

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: P332012-940

Luminaire Tested: **S123DIP-S1000D585U940-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332012-940
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-5,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DIP-S1000D585U940-4F0-1E-UDD-D
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 585 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5833.5 lumens
Efficiency: N/A
Efficacy: 119.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.08')
CIE Type: General Diffuse

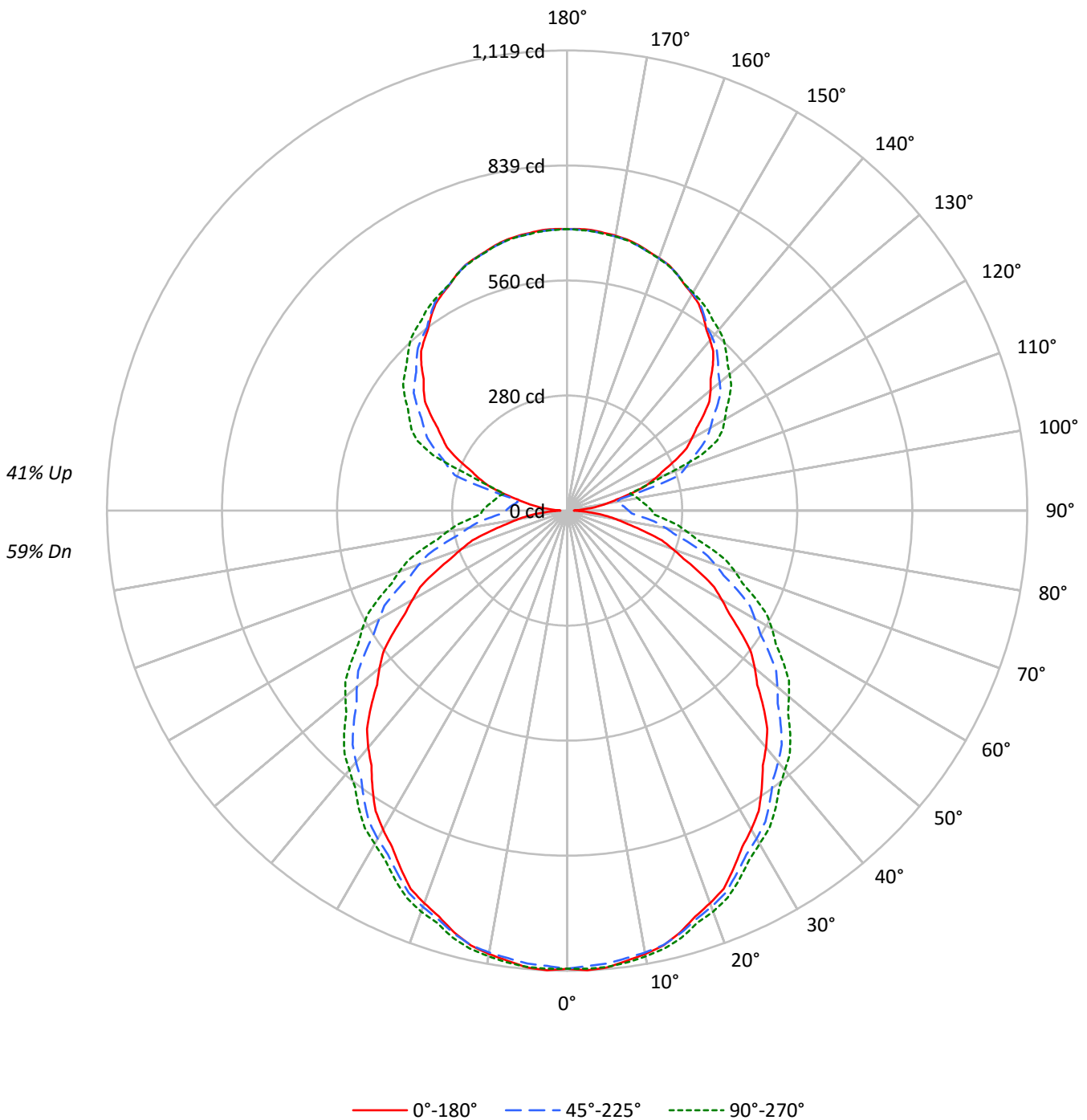
Input Watts (W): 48.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20			20			20			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	76	76	76	64	64	64	59
1	99	94	89	85	92	87	83	80	76	73	70	65	63	61	55	53	52	47
2	89	81	74	69	83	76	70	65	66	61	57	56	53	50	48	45	43	38
3	81	71	63	57	75	66	59	53	57	52	47	49	45	41	42	39	36	32
4	74	63	54	48	69	58	51	45	51	45	40	44	39	35	37	33	31	27
5	68	56	47	41	63	52	44	39	45	39	34	39	34	30	33	29	26	23
6	63	50	41	35	58	47	39	33	41	35	30	35	30	26	30	26	23	20
7	58	45	37	31	54	42	35	29	37	31	26	32	27	23	27	24	20	18
8	54	41	33	27	50	38	31	26	34	28	23	29	24	21	25	21	18	16
9	50	37	29	24	46	35	28	23	31	25	21	27	22	19	23	19	16	14
10	47	34	27	22	43	32	25	21	28	23	19	25	20	17	22	18	15	13

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11992	11992	11992
5°	12030	11690	11697
10°	11922	11421	11364
15°	11768	11114	11000
20°	11548	10767	10600
25°	11278	10365	10179
30°	10999	10002	9754
35°	10689	9620	9413
40°	10391	9273	9048
45°	10062	8938	8757
50°	9737	8608	8436
55°	9378	8270	8147
60°	9028	7928	7850
65°	8670	7563	7499
70°	8127	7150	7138
75°	7448	6679	6770
80°	6658	6216	6350
85°	5935	5899	6108



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.6	1.8
10°-20°	301.1	5.2
20°-30°	450.3	7.7
30°-40°	537.8	9.2
40°-50°	562.6	9.6
50°-60°	528.0	9.1
60°-70°	441.0	7.6
70°-80°	315.5	5.4
80°-90°	190.1	3.3
90°-100°	142.9	2.5
100°-110°	205.4	3.5
110°-120°	342.8	5.9
120°-130°	395.9	6.8
130°-140°	402.5	6.9
140°-150°	365.7	6.3
150°-160°	292.4	5.0
160°-170°	188.7	3.2
170°-180°	65.0	1.1
0°-30°	857.0	14.7
0°-40°	1394.8	23.9
0°-60°	2485.4	42.6
0°-90°	3432.0	58.8
90°-120°	691.2	11.8
90°-150°	1855.3	31.8
90°-180°	2402.0	41.2
0°-180°	5833.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1114	1114	1114	1114	1114	
5°	1115	1113	1106	1115	1114	106
15°	1062	1065	1064	1076	1075	299
25°	959	970	975	989	990	442
35°	825	844	860	878	884	516
45°	675	704	734	757	767	520
55°	515	555	598	630	641	461
65°	356	403	456	491	505	351
75°	193	250	311	349	365	206
85°	60	120	184	224	238	62
90°	16	81	149	191	206	12
95°	44	73	136	175	189	49
105°	161	194	202	150	158	170
115°	290	310	356	389	402	287
125°	404	410	446	471	482	361
135°	501	504	519	541	546	386
145°	577	579	580	591	596	361
155°	634	633	634	636	633	292
165°	669	667	667	670	667	189
175°	685	682	682	686	682	65
180°	685	685	685	685	685	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1
2.5°	1119.0	1118.4	1117.7	1117.0	1116.4	1115.2	1113.5	1111.8	1110.0	1108.3	1110.0
5°	1115.4	1114.8	1114.3	1113.7	1113.2	1112.1	1110.5	1108.8	1107.2	1105.6	1107.8
7.5°	1104.4	1104.6	1104.7	1104.7	1104.8	1104.1	1102.6	1101.0	1099.4	1097.9	1100.5
10°	1094.8	1095.3	1095.8	1096.4	1096.9	1096.4	1095.1	1093.8	1092.4	1091.1	1093.8
12.5°	1083.1	1083.8	1084.6	1085.3	1086.1	1086.0	1085.1	1084.1	1083.3	1082.4	1084.9
15°	1061.9	1062.7	1063.5	1064.3	1065.1	1065.4	1065.1	1064.9	1064.6	1064.3	1067.1
17.5°	1035.3	1036.9	1038.5	1040.1	1041.7	1042.5	1042.4	1042.2	1042.1	1042.1	1044.5
20°	1015.8	1017.4	1019.0	1020.7	1022.3	1023.4	1024.0	1024.5	1025.0	1025.6	1028.0
22.5°	995.4	997.0	998.7	1000.3	1001.9	1003.1	1003.9	1004.6	1005.4	1006.1	1009.1
25°	958.8	961.4	964.2	966.9	969.6	971.3	972.1	972.9	973.7	974.6	978.0
27.5°	921.9	925.0	928.0	931.1	934.2	936.6	938.3	940.0	941.7	943.5	946.6
30°	895.6	899.2	902.7	906.2	909.7	912.5	914.7	916.9	919.0	921.1	924.4
32.5°	866.6	870.5	874.4	878.3	882.3	885.6	888.5	891.3	894.1	896.9	900.4
35°	825.3	829.6	833.9	838.2	842.6	846.4	850.0	853.5	856.9	860.5	864.5
37.5°	781.6	786.5	791.3	796.1	801.0	805.6	809.9	814.2	818.5	822.9	827.4
40°	752.4	757.3	762.1	767.0	771.9	777.0	782.4	787.8	793.2	798.6	803.2
42.5°	720.4	726.4	732.3	738.2	744.1	749.9	755.5	761.2	766.8	772.4	777.4
45°	674.8	681.3	687.8	694.2	700.7	707.3	714.0	720.8	727.5	734.2	739.4
47.5°	627.0	634.3	641.7	649.0	656.3	663.9	671.5	679.3	687.0	694.7	700.4
50°	595.9	603.4	611.0	618.6	626.1	634.1	642.4	650.8	659.2	667.5	673.7
52.5°	562.8	570.9	578.9	586.8	594.9	603.4	612.7	621.9	631.1	640.3	646.8
55°	514.6	523.5	532.4	541.3	550.2	559.5	569.2	578.9	588.6	598.3	605.6
57.5°	467.5	476.8	486.1	495.3	504.6	514.6	525.2	535.8	546.4	557.1	564.4
60°	434.5	444.2	453.9	463.6	473.3	483.7	494.7	505.9	516.9	528.0	535.5
62.5°	403.4	413.3	423.3	433.2	443.1	454.0	465.7	477.3	489.0	500.8	508.3
65°	355.6	366.1	376.7	387.2	397.7	408.8	420.7	432.6	444.4	456.4	464.4
67.5°	307.0	318.3	329.4	340.5	351.7	363.4	375.4	387.5	399.6	411.7	420.5
70°	273.0	284.6	296.2	307.9	319.5	331.7	344.6	357.7	370.6	383.5	392.2
72.5°	242.0	253.6	265.2	276.8	288.4	300.9	314.2	327.6	341.0	354.4	363.2
75°	193.0	205.6	218.3	231.0	243.7	256.7	270.3	283.7	297.2	310.7	319.6
77.5°	150.3	163.0	175.8	188.6	201.3	214.5	228.2	241.7	255.4	268.9	278.3
80°	120.1	133.4	146.6	159.8	173.0	186.6	200.6	214.7	228.7	242.7	251.9
82.5°	93.9	107.4	120.8	134.2	147.7	161.5	175.8	189.9	204.2	218.5	227.7
85°	59.5	72.9	86.4	100.0	113.4	127.3	141.6	155.9	170.1	184.5	193.7
87.5°	32.4	46.0	59.7	73.4	87.0	100.9	114.9	128.9	143.0	157.0	166.3
90°	16.3	30.7	44.9	59.3	73.7	88.5	103.7	118.9	134.1	149.4	159.0
92.5°	24.3	35.8	47.4	59.1	70.7	83.8	98.4	113.1	127.8	142.4	152.0
95°	44.4	50.3	56.2	62.1	67.9	78.1	92.6	107.0	121.5	135.9	145.1
97.5°	74.3	81.7	89.1	96.5	103.9	109.9	114.3	118.9	123.3	127.8	136.7
100°	96.8	107.8	118.7	129.6	140.4	143.3	138.0	132.9	127.6	122.3	131.1
102.5°	122.8	132.2	141.5	151.0	160.3	161.5	154.4	147.4	140.3	133.2	138.0
105°	161.3	169.0	176.7	184.4	192.2	196.7	198.1	199.6	201.0	202.4	189.9
107.5°	200.7	207.2	213.7	220.2	226.7	236.2	248.9	261.4	274.1	286.7	279.2
110°	227.0	232.7	238.5	244.2	250.0	259.0	271.0	283.0	295.0	307.0	310.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	253.1	257.9	262.6	267.4	272.2	280.4	292.0	303.6	315.2	326.8	333.7
115°	290.3	294.3	298.2	302.1	306.0	313.3	324.0	334.8	345.5	356.2	363.8
117.5°	327.4	330.3	333.1	336.0	338.8	345.0	354.6	364.3	373.9	383.5	390.9
120°	349.6	352.0	354.5	356.8	359.2	365.0	374.2	383.4	392.6	401.9	409.0
122.5°	373.3	374.8	376.4	377.9	379.4	384.7	393.5	402.4	411.3	420.3	426.9
125°	404.4	405.3	406.3	407.2	408.0	412.6	420.9	429.2	437.5	445.7	451.6
127.5°	435.8	436.4	437.0	437.7	438.3	442.1	449.2	456.1	463.2	470.2	475.9
130°	455.3	455.9	456.6	457.2	457.8	461.0	466.9	472.8	478.6	484.5	490.0
132.5°	473.1	473.9	474.7	475.5	476.4	479.2	483.8	488.6	493.2	497.9	503.3
135°	501.3	501.8	502.2	502.6	503.0	504.9	508.4	511.8	515.1	518.6	523.8
137.5°	525.5	526.2	526.8	527.4	528.1	529.4	531.3	533.2	535.1	537.1	541.9
140°	540.8	541.5	542.2	542.9	543.6	544.5	545.6	546.7	547.9	549.0	553.6
142.5°	555.9	556.3	556.8	557.2	557.8	558.2	558.7	559.2	559.7	560.3	564.2
145°	576.9	577.5	578.0	578.5	579.0	579.4	579.6	579.9	580.1	580.3	582.6
147.5°	595.6	596.1	596.6	597.1	597.6	598.0	598.2	598.4	598.7	599.0	599.8
150°	607.8	608.1	608.4	608.8	609.1	609.4	609.7	609.8	610.1	610.3	610.6
152.5°	618.8	618.9	619.0	619.2	619.4	619.6	619.6	619.8	619.9	620.1	620.5
155°	634.2	634.0	633.7	633.6	633.3	633.3	633.4	633.5	633.6	633.7	634.3
157.5°	646.2	646.2	646.1	646.1	646.1	646.0	646.0	645.9	645.7	645.6	646.3
160°	653.5	653.4	653.4	653.2	653.1	653.0	652.8	652.7	652.6	652.6	653.2
162.5°	660.5	660.1	659.9	659.6	659.2	659.1	659.0	658.9	658.7	658.6	659.4
165°	668.8	668.4	668.2	667.8	667.4	667.2	667.1	667.0	666.9	666.7	667.7
167.5°	675.3	674.8	674.4	674.0	673.5	673.2	673.2	673.2	673.2	673.2	674.2
170°	678.9	678.5	678.1	677.6	677.2	676.9	676.9	676.9	676.9	676.9	677.9
172.5°	681.4	680.9	680.3	679.8	679.2	679.0	679.1	679.2	679.3	679.4	680.3
175°	684.6	684.0	683.4	682.9	682.3	682.1	682.2	682.3	682.4	682.5	683.3
177.5°	685.4	684.9	684.5	684.0	683.6	683.4	683.5	683.6	683.7	683.8	684.5
180°	684.6	684.6	684.6	684.6	684.6	684.6	684.6	684.6	684.6	684.6	684.6



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1
2.5°	1111.8	1113.5	1115.2	1116.0	1115.7	1115.5	1115.4	1115.1
5°	1109.9	1112.1	1114.3	1115.2	1114.9	1114.6	1114.4	1114.1
7.5°	1103.2	1106.0	1108.7	1109.8	1109.6	1109.2	1108.8	1108.6
10°	1096.4	1099.1	1101.9	1103.0	1102.4	1101.9	1101.4	1100.8
12.5°	1087.3	1089.8	1092.3	1093.2	1092.7	1092.2	1091.6	1091.1
15°	1069.8	1072.5	1075.1	1076.4	1076.1	1075.8	1075.6	1075.3
17.5°	1046.9	1049.4	1051.8	1052.8	1052.4	1052.0	1051.7	1051.2
20°	1030.4	1032.8	1035.3	1036.6	1036.9	1037.1	1037.4	1037.7
22.5°	1012.3	1015.3	1018.4	1019.8	1019.7	1019.6	1019.4	1019.2
25°	981.6	985.1	988.6	990.3	990.3	990.3	990.3	990.3
27.5°	949.5	952.5	955.6	957.2	957.4	957.6	957.9	958.1
30°	927.6	930.9	934.1	935.8	935.8	935.8	935.8	935.8
32.5°	903.8	907.2	910.7	912.8	913.4	914.0	914.7	915.3
35°	868.5	872.6	876.6	879.2	880.3	881.4	882.4	883.5
37.5°	832.1	836.6	841.2	843.9	844.8	845.6	846.5	847.4
40°	807.7	812.3	816.9	819.7	820.8	821.9	823.0	824.0
42.5°	782.4	787.4	792.5	795.7	797.2	798.7	800.2	801.7
45°	744.5	749.7	754.7	758.4	760.5	762.7	764.9	767.0
47.5°	706.2	712.0	717.7	721.5	723.2	724.9	726.5	728.2
50°	679.9	686.1	692.3	696.3	698.3	700.2	702.0	703.9
52.5°	653.2	659.6	666.0	670.4	672.7	675.0	677.3	679.7
55°	612.9	620.2	627.5	632.1	634.4	636.5	638.6	640.8
57.5°	571.8	579.1	586.4	591.4	593.9	596.4	599.0	601.5
60°	543.1	550.6	558.1	563.4	566.4	569.4	572.3	575.2
62.5°	515.9	523.4	530.9	536.1	538.9	541.6	544.4	547.2
65°	472.5	480.6	488.7	494.1	496.8	499.4	502.2	504.9
67.5°	429.4	438.2	447.0	452.6	454.9	457.2	459.4	461.6
70°	400.7	409.4	418.0	423.7	426.4	429.1	431.8	434.5
72.5°	372.1	380.9	389.8	395.6	398.2	400.9	403.7	406.4
75°	328.5	337.4	346.3	352.4	355.6	358.8	362.0	365.3
77.5°	287.8	297.1	306.5	312.5	314.9	317.4	319.9	322.4
80°	261.1	270.3	279.4	285.3	288.0	290.7	293.5	296.1
82.5°	236.8	245.9	255.1	261.1	263.8	266.4	269.1	271.9
85°	202.8	212.0	221.1	227.1	229.8	232.5	235.1	237.9
87.5°	175.6	184.9	194.1	200.1	202.9	205.6	208.3	211.1
90°	168.6	178.3	187.8	194.1	197.1	199.9	202.9	205.8
92.5°	161.8	171.4	181.1	187.3	189.8	192.5	195.1	197.7
95°	154.3	163.4	172.5	178.4	181.1	183.9	186.5	189.2
97.5°	145.7	154.6	163.5	169.4	172.3	175.0	177.9	180.7
100°	139.8	148.6	157.3	163.0	165.9	168.6	171.5	174.2
102.5°	142.9	147.7	152.5	156.3	159.2	162.1	165.0	167.9
105°	177.5	165.1	152.6	147.7	150.3	153.0	155.7	158.3
107.5°	271.8	264.4	256.9	246.8	234.2	221.4	208.7	196.0
110°	313.6	316.9	320.2	314.8	300.8	286.8	272.8	258.8



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CATALOG NUMBER: S123DIP-S1000D585U940-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	340.5	347.4	354.3	357.2	356.1	355.2	354.1	353.0
115°	371.5	379.1	386.6	391.8	394.4	397.0	399.6	402.3
117.5°	398.2	405.6	412.9	417.6	419.8	422.0	424.2	426.4
120°	416.1	423.2	430.3	434.8	436.8	438.6	440.5	442.4
122.5°	433.5	440.1	446.7	451.0	453.0	455.0	456.9	459.0
125°	457.4	463.4	469.3	473.2	475.4	477.5	479.7	481.7
127.5°	481.5	487.2	492.9	496.6	498.2	499.8	501.4	503.0
130°	495.6	501.1	506.8	510.2	511.6	513.0	514.4	515.8
132.5°	508.6	514.0	519.3	522.8	524.3	525.8	527.4	528.9
135°	529.0	534.1	539.4	542.4	543.5	544.5	545.5	546.5
137.5°	546.7	551.4	556.2	559.3	560.4	561.5	562.6	563.7
140°	558.0	562.6	567.0	569.9	571.0	572.1	573.2	574.4
142.5°	568.2	572.1	576.1	578.6	579.7	580.7	581.8	582.7
145°	585.1	587.5	589.9	591.6	592.6	593.7	594.8	595.8
147.5°	600.7	601.5	602.4	603.1	603.5	604.0	604.4	604.8
150°	610.7	611.0	611.2	611.4	611.6	611.8	612.1	612.2
152.5°	620.9	621.3	621.7	621.7	621.3	620.9	620.5	620.1
155°	634.8	635.4	636.0	635.9	635.3	634.5	633.9	633.2
157.5°	646.9	647.6	648.4	648.2	647.3	646.5	645.6	644.7
160°	653.9	654.5	655.2	655.1	654.4	653.6	652.8	652.0
162.5°	660.1	660.9	661.7	661.7	661.0	660.3	659.6	659.0
165°	668.6	669.5	670.4	670.5	669.7	668.9	668.1	667.3
167.5°	675.1	676.0	676.9	676.9	676.0	675.1	674.2	673.2
170°	678.8	679.7	680.6	680.6	679.7	678.8	677.9	676.9
172.5°	681.2	682.1	683.0	683.0	682.0	681.0	679.9	678.9
175°	684.1	684.9	685.7	685.6	684.7	683.9	683.0	682.0
177.5°	685.2	685.9	686.6	686.5	685.6	684.7	683.9	683.0
180°	684.6	684.6	684.6	684.6	684.6	684.6	684.6	684.6

(END OF REPORT)