

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: P332021-935

Luminaire Tested: **S123DIP-S1000D805U935-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332021-935
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-S1000D805U935-4F0-1E-UDD-D
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 805 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6380.5 lumens
Efficiency: N/A
Efficacy: 117.3 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

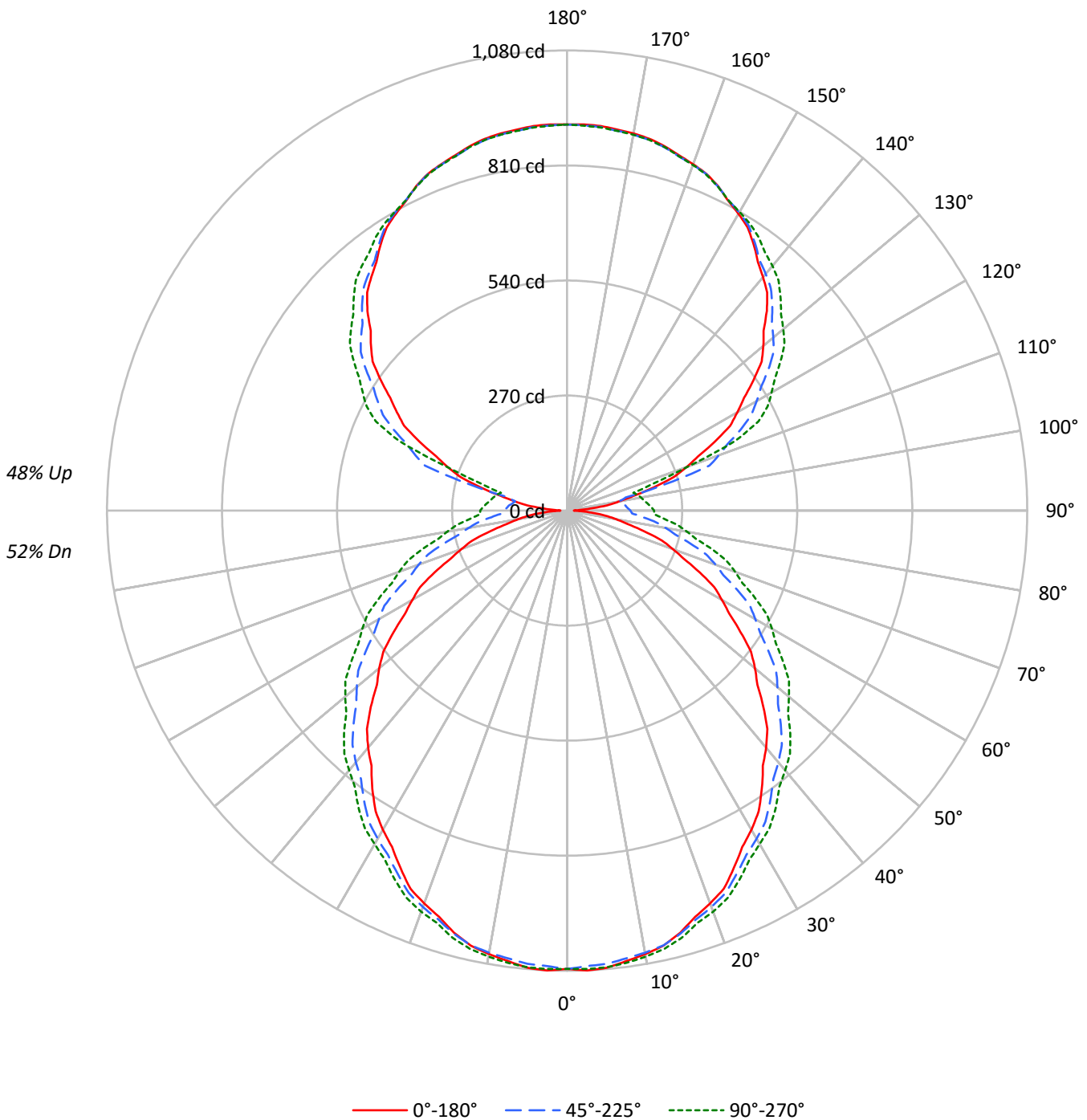
Input Watts (W): 54.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	108	108	108	100	100	100	100	84	84	84	71	71	71	58	58	58	52
1	97	92	88	84	90	85	82	78	72	70	67	60	58	57	49	48	47	41
2	88	80	73	68	81	74	68	63	63	58	55	52	49	46	43	41	39	34
3	80	70	62	56	74	65	58	52	55	50	45	46	42	39	38	35	32	28
4	73	62	53	47	67	57	50	44	49	43	38	41	36	33	33	30	28	24
5	67	55	46	40	61	51	43	38	43	38	33	36	32	28	30	27	24	21
6	62	49	41	35	57	46	38	33	39	33	29	33	28	25	27	24	21	18
7	57	44	36	30	52	41	34	29	35	29	25	30	25	22	25	21	18	16
8	53	40	32	27	49	37	30	25	32	26	22	27	23	19	23	19	16	14
9	49	37	29	24	45	34	27	22	29	24	20	25	21	17	21	17	15	13
10	46	34	26	21	42	31	25	20	27	22	18	23	19	16	19	16	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11579	11579	11579
5°	11615	11288	11294
10°	11511	11028	10973
15°	11363	10732	10622
20°	11151	10395	10235
25°	10888	10007	9829
30°	10621	9658	9417
35°	10321	9289	9089
40°	10033	8953	8737
45°	9715	8630	8455
50°	9402	8312	8146
55°	9056	7985	7866
60°	8718	7655	7580
65°	8372	7303	7241
70°	7847	6904	6893
75°	7189	6449	6538
80°	6431	6003	6131
85°	5726	5695	5898



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.0	1.6
10°-20°	290.7	4.6
20°-30°	434.8	6.8
30°-40°	519.2	8.1
40°-50°	543.3	8.5
50°-60°	509.8	8.0
60°-70°	425.8	6.7
70°-80°	304.6	4.8
80°-90°	184.2	2.9
90°-100°	146.9	2.3
100°-110°	240.8	3.8
110°-120°	433.0	6.8
120°-130°	512.2	8.0
130°-140°	527.4	8.3
140°-150°	482.9	7.6
150°-160°	387.0	6.1
160°-170°	249.8	3.9
170°-180°	86.1	1.3
0°-30°	827.5	13.0
0°-40°	1346.7	21.1
0°-60°	2399.8	37.6
0°-90°	3314.4	51.9
90°-120°	820.7	12.9
90°-150°	2343.2	36.7
90°-180°	3066.0	48.1
0°-180°	6380.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1076	1076	1076	1076	1076	
5°	1077	1074	1068	1076	1076	102
15°	1025	1029	1028	1039	1038	289
25°	926	937	941	955	956	426
35°	797	815	831	848	853	498
45°	652	680	709	731	741	502
55°	497	536	578	608	619	445
65°	343	389	441	474	488	339
75°	186	242	300	337	353	199
85°	57	116	178	216	230	60
90°	16	80	149	189	204	12
95°	54	75	137	176	190	61
105°	210	243	235	154	161	222
115°	382	402	448	482	495	377
125°	534	541	576	601	612	477
135°	663	666	681	703	708	510
145°	763	767	768	778	783	477
155°	839	838	839	842	838	387
165°	885	883	882	887	883	250
175°	906	903	903	907	903	86
180°	906	906	906	906	906	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7
2.5°	1080.5	1079.9	1079.2	1078.6	1078.0	1076.8	1075.1	1073.5	1071.8	1070.1	1071.8
5°	1076.9	1076.4	1075.9	1075.4	1074.9	1073.8	1072.3	1070.7	1069.1	1067.6	1069.6
7.5°	1066.3	1066.5	1066.6	1066.7	1066.8	1066.1	1064.6	1063.1	1061.5	1060.1	1062.6
10°	1057.0	1057.6	1058.1	1058.6	1059.1	1058.7	1057.4	1056.1	1054.8	1053.5	1056.1
12.5°	1045.8	1046.5	1047.2	1047.9	1048.7	1048.6	1047.8	1046.8	1045.9	1045.1	1047.5
15°	1025.4	1026.1	1026.9	1027.7	1028.5	1028.7	1028.5	1028.2	1027.9	1027.7	1030.4
17.5°	999.6	1001.2	1002.7	1004.3	1005.8	1006.6	1006.5	1006.3	1006.3	1006.2	1008.5
20°	980.9	982.4	984.0	985.5	987.1	988.2	988.7	989.2	989.7	990.2	992.6
22.5°	961.1	962.7	964.3	965.9	967.4	968.5	969.3	970.0	970.8	971.5	974.4
25°	925.7	928.3	931.0	933.6	936.2	937.9	938.7	939.4	940.2	941.0	944.3
27.5°	890.1	893.1	896.0	899.1	902.0	904.3	906.0	907.7	909.3	911.0	914.0
30°	864.8	868.2	871.6	874.9	878.4	881.1	883.2	885.3	887.3	889.4	892.6
32.5°	836.7	840.5	844.3	848.1	851.9	855.1	857.9	860.6	863.3	866.0	869.4
35°	796.9	801.0	805.2	809.3	813.6	817.3	820.7	824.1	827.4	830.9	834.7
37.5°	754.7	759.4	764.1	768.7	773.4	777.8	782.0	786.2	790.3	794.5	798.9
40°	726.5	731.2	735.9	740.6	745.3	750.3	755.4	760.7	765.9	771.1	775.5
42.5°	695.6	701.4	707.1	712.8	718.5	724.1	729.5	734.9	740.4	745.8	750.6
45°	651.5	657.8	664.1	670.3	676.6	682.9	689.4	695.9	702.5	708.9	713.9
47.5°	605.4	612.4	619.6	626.6	633.7	641.0	648.4	655.9	663.3	670.8	676.3
50°	575.4	582.6	590.0	597.3	604.5	612.3	620.3	628.4	636.5	644.5	650.5
52.5°	543.5	551.2	559.0	566.6	574.4	582.6	591.6	600.5	609.3	618.3	624.5
55°	496.9	505.5	514.0	522.6	531.2	540.2	549.6	559.0	568.3	577.7	584.8
57.5°	451.4	460.4	469.3	478.3	487.2	496.9	507.1	517.4	527.6	537.9	544.9
60°	419.6	428.9	438.2	447.6	457.0	467.0	477.7	488.4	499.1	509.8	517.0
62.5°	389.5	399.1	408.7	418.3	427.8	438.3	449.6	460.9	472.2	483.5	490.8
65°	343.4	353.5	363.7	373.8	384.0	394.8	406.2	417.7	429.1	440.7	448.4
67.5°	296.4	307.3	318.1	328.8	339.6	350.9	362.5	374.2	385.8	397.5	406.0
70°	263.6	274.8	286.0	297.3	308.5	320.3	332.8	345.3	357.8	370.3	378.7
72.5°	233.7	244.9	256.1	267.3	278.4	290.5	303.4	316.3	329.2	342.2	350.7
75°	186.3	198.5	210.8	223.1	235.3	247.9	261.0	274.0	287.0	300.0	308.6
77.5°	145.1	157.4	169.8	182.1	194.4	207.2	220.3	233.4	246.6	259.7	268.7
80°	116.0	128.8	141.5	154.3	167.0	180.2	193.7	207.3	220.8	234.4	243.2
82.5°	90.7	103.7	116.7	129.6	142.6	155.9	169.7	183.4	197.2	210.9	219.8
85°	57.4	70.4	83.4	96.5	109.5	123.0	136.7	150.5	164.3	178.1	187.0
87.5°	31.3	44.6	57.9	71.1	84.4	97.8	111.5	125.2	138.9	152.5	161.5
90°	15.9	30.1	44.4	58.6	72.9	87.6	102.9	118.1	133.4	148.6	158.0
92.5°	26.8	37.9	49.0	60.1	71.2	84.0	98.5	113.0	127.6	142.2	151.8
95°	54.0	57.9	62.0	66.0	70.1	79.3	93.7	108.1	122.4	136.9	146.0
97.5°	94.0	100.4	106.9	113.2	119.7	123.6	125.0	126.4	127.9	129.2	138.2
100°	124.3	135.6	147.0	158.3	169.6	169.6	158.3	146.9	135.5	124.2	132.9
102.5°	158.9	168.6	178.2	187.9	197.5	195.5	181.8	168.1	154.4	140.6	144.2
105°	210.0	217.8	225.8	233.7	241.5	244.4	242.1	239.9	237.5	235.3	216.1
107.5°	262.7	269.3	276.0	282.6	289.2	298.9	311.6	324.3	337.2	349.9	337.4
110°	297.8	303.7	309.6	315.5	321.3	330.4	342.4	354.5	366.5	378.6	380.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	332.3	337.3	342.2	347.1	352.0	360.3	372.0	383.6	395.2	406.9	413.5
115°	382.1	386.2	390.2	394.2	398.2	405.6	416.3	427.1	437.7	448.5	456.2
117.5°	431.3	434.4	437.4	440.4	443.4	449.7	459.2	468.7	478.2	487.7	495.1
120°	461.1	463.7	466.4	469.0	471.7	477.5	486.6	495.6	504.6	513.7	520.8
122.5°	492.3	494.0	495.8	497.7	499.5	504.7	513.4	522.2	531.0	539.7	546.3
125°	533.9	535.1	536.3	537.5	538.7	543.4	551.6	559.7	567.8	576.0	581.8
127.5°	575.4	576.4	577.3	578.2	579.1	583.1	590.0	597.0	604.0	611.0	616.6
130°	601.2	602.2	603.1	604.1	605.0	608.4	614.2	620.0	625.8	631.6	637.1
132.5°	625.1	626.2	627.4	628.5	629.6	632.6	637.2	641.9	646.5	651.2	656.5
135°	662.7	663.3	663.9	664.6	665.2	667.3	670.7	674.2	677.7	681.1	686.3
137.5°	694.7	695.7	696.6	697.6	698.4	699.9	701.9	703.8	705.8	707.7	712.5
140°	715.3	716.3	717.1	718.1	718.9	720.1	721.3	722.5	723.7	725.0	729.4
142.5°	735.3	736.0	736.7	737.4	738.0	738.7	739.3	739.9	740.5	741.1	745.1
145°	763.2	764.0	764.7	765.5	766.3	766.8	767.2	767.4	767.8	768.0	770.4
147.5°	788.2	788.9	789.6	790.3	791.0	791.5	791.8	792.0	792.4	792.6	793.6
150°	804.3	804.9	805.3	805.7	806.2	806.6	806.8	807.2	807.4	807.8	808.0
152.5°	818.9	819.2	819.3	819.6	819.8	819.9	820.1	820.3	820.5	820.7	821.2
155°	839.4	839.1	838.8	838.5	838.2	838.1	838.3	838.4	838.5	838.7	839.5
157.5°	855.2	855.2	855.2	855.1	855.1	855.1	854.9	854.8	854.6	854.5	855.4
160°	865.0	864.8	864.7	864.5	864.4	864.2	864.1	863.9	863.8	863.6	864.5
162.5°	874.1	873.7	873.3	873.0	872.5	872.3	872.1	872.0	871.8	871.7	872.7
165°	885.2	884.7	884.2	883.8	883.4	883.0	883.0	882.8	882.6	882.4	883.6
167.5°	893.8	893.2	892.6	892.0	891.4	891.0	891.0	891.0	891.0	891.0	892.3
170°	898.6	898.0	897.4	896.8	896.2	896.0	896.0	896.0	896.0	896.0	897.2
172.5°	901.8	901.1	900.4	899.7	899.0	898.7	898.8	898.9	899.1	899.1	900.3
175°	906.0	905.3	904.6	903.8	903.0	902.8	902.8	903.0	903.2	903.4	904.4
177.5°	907.1	906.5	905.9	905.3	904.7	904.5	904.6	904.7	904.8	904.9	905.9
180°	906.0	906.0	906.0	906.0	906.0	906.0	906.0	906.0	906.0	906.0	906.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7	1075.7
2.5°	1073.5	1075.1	1076.8	1077.5	1077.3	1077.1	1076.9	1076.7
5°	1071.7	1073.8	1075.9	1076.8	1076.5	1076.2	1076.0	1075.7
7.5°	1065.2	1067.9	1070.5	1071.6	1071.3	1071.0	1070.7	1070.4
10°	1058.7	1061.3	1063.9	1065.0	1064.5	1063.9	1063.4	1062.9
12.5°	1049.8	1052.2	1054.6	1055.6	1055.1	1054.6	1054.0	1053.5
15°	1032.9	1035.5	1038.1	1039.3	1039.1	1038.8	1038.5	1038.3
17.5°	1010.8	1013.2	1015.5	1016.5	1016.2	1015.8	1015.5	1015.0
20°	994.9	997.2	999.6	1000.9	1001.2	1001.4	1001.7	1001.9
22.5°	977.4	980.3	983.3	984.7	984.6	984.5	984.3	984.1
25°	947.8	951.1	954.5	956.2	956.2	956.2	956.2	956.2
27.5°	916.8	919.7	922.6	924.2	924.5	924.6	924.9	925.1
30°	895.7	898.8	901.9	903.5	903.5	903.5	903.5	903.5
32.5°	872.7	876.0	879.3	881.3	881.9	882.5	883.2	883.8
35°	838.6	842.6	846.4	848.9	850.0	851.0	852.0	853.1
37.5°	803.4	807.8	812.3	814.9	815.7	816.5	817.3	818.2
40°	779.9	784.4	788.8	791.5	792.6	793.6	794.6	795.7
42.5°	755.4	760.3	765.2	768.3	769.7	771.2	772.7	774.1
45°	718.8	723.8	728.8	732.3	734.3	736.4	738.6	740.6
47.5°	681.9	687.5	693.0	696.6	698.3	699.9	701.5	703.1
50°	656.5	662.5	668.5	672.4	674.2	676.1	677.9	679.7
52.5°	630.7	636.9	643.1	647.3	649.5	651.8	654.0	656.3
55°	591.8	598.8	605.9	610.4	612.5	614.6	616.6	618.7
57.5°	552.1	559.1	566.2	571.0	573.4	575.8	578.3	580.7
60°	524.3	531.7	538.9	544.0	546.9	549.7	552.6	555.4
62.5°	498.1	505.4	512.6	517.6	520.3	523.0	525.6	528.3
65°	456.2	464.1	471.8	477.1	479.7	482.2	484.9	487.5
67.5°	414.6	423.1	431.6	437.0	439.2	441.4	443.6	445.7
70°	386.9	395.3	403.6	409.1	411.7	414.3	416.9	419.6
72.5°	359.3	367.8	376.3	381.9	384.5	387.1	389.8	392.4
75°	317.2	325.8	334.3	340.3	343.4	346.5	349.6	352.8
77.5°	277.8	286.9	295.9	301.7	304.0	306.4	308.8	311.3
80°	252.1	261.0	269.8	275.5	278.1	280.7	283.4	285.9
82.5°	228.7	237.5	246.3	252.1	254.7	257.3	259.8	262.5
85°	195.8	204.7	213.5	219.3	221.9	224.5	227.0	229.7
87.5°	170.5	179.4	188.4	194.2	196.9	199.6	202.2	204.9
90°	167.5	176.9	186.4	192.5	195.4	198.4	201.3	204.1
92.5°	161.4	171.0	180.6	186.7	189.2	191.8	194.4	197.0
95°	155.2	164.3	173.3	179.3	181.8	184.4	187.0	189.7
97.5°	147.1	156.1	165.1	170.9	173.7	176.4	179.2	181.9
100°	141.6	150.4	159.2	164.9	167.6	170.4	173.1	175.9
102.5°	147.9	151.5	155.2	158.4	161.3	164.2	167.0	169.9
105°	196.9	177.7	158.6	150.3	152.9	155.6	158.3	160.8
107.5°	325.0	312.5	300.1	285.1	267.4	249.8	232.1	214.4
110°	382.3	384.1	385.9	377.2	357.8	338.5	319.3	300.0



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CATALOG NUMBER: S123DIP-S1000D805U935-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	420.2	426.8	433.5	435.7	433.5	431.3	429.0	426.8
115°	464.0	471.7	479.5	484.7	487.3	490.1	492.8	495.4
117.5°	502.5	509.9	517.2	522.0	524.2	526.3	528.5	530.6
120°	528.1	535.2	542.4	546.9	548.7	550.6	552.4	554.2
122.5°	552.9	559.6	566.2	570.4	572.4	574.3	576.3	578.2
125°	587.5	593.3	599.1	603.0	605.1	607.3	609.4	611.5
127.5°	622.2	627.8	633.5	637.1	638.5	640.0	641.4	642.9
130°	642.7	648.2	653.8	657.2	658.4	659.7	661.0	662.2
132.5°	661.9	667.2	672.5	675.8	677.2	678.6	679.9	681.2
135°	691.4	696.5	701.7	704.6	705.5	706.4	707.2	708.1
137.5°	717.4	722.2	727.0	730.0	730.9	731.9	733.0	733.9
140°	733.9	738.5	743.0	745.7	746.7	747.7	748.7	749.7
142.5°	749.1	753.0	757.0	759.4	760.3	761.2	762.1	762.9
145°	772.8	775.2	777.6	779.3	780.3	781.4	782.4	783.4
147.5°	794.5	795.5	796.3	796.9	797.2	797.5	797.7	798.0
150°	808.3	808.7	808.9	809.2	809.2	809.3	809.3	809.4
152.5°	821.7	822.3	822.9	822.8	822.3	821.7	821.0	820.4
155°	840.2	840.9	841.7	841.6	840.8	839.8	839.0	838.0
157.5°	856.3	857.1	858.1	857.9	856.8	855.6	854.5	853.3
160°	865.4	866.3	867.2	867.1	866.1	865.0	864.0	863.0
162.5°	873.7	874.8	875.7	875.8	874.9	873.9	873.1	872.1
165°	884.8	886.1	887.3	887.3	886.3	885.2	884.2	883.1
167.5°	893.5	894.7	895.9	895.9	894.7	893.5	892.3	891.0
170°	898.3	899.5	900.7	900.7	899.5	898.3	897.2	896.0
172.5°	901.6	902.8	904.0	903.9	902.6	901.3	899.9	898.6
175°	905.4	906.5	907.5	907.4	906.3	905.1	903.9	902.7
177.5°	906.9	907.8	908.8	908.7	907.5	906.3	905.1	903.9
180°	906.0	906.0	906.0	906.0	906.0	906.0	906.0	906.0

(END OF REPORT)