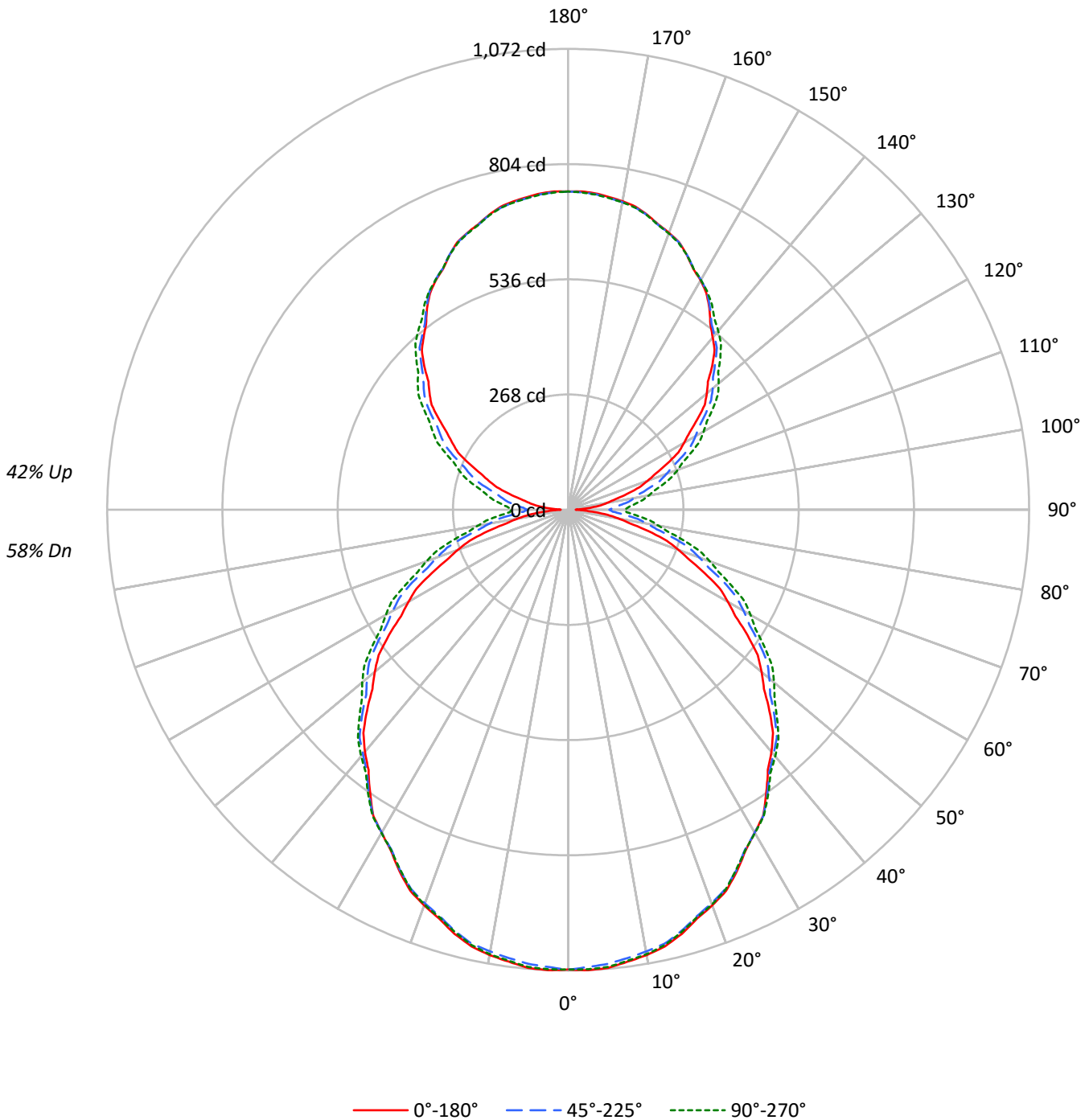
Input Watts (W): 40.3
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P333218-840

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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	99	94	90	86	92	88	84	80	76	73	70	65	63	61	55	53	52	47
2	90	82	75	69	83	76	70	65	66	61	58	56	53	50	48	45	43	39
3	81	71	64	57	75	67	60	54	58	52	48	50	45	42	42	39	36	32
4	74	63	55	48	69	59	52	46	51	45	41	44	39	36	37	34	31	28
5	68	56	48	41	63	53	45	39	46	40	35	39	35	31	34	30	27	24
6	63	50	42	36	58	47	40	34	41	35	30	36	31	27	30	27	24	21
7	58	45	37	31	54	43	35	30	37	31	27	32	27	24	28	24	21	18
8	54	41	33	28	50	39	31	26	34	28	24	30	25	21	25	22	19	16
9	50	38	30	25	47	35	28	24	31	25	21	27	22	19	23	20	17	15
10	47	35	27	22	44	33	26	21	29	23	19	25	20	17	22	18	15	13

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6909	6909	6909
5°	6923	6782	6803
10°	6874	6661	6651
15°	6793	6515	6456
20°	6682	6336	6262
25°	6551	6144	6023
30°	6392	5934	5806
35°	6242	5740	5607
40°	6092	5535	5406
45°	5921	5360	5229
50°	5758	5171	5072
55°	5562	4992	4887
60°	5348	4788	4699
65°	5124	4575	4486
70°	4871	4283	4269
75°	4469	4001	4001
80°	3945	3661	3710
85°	3453	3433	3619



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.2	1.9
10°-20°	287.2	5.3
20°-30°	427.1	7.9
30°-40°	505.9	9.4
40°-50°	523.0	9.7
50°-60°	481.8	9.0
60°-70°	389.5	7.2
70°-80°	260.8	4.8
80°-90°	136.9	2.5
90°-100°	125.5	2.3
100°-110°	202.4	3.8
110°-120°	285.5	5.3
120°-130°	347.7	6.5
130°-140°	375.0	7.0
140°-150°	360.3	6.7
150°-160°	301.1	5.6
160°-170°	200.1	3.7
170°-180°	70.0	1.3
0°-30°	815.4	15.2
0°-40°	1321.2	24.6
0°-60°	2326.0	43.2
0°-90°	3113.2	57.9
90°-120°	613.4	11.4
90°-150°	1696.4	31.5
90°-180°	2268.0	42.1
0°-180°	5380.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1070	1070	1070	1070	1070	
5°	1070	1067	1060	1068	1068	101
15°	1022	1022	1015	1021	1017	288
25°	928	931	925	929	924	427
35°	803	810	808	811	811	503
45°	662	673	678	686	687	511
55°	509	526	542	553	558	455
65°	350	374	400	415	420	347
75°	193	221	254	274	280	205
85°	58	92	129	151	160	61
90°	17	56	95	121	131	13
95°	51	80	121	147	156	51
105°	141	161	195	219	229	150
115°	255	265	293	310	317	252
125°	367	370	390	406	411	328
135°	473	476	484	497	500	365
145°	572	573	575	580	583	357
155°	653	653	654	656	653	301
165°	710	709	710	712	709	200
175°	738	736	736	739	736	70
180°	740	740	740	740	740	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8
2.5°	1072.3	1072.0	1071.6	1071.2	1070.8	1070.0	1068.6	1067.3	1066.0	1064.7	1066.0
5°	1069.8	1069.3	1068.8	1068.3	1067.9	1066.8	1065.2	1063.6	1062.0	1060.4	1062.2
7.5°	1060.4	1060.2	1060.0	1059.8	1059.6	1058.6	1057.0	1055.3	1053.6	1052.0	1053.6
10°	1052.0	1052.0	1052.0	1052.0	1052.0	1051.1	1049.1	1047.3	1045.4	1043.6	1045.2
12.5°	1040.2	1040.4	1040.6	1040.8	1041.0	1040.3	1038.8	1037.3	1035.8	1034.3	1035.6
15°	1021.6	1021.8	1022.0	1022.2	1022.5	1021.8	1020.2	1018.5	1016.8	1015.2	1016.6
17.5°	997.2	997.6	998.2	998.6	999.1	998.5	996.8	995.2	993.6	992.0	993.0
20°	979.6	980.1	980.5	981.0	981.5	980.9	979.3	977.7	975.9	974.3	975.0
22.5°	959.5	960.3	961.1	962.0	962.8	962.3	960.5	958.7	956.8	955.0	955.9
25°	928.2	928.9	929.6	930.3	931.0	930.6	929.3	927.9	926.5	925.0	925.9
27.5°	893.3	894.4	895.4	896.5	897.5	897.2	895.6	894.0	892.4	890.9	891.5
30°	867.4	868.8	870.2	871.5	872.9	872.9	871.5	870.2	868.8	867.4	867.9
32.5°	843.8	845.1	846.3	847.5	848.7	848.8	847.8	846.8	845.8	844.8	845.2
35°	803.3	805.1	806.7	808.3	809.9	810.4	809.7	809.0	808.3	807.6	808.3
37.5°	762.9	764.4	765.9	767.4	768.9	769.5	769.2	769.0	768.8	768.6	769.5
40°	735.2	737.1	738.9	740.8	742.7	743.5	743.3	743.1	742.8	742.6	743.5
42.5°	705.0	707.4	709.8	712.3	714.7	716.2	716.7	717.2	717.7	718.2	719.3
45°	661.8	664.4	666.9	669.4	672.1	673.9	675.1	676.2	677.4	678.5	680.2
47.5°	617.5	620.0	622.3	624.7	627.0	629.2	631.3	633.3	635.2	637.2	639.6
50°	587.3	589.9	592.5	595.0	597.5	600.2	602.7	605.3	607.8	610.4	613.0
52.5°	555.4	558.6	561.7	564.8	567.9	571.1	574.2	577.3	580.5	583.6	586.3
55°	508.7	512.4	516.1	519.9	523.6	527.4	531.1	534.8	538.5	542.2	544.8
57.5°	460.8	465.3	469.8	474.2	478.8	483.1	487.5	491.7	495.9	500.3	503.2
60°	429.0	433.6	438.3	442.9	447.6	452.3	457.0	461.6	466.3	470.9	474.4
62.5°	397.9	402.5	407.3	411.9	416.6	421.4	426.5	431.5	436.5	441.5	445.5
65°	350.3	355.7	361.0	366.4	371.7	377.2	382.8	388.4	394.0	399.6	403.1
67.5°	305.4	310.6	315.8	320.9	326.1	331.5	337.2	343.0	348.6	354.3	358.5
70°	272.7	278.0	283.4	288.8	294.2	299.8	305.9	311.9	318.0	324.1	328.5
72.5°	240.9	246.3	251.9	257.4	263.0	269.0	275.7	282.4	288.9	295.6	300.3
75°	193.0	199.0	205.1	211.2	217.2	224.0	231.5	238.9	246.3	253.8	258.4
77.5°	147.0	154.0	161.1	168.0	175.0	182.1	189.2	196.4	203.6	210.9	215.9
80°	118.6	125.5	132.5	139.5	146.5	153.9	161.9	169.8	177.7	185.6	190.8
82.5°	92.5	99.9	107.2	114.6	122.0	129.7	137.8	145.9	154.0	162.2	167.1
85°	57.7	65.3	73.1	80.8	88.5	96.3	104.5	112.7	120.9	129.0	134.1
87.5°	32.8	40.5	48.2	55.8	63.5	71.4	79.5	87.6	95.6	103.8	109.3
90°	17.4	25.9	34.3	42.8	51.3	60.0	68.8	77.6	86.4	95.2	101.2
92.5°	29.1	36.7	44.2	51.9	59.5	68.0	77.2	86.3	95.5	104.7	110.8
95°	51.1	57.4	63.7	70.0	76.3	84.1	93.3	102.5	111.7	120.9	126.9
97.5°	74.6	80.2	85.7	91.3	96.8	104.3	113.7	123.1	132.5	142.0	147.6
100°	92.2	97.0	102.0	106.8	111.8	118.8	127.9	137.0	146.1	155.3	161.3
102.5°	111.2	116.2	121.3	126.2	131.3	137.8	146.0	154.1	162.2	170.4	176.3
105°	140.8	145.1	149.6	153.9	158.2	164.3	172.1	179.9	187.6	195.4	200.8
107.5°	173.6	177.4	181.3	185.1	188.8	194.4	201.8	209.0	216.3	223.7	228.6
110°	196.3	199.8	203.2	206.6	210.1	215.2	222.2	229.0	235.9	242.9	247.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	220.3	222.9	225.4	228.0	230.6	235.2	242.1	248.9	255.7	262.6	267.0
115°	254.6	256.7	258.9	261.1	263.2	267.4	273.7	280.0	286.3	292.7	296.7
117.5°	289.0	290.3	291.6	293.0	294.3	297.9	303.9	309.8	315.8	321.7	325.8
120°	311.1	312.5	313.9	315.2	316.5	319.9	325.4	330.9	336.4	341.8	345.9
122.5°	334.3	334.9	335.4	336.0	336.5	339.5	345.1	350.5	356.1	361.5	365.3
125°	366.6	367.1	367.6	368.2	368.7	371.3	376.2	380.9	385.8	390.5	393.9
127.5°	400.1	400.3	400.5	400.7	400.9	402.9	407.0	410.9	415.0	418.9	422.2
130°	420.8	421.2	421.6	422.0	422.4	424.4	427.9	431.4	434.9	438.5	441.6
132.5°	440.7	441.7	442.7	443.7	444.7	446.5	448.9	451.4	453.8	456.4	459.5
135°	473.3	473.9	474.4	474.9	475.4	476.7	478.4	480.2	481.9	483.6	486.7
137.5°	504.0	504.5	505.1	505.6	506.2	507.1	508.2	509.2	510.3	511.4	514.2
140°	523.0	523.6	524.3	524.9	525.5	526.1	526.8	527.5	528.1	528.7	531.5
142.5°	542.8	543.2	543.5	543.9	544.2	544.6	545.2	545.7	546.2	546.8	549.2
145°	572.0	572.3	572.5	572.8	573.1	573.4	573.8	574.2	574.6	574.9	576.1
147.5°	597.8	598.1	598.4	598.7	599.1	599.3	599.6	600.0	600.3	600.6	601.2
150°	615.8	615.7	615.6	615.5	615.3	615.5	616.0	616.5	617.0	617.5	617.5
152.5°	630.6	630.8	631.0	631.2	631.3	631.5	631.7	631.9	632.1	632.4	632.7
155°	653.3	653.3	653.3	653.3	653.3	653.4	653.5	653.6	653.8	653.9	654.4
157.5°	673.6	673.3	673.0	672.8	672.5	672.4	672.5	672.7	672.8	672.9	673.4
160°	685.6	685.2	684.8	684.4	684.0	683.9	684.0	684.2	684.3	684.4	684.9
162.5°	696.2	695.9	695.6	695.3	695.0	694.9	694.9	695.0	695.0	695.0	695.6
165°	710.3	710.0	709.8	709.5	709.3	709.2	709.3	709.5	709.6	709.7	710.2
167.5°	722.4	721.9	721.2	720.7	720.2	720.0	720.0	720.0	720.0	720.0	720.7
170°	728.7	728.2	727.7	727.2	726.7	726.5	726.5	726.5	726.5	726.5	727.2
172.5°	733.4	732.9	732.4	731.8	731.3	731.0	731.0	731.0	731.0	731.0	731.8
175°	738.5	738.0	737.5	737.0	736.5	736.3	736.3	736.3	736.3	736.3	737.0
177.5°	741.2	740.8	740.4	740.0	739.5	739.3	739.2	739.1	739.0	738.9	739.5
180°	740.3	740.3	740.3	740.3	740.3	740.3	740.3	740.3	740.3	740.3	740.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8	1069.8
2.5°	1067.3	1068.6	1070.0	1070.6	1070.4	1070.2	1070.0	1069.8
5°	1064.1	1065.9	1067.8	1068.6	1068.3	1068.1	1067.9	1067.7
7.5°	1055.2	1056.8	1058.4	1059.1	1058.9	1058.7	1058.4	1058.2
10°	1046.8	1048.4	1050.1	1050.8	1050.6	1050.4	1050.1	1049.9
12.5°	1036.8	1038.1	1039.4	1039.7	1039.1	1038.4	1037.8	1037.2
15°	1018.0	1019.5	1020.9	1021.1	1020.2	1019.2	1018.2	1017.3
17.5°	994.1	995.2	996.2	996.5	995.9	995.4	994.8	994.3
20°	975.7	976.4	977.1	977.4	977.4	977.4	977.4	977.4
22.5°	956.8	957.7	958.6	958.8	958.2	957.7	957.0	956.5
25°	927.0	927.9	928.8	928.7	927.5	926.3	925.1	924.0
27.5°	892.1	892.8	893.4	893.6	893.1	892.7	892.3	891.9
30°	868.3	868.8	869.2	869.4	869.1	868.9	868.7	868.4
32.5°	845.7	846.1	846.6	846.7	846.5	846.3	846.0	845.8
35°	809.0	809.7	810.4	810.7	810.7	810.7	810.7	810.7
37.5°	770.4	771.3	772.2	772.7	772.6	772.5	772.4	772.3
40°	744.4	745.4	746.3	747.0	747.4	747.9	748.4	748.8
42.5°	720.4	721.5	722.7	723.3	723.4	723.5	723.6	723.7
45°	681.9	683.5	685.1	686.0	686.3	686.5	686.7	687.0
47.5°	642.0	644.4	646.7	648.2	648.7	649.2	649.7	650.3
50°	615.5	618.1	620.7	622.3	623.0	623.7	624.4	625.1
52.5°	589.1	591.8	594.5	596.2	596.7	597.2	597.7	598.2
55°	547.3	550.0	552.5	554.2	555.1	556.1	557.0	558.0
57.5°	506.1	509.1	512.0	513.8	514.5	515.2	515.9	516.6
60°	477.9	481.4	484.9	487.0	487.7	488.4	489.1	489.8
62.5°	449.3	453.1	457.1	459.4	460.3	461.2	462.0	462.9
65°	406.6	410.1	413.5	415.8	416.8	417.7	418.6	419.5
67.5°	362.7	367.0	371.2	374.0	375.2	376.4	377.6	378.8
70°	333.0	337.4	341.8	344.7	346.1	347.5	348.9	350.3
72.5°	305.2	309.9	314.8	317.7	318.7	319.7	320.7	321.7
75°	263.2	267.8	272.5	275.4	276.5	277.7	278.8	280.0
77.5°	221.1	226.2	231.4	234.4	235.3	236.2	237.1	238.1
80°	195.9	201.1	206.1	209.1	210.2	211.1	212.0	212.9
82.5°	172.0	176.9	181.9	185.2	186.9	188.5	190.3	192.0
85°	139.3	144.4	149.6	153.0	154.9	156.7	158.6	160.5
87.5°	114.7	120.3	125.7	129.4	131.1	132.8	134.5	136.1
90°	107.2	113.2	119.3	123.2	125.2	127.2	129.3	131.3
92.5°	116.8	122.8	128.9	132.8	134.7	136.6	138.6	140.5
95°	133.0	139.0	145.0	149.0	150.9	152.8	154.6	156.5
97.5°	153.4	159.2	164.9	168.6	170.4	172.1	173.9	175.6
100°	167.3	173.4	179.5	183.3	185.0	186.6	188.2	190.0
102.5°	182.3	188.2	194.2	198.0	199.9	201.6	203.3	205.1
105°	206.2	211.7	217.1	220.9	222.9	224.8	226.8	228.8
107.5°	233.7	238.6	243.7	246.8	248.2	249.6	251.1	252.6
110°	252.5	257.3	262.2	265.3	266.8	268.3	269.7	271.2



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CATALOG NUMBER: S125DIP-S850D590U840-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	271.4	275.8	280.2	283.2	284.6	286.0	287.3	288.7
115°	300.8	304.9	308.9	311.6	312.9	314.2	315.4	316.7
117.5°	329.8	334.0	338.0	340.5	341.6	342.7	343.8	344.9
120°	349.8	353.8	357.7	360.1	361.0	361.9	362.8	363.7
122.5°	368.9	372.5	376.3	378.6	379.6	380.6	381.5	382.5
125°	397.5	400.9	404.5	406.7	407.7	408.8	409.8	410.8
127.5°	425.6	428.9	432.1	434.3	435.5	436.6	437.7	438.8
130°	444.7	447.9	451.0	453.0	453.9	454.8	455.8	456.7
132.5°	462.6	465.7	468.9	470.7	471.4	472.0	472.6	473.2
135°	489.7	492.7	495.7	497.7	498.3	499.0	499.6	500.3
137.5°	517.2	520.1	523.0	524.5	524.8	525.1	525.4	525.7
140°	534.3	537.1	540.0	541.5	541.8	542.1	542.4	542.7
142.5°	551.5	553.8	556.1	557.4	557.7	558.1	558.4	558.7
145°	577.2	578.5	579.6	580.5	581.0	581.6	582.1	582.7
147.5°	601.9	602.6	603.3	603.4	602.9	602.5	602.0	601.6
150°	617.5	617.5	617.5	617.5	617.5	617.5	617.5	617.4
152.5°	633.0	633.3	633.6	633.5	633.1	632.7	632.3	631.9
155°	654.9	655.4	655.9	655.9	655.2	654.6	653.9	653.3
157.5°	673.9	674.4	674.9	674.8	673.9	673.1	672.3	671.4
160°	685.4	685.9	686.4	686.4	685.8	685.1	684.5	683.9
162.5°	696.2	696.8	697.5	697.4	696.7	695.9	695.2	694.4
165°	710.7	711.2	711.9	711.7	710.9	710.1	709.3	708.6
167.5°	721.5	722.4	723.1	723.1	722.3	721.4	720.6	719.9
170°	728.0	728.7	729.5	729.4	728.6	727.7	726.8	725.9
172.5°	732.7	733.4	734.2	734.2	733.4	732.6	731.7	730.9
175°	737.8	738.5	739.3	739.2	738.4	737.5	736.6	735.7
177.5°	740.1	740.7	741.3	741.3	740.6	739.9	739.1	738.4
180°	740.3	740.3	740.3	740.3	740.3	740.3	740.3	740.3

(END OF REPORT)