

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: P332012-930

Luminaire Tested: **S123DIP-S1000D585U930-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332012-930
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-S1000D585U930-4F0-1E-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

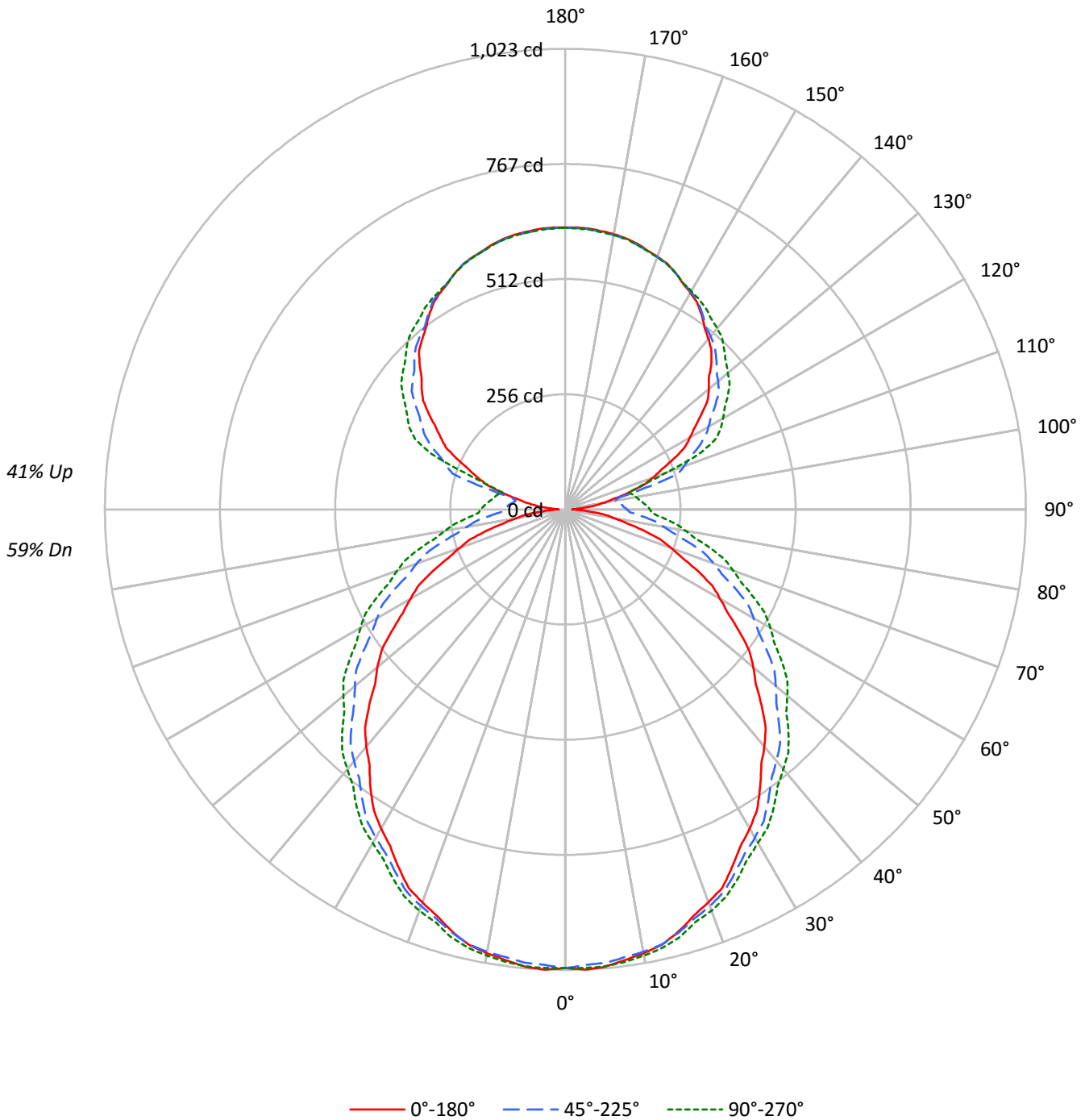
Lumens per Lamp: N/A
Luminaire Lumens: 5333.6 lumens
Efficiency: N/A
Efficacy: 109.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.08')
CIE Type: General Diffuse

Input Watts (W): 48.8
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				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°	10964	10964	10964
5°	10999	10689	10694
10°	10900	10443	10390
15°	10759	10162	10058
20°	10559	9844	9692
25°	10311	9476	9308
30°	10057	9145	8918
35°	9773	8796	8606
40°	9500	8479	8272
45°	9199	8172	8007
50°	8904	7871	7713
55°	8574	7562	7449
60°	8255	7248	7178
65°	7926	6915	6856
70°	7430	6538	6527
75°	6807	6107	6190
80°	6087	5683	5807
85°	5426	5394	5585



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.6	1.8
10°-20°	275.3	5.2
20°-30°	411.7	7.7
30°-40°	491.7	9.2
40°-50°	514.4	9.6
50°-60°	482.8	9.1
60°-70°	403.2	7.6
70°-80°	288.5	5.4
80°-90°	173.8	3.3
90°-100°	130.7	2.5
100°-110°	187.8	3.5
110°-120°	313.5	5.9
120°-130°	362.0	6.8
130°-140°	368.0	6.9
140°-150°	334.4	6.3
150°-160°	267.4	5.0
160°-170°	172.6	3.2
170°-180°	59.5	1.1
0°-30°	783.6	14.7
0°-40°	1275.2	23.9
0°-60°	2272.4	42.6
0°-90°	3137.9	58.8
90°-120°	631.9	11.8
90°-150°	1696.3	31.8
90°-180°	2196.0	41.2
0°-180°	5333.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1019	1019	1019	1019	1019	
5°	1020	1017	1011	1019	1019	97
15°	971	974	973	984	983	273
25°	877	887	891	905	906	404
35°	755	772	787	803	808	472
45°	617	644	671	692	701	476
55°	470	507	547	576	586	421
65°	325	369	417	449	462	321
75°	176	229	284	319	334	188
85°	54	110	169	205	218	57
90°	15	74	137	175	188	11
95°	41	67	124	160	173	45
105°	148	178	185	137	145	156
115°	266	283	326	356	368	262
125°	370	375	408	431	440	330
135°	458	461	474	495	500	353
145°	528	530	531	540	545	330
155°	580	579	579	581	579	267
165°	612	610	610	613	610	173
175°	626	624	624	627	624	60
180°	626	626	626	626	626	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6
2.5°	1023.1	1022.5	1021.9	1021.3	1020.8	1019.6	1018.1	1016.5	1014.9	1013.3	1014.9
5°	1019.8	1019.3	1018.8	1018.3	1017.8	1016.8	1015.4	1013.8	1012.4	1010.9	1012.8
7.5°	1009.7	1009.9	1010.0	1010.1	1010.2	1009.5	1008.1	1006.7	1005.2	1003.8	1006.2
10°	1000.9	1001.4	1001.9	1002.4	1002.9	1002.5	1001.3	1000.0	998.8	997.6	1000.0
12.5°	990.3	990.9	991.6	992.3	993.0	993.0	992.1	991.2	990.4	989.6	991.9
15°	970.9	971.7	972.4	973.1	973.9	974.1	973.9	973.6	973.4	973.1	975.7
17.5°	946.6	948.0	949.5	951.0	952.4	953.2	953.1	952.9	952.8	952.8	955.0
20°	928.8	930.3	931.7	933.2	934.7	935.7	936.2	936.7	937.2	937.7	939.9
22.5°	910.1	911.6	913.1	914.6	916.1	917.1	917.9	918.5	919.2	919.9	922.7
25°	876.6	879.1	881.6	884.0	886.5	888.1	888.8	889.6	890.3	891.0	894.2
27.5°	842.9	845.7	848.5	851.3	854.1	856.3	857.9	859.5	861.0	862.7	865.4
30°	818.9	822.1	825.3	828.5	831.8	834.3	836.3	838.3	840.2	842.2	845.2
32.5°	792.3	795.9	799.5	803.1	806.7	809.8	812.4	814.9	817.5	820.0	823.2
35°	754.6	758.5	762.5	766.4	770.4	773.9	777.1	780.3	783.5	786.8	790.4
37.5°	714.6	719.1	723.5	727.9	732.4	736.5	740.5	744.4	748.4	752.4	756.5
40°	687.9	692.4	696.8	701.3	705.7	710.5	715.3	720.3	725.2	730.2	734.3
42.5°	658.7	664.1	669.5	675.0	680.4	685.7	690.8	695.9	701.1	706.2	710.8
45°	616.9	622.9	628.8	634.7	640.7	646.7	652.8	659.0	665.2	671.3	676.0
47.5°	573.2	579.9	586.7	593.4	600.1	607.0	614.0	621.1	628.1	635.2	640.4
50°	544.9	551.7	558.6	565.6	572.4	579.8	587.3	595.0	602.7	610.3	616.0
52.5°	514.6	522.0	529.3	536.5	543.9	551.7	560.2	568.6	577.0	585.5	591.3
55°	470.5	478.7	486.7	494.9	503.0	511.5	520.4	529.3	538.2	547.1	553.8
57.5°	427.5	435.9	444.4	452.9	461.4	470.5	480.2	489.9	499.6	509.3	516.0
60°	397.3	406.1	415.0	423.9	432.8	442.2	452.3	462.5	472.6	482.7	489.6
62.5°	368.8	377.9	387.0	396.1	405.1	415.1	425.7	436.4	447.1	457.9	464.7
65°	325.1	334.8	344.4	354.0	363.6	373.8	384.7	395.5	406.3	417.3	424.6
67.5°	280.7	291.0	301.2	311.4	321.6	332.2	343.2	354.3	365.3	376.4	384.5
70°	249.6	260.2	270.8	281.5	292.1	303.3	315.1	327.0	338.8	350.7	358.6
72.5°	221.3	231.9	242.5	253.1	263.7	275.1	287.3	299.5	311.8	324.0	332.1
75°	176.4	188.0	199.6	211.2	222.8	234.7	247.1	259.4	271.7	284.1	292.2
77.5°	137.4	149.0	160.8	172.4	184.1	196.2	208.6	221.0	233.5	245.9	254.5
80°	109.8	122.0	134.0	146.1	158.2	170.6	183.4	196.3	209.1	221.9	230.3
82.5°	85.9	98.2	110.5	122.7	135.0	147.7	160.7	173.7	186.7	199.7	208.1
85°	54.4	66.7	79.0	91.4	103.7	116.4	129.5	142.5	155.6	168.7	177.1
87.5°	29.6	42.1	54.5	67.1	79.6	92.2	105.1	117.9	130.8	143.6	152.1
90°	14.9	28.0	41.1	54.2	67.3	80.9	94.8	108.7	122.6	136.6	145.4
92.5°	22.2	32.8	43.4	54.1	64.7	76.6	90.0	103.4	116.8	130.2	139.0
95°	40.6	46.0	51.4	56.7	62.1	71.4	84.6	97.8	111.0	124.3	132.6
97.5°	67.9	74.7	81.4	88.2	95.0	100.4	104.5	108.7	112.8	116.8	125.0
100°	88.5	98.6	108.5	118.5	128.4	131.0	126.2	121.5	116.7	111.9	119.8
102.5°	112.3	120.8	129.4	138.0	146.6	147.7	141.2	134.8	128.2	121.8	126.2
105°	147.5	154.5	161.6	168.6	175.7	179.9	181.2	182.5	183.8	185.1	173.7
107.5°	183.5	189.5	195.3	201.3	207.2	216.0	227.6	239.0	250.6	262.1	255.3
110°	207.6	212.8	218.1	223.3	228.6	236.8	247.8	258.8	269.7	280.7	283.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	231.4	235.8	240.1	244.5	248.9	256.4	267.0	277.6	288.2	298.8	305.1
115°	265.5	269.0	272.6	276.2	279.8	286.5	296.3	306.1	315.9	325.7	332.6
117.5°	299.4	302.0	304.6	307.2	309.7	315.4	324.2	333.0	341.9	350.7	357.4
120°	319.7	321.9	324.1	326.2	328.4	333.7	342.1	350.6	359.0	367.5	374.0
122.5°	341.3	342.7	344.1	345.5	346.9	351.7	359.8	367.9	376.1	384.3	390.3
125°	369.7	370.6	371.5	372.3	373.1	377.2	384.8	392.4	400.0	407.5	412.9
127.5°	398.4	399.0	399.6	400.1	400.7	404.2	410.7	417.0	423.5	429.9	435.1
130°	416.3	416.9	417.4	418.0	418.6	421.5	426.9	432.3	437.6	443.0	448.0
132.5°	432.5	433.3	434.1	434.8	435.6	438.1	442.4	446.7	450.9	455.3	460.2
135°	458.4	458.8	459.2	459.5	459.9	461.6	464.8	467.9	471.0	474.2	478.9
137.5°	480.5	481.1	481.7	482.2	482.8	484.0	485.8	487.5	489.3	491.1	495.5
140°	494.5	495.1	495.7	496.4	497.0	497.8	498.9	499.9	500.9	502.0	506.1
142.5°	508.3	508.7	509.1	509.5	510.0	510.4	510.9	511.3	511.8	512.3	515.8
145°	527.5	528.0	528.5	529.0	529.4	529.8	529.9	530.2	530.4	530.6	532.7
147.5°	544.5	545.0	545.5	545.9	546.4	546.7	547.0	547.1	547.4	547.6	548.4
150°	555.7	556.0	556.3	556.6	556.9	557.2	557.4	557.6	557.8	558.0	558.2
152.5°	565.7	565.9	566.0	566.1	566.3	566.5	566.6	566.7	566.8	567.0	567.3
155°	579.8	579.7	579.4	579.3	579.0	579.0	579.1	579.2	579.3	579.4	579.9
157.5°	590.8	590.8	590.8	590.8	590.8	590.7	590.6	590.5	590.4	590.3	590.9
160°	597.5	597.5	597.4	597.2	597.1	597.0	596.9	596.8	596.7	596.6	597.2
162.5°	603.9	603.6	603.3	603.1	602.8	602.6	602.5	602.4	602.3	602.2	602.9
165°	611.5	611.1	610.9	610.6	610.3	610.0	609.9	609.8	609.8	609.6	610.5
167.5°	617.4	617.0	616.6	616.2	615.8	615.6	615.6	615.6	615.6	615.6	616.4
170°	620.8	620.4	620.0	619.5	619.1	618.9	618.9	618.9	618.9	618.9	619.8
172.5°	623.1	622.6	622.0	621.5	621.0	620.9	620.9	621.0	621.1	621.2	622.0
175°	625.9	625.4	624.8	624.4	623.9	623.6	623.7	623.9	623.9	624.0	624.8
177.5°	626.6	626.2	625.8	625.4	625.0	624.8	624.9	625.0	625.1	625.2	625.8
180°	625.9	625.9	625.9	625.9	625.9	625.9	625.9	625.9	625.9	625.9	625.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6	1018.6
2.5°	1016.5	1018.1	1019.6	1020.3	1020.1	1019.9	1019.8	1019.5
5°	1014.8	1016.8	1018.8	1019.6	1019.4	1019.1	1018.9	1018.6
7.5°	1008.7	1011.2	1013.7	1014.7	1014.5	1014.2	1013.8	1013.6
10°	1002.5	1004.9	1007.5	1008.4	1008.0	1007.5	1007.0	1006.5
12.5°	994.1	996.4	998.7	999.6	999.1	998.6	998.1	997.6
15°	978.1	980.6	983.0	984.1	983.9	983.7	983.4	983.2
17.5°	957.2	959.4	961.6	962.5	962.2	961.9	961.6	961.2
20°	942.1	944.3	946.6	947.8	948.0	948.3	948.5	948.8
22.5°	925.5	928.3	931.2	932.5	932.3	932.2	932.1	931.9
25°	897.5	900.7	903.8	905.5	905.5	905.5	905.5	905.5
27.5°	868.1	870.9	873.7	875.1	875.4	875.5	875.8	876.0
30°	848.2	851.1	854.0	855.6	855.6	855.6	855.6	855.6
32.5°	826.4	829.5	832.7	834.5	835.1	835.7	836.3	836.9
35°	794.1	797.9	801.5	803.9	804.9	805.8	806.8	807.8
37.5°	760.8	764.9	769.2	771.6	772.4	773.1	774.0	774.8
40°	738.5	742.7	746.9	749.5	750.5	751.5	752.4	753.4
42.5°	715.3	719.9	724.6	727.5	728.9	730.3	731.6	733.0
45°	680.7	685.4	690.1	693.4	695.4	697.3	699.4	701.3
47.5°	645.7	651.0	656.2	659.7	661.2	662.8	664.2	665.8
50°	621.7	627.3	633.0	636.7	638.5	640.2	641.9	643.6
52.5°	597.2	603.1	608.9	612.9	615.1	617.2	619.3	621.4
55°	560.4	567.0	573.7	578.0	580.0	582.0	583.9	585.9
57.5°	522.8	529.5	536.1	540.7	543.0	545.3	547.6	549.9
60°	496.5	503.4	510.3	515.1	517.9	520.6	523.3	525.9
62.5°	471.7	478.6	485.4	490.2	492.7	495.2	497.7	500.3
65°	432.0	439.4	446.8	451.8	454.2	456.6	459.2	461.6
67.5°	392.6	400.6	408.7	413.8	415.9	418.0	420.0	422.1
70°	366.4	374.3	382.2	387.4	389.9	392.3	394.8	397.3
72.5°	340.2	348.3	356.4	361.7	364.1	366.6	369.1	371.5
75°	300.4	308.5	316.6	322.2	325.1	328.1	331.0	334.0
77.5°	263.1	271.7	280.2	285.7	287.9	290.2	292.4	294.7
80°	238.7	247.1	255.4	260.9	263.3	265.8	268.3	270.8
82.5°	216.5	224.9	233.3	238.7	241.2	243.6	246.1	248.6
85°	185.4	193.8	202.2	207.7	210.1	212.5	215.0	217.5
87.5°	160.5	169.0	177.5	183.0	185.5	188.0	190.5	193.0
90°	154.2	163.0	171.7	177.5	180.2	182.8	185.5	188.2
92.5°	147.9	156.7	165.6	171.2	173.6	176.0	178.4	180.8
95°	141.0	149.4	157.8	163.1	165.6	168.1	170.6	173.0
97.5°	133.2	141.4	149.5	154.9	157.5	160.0	162.7	165.2
100°	127.8	135.8	143.8	149.0	151.6	154.2	156.8	159.3
102.5°	130.6	135.0	139.4	142.9	145.5	148.2	150.8	153.5
105°	162.3	150.9	139.5	135.0	137.5	139.9	142.4	144.7
107.5°	248.5	241.7	234.9	225.7	214.1	202.4	190.9	179.2
110°	286.7	289.8	292.8	287.8	275.0	262.2	249.4	236.6



TEST NUMBER: P332012-930

CATALOG NUMBER: S123DIP-S1000D585U930-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	311.4	317.6	323.9	326.6	325.6	324.7	323.8	322.8
115°	339.7	346.6	353.5	358.2	360.6	363.0	365.3	367.8
117.5°	364.1	370.8	377.5	381.8	383.8	385.9	387.8	389.9
120°	380.4	386.9	393.5	397.5	399.3	401.0	402.8	404.5
122.5°	396.3	402.4	408.5	412.4	414.2	416.0	417.8	419.6
125°	418.2	423.7	429.1	432.7	434.6	436.6	438.5	440.4
127.5°	440.3	445.5	450.7	454.0	455.5	457.0	458.4	459.9
130°	453.1	458.2	463.3	466.5	467.7	469.0	470.3	471.6
132.5°	465.0	469.9	474.8	478.0	479.4	480.8	482.2	483.6
135°	483.6	488.4	493.2	495.9	496.9	497.8	498.7	499.7
137.5°	499.9	504.2	508.6	511.4	512.3	513.4	514.4	515.4
140°	510.2	514.4	518.4	521.1	522.0	523.1	524.1	525.1
142.5°	519.5	523.1	526.8	529.0	530.0	530.9	531.9	532.8
145°	534.9	537.1	539.3	540.9	541.8	542.8	543.8	544.8
147.5°	549.2	550.0	550.8	551.4	551.8	552.2	552.6	553.0
150°	558.4	558.6	558.8	559.1	559.2	559.4	559.6	559.8
152.5°	567.7	568.0	568.4	568.4	568.0	567.7	567.3	567.0
155°	580.4	581.0	581.5	581.4	580.8	580.2	579.6	578.9
157.5°	591.5	592.2	592.8	592.6	591.8	591.1	590.3	589.5
160°	597.9	598.4	599.1	599.0	598.3	597.6	596.9	596.1
162.5°	603.6	604.3	605.0	605.0	604.4	603.7	603.1	602.5
165°	611.3	612.1	612.9	613.0	612.3	611.6	610.8	610.1
167.5°	617.3	618.1	618.9	618.9	618.1	617.3	616.4	615.6
170°	620.6	621.4	622.2	622.2	621.4	620.6	619.8	618.9
172.5°	622.8	623.6	624.4	624.4	623.5	622.6	621.7	620.8
175°	625.5	626.2	627.0	626.9	626.1	625.3	624.4	623.5
177.5°	626.5	627.1	627.8	627.7	626.9	626.1	625.3	624.4
180°	625.9	625.9	625.9	625.9	625.9	625.9	625.9	625.9

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