

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: P332577-927

Luminaire Tested: **S124DIP-S575D1205U927-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332577-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-6,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DIP-S575D1205U927-4F0-1E-UDD-F
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1205 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5784.6 lumens
Efficiency: N/A
Efficacy: 117.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Semi-Indirect

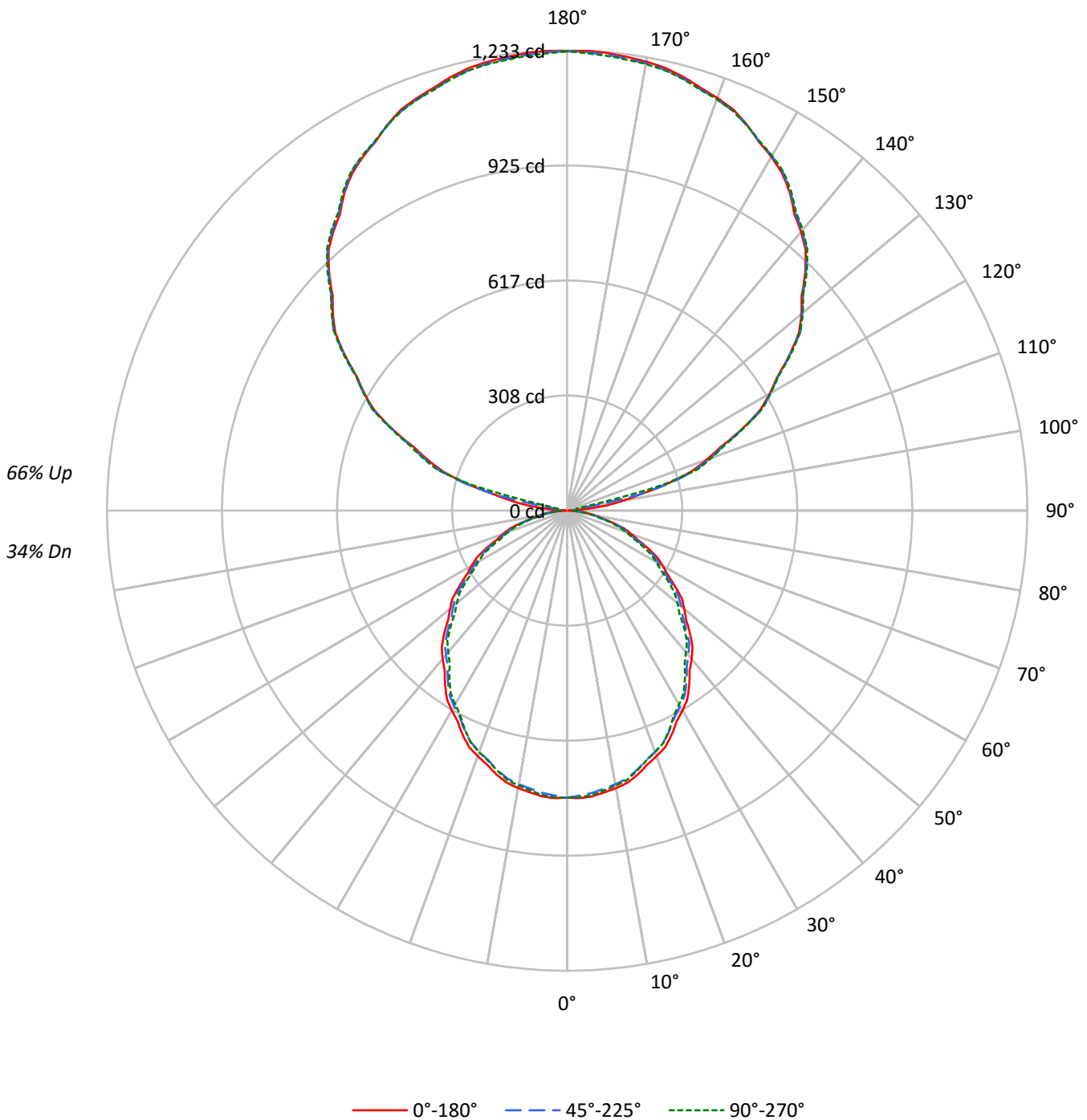
Input Watts (W): 49.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332577-927

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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	103	103	103	103	93	93	93	93	75	75	75	57	57	57	42	42	42	34
1	94	90	86	83	85	81	78	75	65	63	61	50	49	48	37	36	35	29
2	86	79	73	67	77	71	66	62	57	54	50	44	42	40	32	31	29	24
3	78	69	62	56	70	62	56	51	50	46	42	39	36	34	29	27	25	20
4	71	61	53	47	64	55	49	44	45	40	36	35	31	29	26	23	22	17
5	65	54	46	40	59	49	42	37	40	35	31	31	28	25	23	21	19	15
6	60	48	41	35	54	44	37	32	36	31	27	28	24	22	21	18	16	13
7	56	44	36	30	50	40	33	28	32	27	24	25	22	19	19	17	15	12
8	52	40	32	27	46	36	29	25	29	24	21	23	20	17	17	15	13	11
9	48	36	29	24	43	33	26	22	27	22	19	21	18	15	16	14	12	10
10	45	33	26	21	40	30	24	20	25	20	17	20	16	14	15	12	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6211	6211	6211
5°	6229	6155	6199
10°	6190	6105	6135
15°	6115	6018	6033
20°	6016	5910	5916
25°	5903	5787	5770
30°	5764	5643	5591
35°	5619	5492	5419
40°	5469	5321	5223
45°	5313	5151	5053
50°	5141	5001	4847
55°	4954	4807	4650
60°	4766	4589	4448
65°	4556	4380	4204
70°	4322	4102	3944
75°	3961	3768	3671
80°	3524	3380	3296
85°	3084	2973	2908



TEST NUMBER: P332577-927

CATALOG NUMBER: S124DIP-S575D1205U927-4F0-1E-UDD-F

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.5	1.3
10°-20°	204.1	3.5
20°-30°	300.5	5.2
30°-40°	349.3	6.0
40°-50°	349.3	6.0
50°-60°	305.5	5.3
60°-70°	226.9	3.9
70°-80°	128.9	2.2
80°-90°	40.8	0.7
90°-100°	42.1	0.7
100°-110°	268.4	4.6
110°-120°	513.4	8.9
120°-130°	651.7	11.3
130°-140°	697.3	12.1
140°-150°	652.1	11.3
150°-160°	525.8	9.1
160°-170°	339.2	5.9
170°-180°	116.9	2.0
0°-30°	577.0	10.0
0°-40°	926.3	16.0
0°-60°	1581.2	27.3
0°-90°	1977.7	34.2
90°-120°	823.9	14.2
90°-150°	2825.0	48.8
90°-180°	3807.0	65.8
0°-180°	5784.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	769	769	769	769	769	
5°	769	766	760	766	765	73
15°	732	729	720	723	722	206
25°	663	658	650	650	648	305
35°	570	566	557	553	550	356
45°	465	461	451	445	443	359
55°	352	350	342	334	330	315
65°	238	235	229	223	220	236
75°	127	124	121	118	118	135
85°	33	33	32	32	31	37
90°	3	13	20	26	28	4
95°	51	21	20	26	27	65
105°	277	282	287	293	262	290
115°	517	520	519	521	521	509
125°	727	731	729	732	733	649
135°	902	901	905	907	908	695
145°	1040	1043	1043	1044	1046	650
155°	1140	1141	1139	1142	1140	526
165°	1203	1199	1198	1205	1198	340
175°	1231	1226	1226	1233	1223	117
180°	1231	1231	1231	1231	1231	



TEST NUMBER: P332577-927

CATALOG NUMBER: S124DIP-S575D1205U927-4F0-1E-UDD-F

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	769.3	769.3	769.3	769.3	769.3	769.3	769.3	769.3	769.3	769.3	769.3
2.5°	771.3	771.0	770.6	770.3	770.0	769.2	768.0	766.8	765.6	764.4	765.5
5°	768.7	768.2	767.6	767.1	766.5	765.5	764.0	762.5	761.0	759.5	761.0
7.5°	761.5	761.0	760.5	759.9	759.4	758.3	756.6	754.9	753.2	751.5	752.8
10°	755.1	754.6	754.1	753.5	753.0	751.8	750.0	748.2	746.5	744.7	745.8
12.5°	746.8	746.2	745.7	745.1	744.6	743.4	741.5	739.6	737.7	735.8	737.0
15°	731.7	731.2	730.6	730.1	729.5	728.3	726.2	724.1	722.1	720.0	720.8
17.5°	713.6	712.9	712.3	711.5	710.8	709.6	707.6	705.7	703.7	701.8	702.3
20°	700.3	699.6	698.9	698.2	697.5	696.2	694.1	692.1	690.0	687.9	688.3
22.5°	686.0	685.1	684.2	683.3	682.4	680.9	678.8	676.8	674.7	672.6	673.4
25°	662.7	661.7	660.8	659.8	658.9	657.4	655.5	653.6	651.6	649.7	649.9
27.5°	636.0	635.1	634.1	633.1	632.1	630.7	628.9	627.2	625.3	623.6	623.3
30°	618.3	617.2	616.1	615.0	613.9	612.4	610.7	608.9	607.1	605.4	604.8
32.5°	599.5	598.6	597.5	596.6	595.6	594.1	592.3	590.4	588.5	586.6	586.0
35°	570.2	569.3	568.3	567.4	566.4	564.9	563.0	561.1	559.2	557.3	556.3
37.5°	539.2	538.4	537.5	536.6	535.8	534.3	532.3	530.2	528.1	526.1	525.1
40°	519.0	517.9	516.8	515.8	514.7	513.1	511.0	509.0	506.9	504.9	503.5
42.5°	497.3	496.7	496.1	495.4	494.7	493.2	491.0	488.7	486.4	484.2	482.6
45°	465.4	464.5	463.5	462.6	461.6	460.0	457.8	455.6	453.4	451.2	449.7
47.5°	432.0	431.3	430.7	430.0	429.4	428.0	426.0	424.0	421.9	419.9	418.2
50°	409.3	408.8	408.2	407.7	407.1	405.9	404.0	402.0	400.1	398.2	396.3
52.5°	387.1	386.5	385.8	385.2	384.5	383.2	381.1	379.1	377.1	375.0	373.4
55°	352.0	351.6	351.2	350.8	350.4	349.2	347.3	345.3	343.4	341.5	339.8
57.5°	318.5	318.0	317.5	317.0	316.6	315.4	313.5	311.6	309.7	307.8	306.3
60°	295.2	294.6	293.9	293.2	292.6	291.3	289.5	287.7	286.0	284.2	283.0
62.5°	272.6	272.0	271.4	270.8	270.3	269.0	267.2	265.3	263.4	261.5	260.4
65°	238.5	237.9	237.2	236.5	235.8	234.8	233.5	232.0	230.7	229.3	227.9
67.5°	204.3	203.7	203.0	202.4	201.8	200.8	199.5	198.2	196.9	195.5	194.2
70°	183.1	182.1	181.2	180.2	179.3	178.2	177.1	176.0	174.9	173.8	172.8
72.5°	160.4	159.5	158.5	157.5	156.5	155.7	154.8	153.9	153.0	152.1	151.2
75°	127.0	126.3	125.6	124.9	124.2	123.6	122.9	122.2	121.5	120.8	120.3
77.5°	95.1	94.7	94.4	94.2	93.9	93.4	92.8	92.2	91.6	91.0	90.8
80°	75.8	75.4	75.0	74.6	74.1	73.8	73.6	73.3	73.0	72.7	72.5
82.5°	57.1	56.9	56.7	56.5	56.3	56.2	56.2	56.1	56.0	56.0	55.8
85°	33.3	33.3	33.3	33.3	33.3	33.1	32.9	32.6	32.3	32.1	32.1
87.5°	13.4	13.7	14.0	14.4	14.7	15.1	15.2	15.4	15.7	15.9	16.2
90°	2.8	5.0	7.3	9.5	11.7	13.7	15.4	17.0	18.6	20.3	21.5
92.5°	11.6	11.7	11.9	12.0	12.1	13.0	14.6	16.2	17.9	19.5	20.8
95°	50.6	43.6	36.7	29.8	22.8	19.4	19.6	19.8	20.0	20.3	21.5
97.5°	107.5	111.9	116.2	120.5	124.8	115.6	92.8	69.9	47.1	24.3	24.4
100°	151.0	154.6	158.4	162.0	165.7	153.4	125.2	97.0	68.8	40.5	37.0
102.5°	199.6	202.2	204.9	207.6	210.3	209.8	206.2	202.5	198.8	195.1	157.6
105°	277.0	278.3	279.5	280.7	281.9	283.1	284.2	285.1	286.1	287.2	289.1
107.5°	349.0	349.7	350.3	350.9	351.5	352.5	353.9	355.3	356.6	358.1	358.9
110°	397.7	398.2	398.9	399.5	400.1	401.0	402.3	403.5	404.7	405.9	406.3



TEST NUMBER: P332577-927

CATALOG NUMBER: S124DIP-S575D1205U927-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	444.8	445.9	446.9	448.1	449.2	450.0	450.6	451.1	451.8	452.3	452.3
115°	517.3	517.9	518.6	519.1	519.8	520.0	519.8	519.6	519.4	519.1	519.6
117.5°	582.7	583.4	584.3	585.1	585.9	586.5	587.0	587.5	588.0	588.4	588.3
120°	626.9	627.6	628.5	629.3	630.1	630.4	630.3	630.0	629.8	629.6	630.0
122.5°	668.0	668.6	669.1	669.6	670.0	670.4	670.7	671.0	671.3	671.6	671.8
125°	727.1	728.0	728.8	729.6	730.5	730.6	730.2	729.8	729.4	729.0	729.6
127.5°	783.2	783.3	783.5	783.8	783.9	784.5	785.4	786.4	787.3	788.3	788.1
130°	819.2	819.4	819.7	819.8	820.1	820.5	821.1	821.7	822.3	822.9	823.1
132.5°	852.4	852.7	853.1	853.5	853.8	854.4	855.2	856.0	856.7	857.5	857.7
135°	902.1	901.9	901.7	901.4	901.3	901.6	902.4	903.2	904.0	904.8	905.2
137.5°	946.1	946.2	946.3	946.3	946.4	946.9	947.8	948.7	949.6	950.5	950.9
140°	974.8	975.2	975.6	976.0	976.4	976.8	977.2	977.6	978.0	978.5	979.1
142.5°	1000.5	1001.3	1002.0	1002.7	1003.5	1004.0	1004.2	1004.5	1004.7	1005.0	1005.4
145°	1040.1	1040.8	1041.4	1042.0	1042.6	1042.9	1042.9	1042.9	1042.9	1042.9	1043.1
147.5°	1071.6	1072.8	1073.9	1075.1	1076.2	1076.7	1076.5	1076.3	1076.0	1075.9	1076.0
150°	1094.5	1095.3	1096.1	1096.9	1097.7	1098.0	1097.8	1097.6	1097.4	1097.2	1097.2
152.5°	1113.6	1114.3	1114.9	1115.6	1116.2	1116.3	1116.0	1115.6	1115.2	1114.9	1115.2
155°	1140.5	1140.7	1140.9	1141.1	1141.3	1141.1	1140.5	1139.9	1139.2	1138.6	1139.5
157.5°	1163.1	1163.0	1162.8	1162.8	1162.6	1162.2	1161.5	1160.9	1160.2	1159.4	1160.5
160°	1176.4	1175.8	1175.1	1174.6	1173.9	1173.5	1173.3	1173.1	1172.9	1172.7	1173.9
162.5°	1188.1	1187.4	1186.6	1185.8	1185.0	1184.6	1184.3	1184.2	1183.9	1183.8	1184.9
165°	1203.1	1202.1	1201.0	1200.0	1199.0	1198.5	1198.5	1198.5	1198.5	1198.5	1200.1
167.5°	1214.8	1213.8	1212.8	1211.6	1210.6	1210.0	1209.9	1209.7	1209.7	1209.5	1211.3
170°	1221.5	1220.3	1219.0	1217.8	1216.6	1216.1	1216.2	1216.5	1216.6	1216.9	1218.5
172.5°	1225.9	1224.6	1223.4	1222.2	1221.0	1220.4	1220.7	1220.9	1221.1	1221.3	1222.9
175°	1230.7	1229.5	1228.2	1227.0	1225.7	1225.3	1225.4	1225.7	1225.9	1226.1	1227.9
177.5°	1232.9	1231.8	1230.6	1229.5	1228.3	1227.9	1228.2	1228.5	1228.9	1229.2	1230.5
180°	1230.7	1230.7	1230.7	1230.7	1230.7	1230.7	1230.7	1230.7	1230.7	1230.7	1230.7



TEST NUMBER: P332577-927

CATALOG NUMBER: S124DIP-S575D1205U927-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	769.3	769.3	769.3	769.3	769.3	769.3	769.3	769.3
2.5°	766.6	767.7	768.8	769.3	769.1	769.1	769.0	768.8
5°	762.5	764.0	765.5	766.1	765.8	765.6	765.2	765.0
7.5°	754.0	755.2	756.4	756.9	756.8	756.6	756.5	756.2
10°	746.9	748.0	749.1	749.5	749.2	748.9	748.6	748.4
12.5°	738.2	739.4	740.6	741.0	740.6	740.2	739.9	739.5
15°	721.7	722.5	723.3	723.5	723.1	722.7	722.2	721.8
17.5°	702.8	703.3	703.9	703.9	703.7	703.4	703.1	702.9
20°	688.8	689.2	689.6	689.7	689.4	689.1	688.9	688.6
22.5°	674.1	674.9	675.7	675.7	675.3	674.8	674.3	673.8
25°	650.0	650.1	650.3	650.1	649.5	649.0	648.4	647.8
27.5°	623.0	622.6	622.3	621.8	621.1	620.4	619.7	619.0
30°	604.3	603.7	603.2	602.5	601.8	601.2	600.5	599.8
32.5°	585.3	584.6	584.0	583.3	582.7	581.9	581.2	580.6
35°	555.3	554.4	553.4	552.6	551.9	551.2	550.6	549.9
37.5°	524.0	522.9	521.9	520.9	520.1	519.1	518.2	517.3
40°	502.2	500.7	499.4	498.4	497.6	497.0	496.3	495.6
42.5°	481.0	479.3	477.8	476.7	476.3	475.9	475.4	474.9
45°	448.2	446.7	445.2	444.3	443.9	443.5	443.0	442.6
47.5°	416.5	414.8	413.1	411.8	410.7	409.6	408.6	407.6
50°	394.3	392.4	390.5	389.2	388.3	387.5	386.7	385.9
52.5°	371.6	369.9	368.3	366.9	365.8	364.8	363.8	362.7
55°	338.3	336.6	334.9	333.7	332.9	332.1	331.2	330.4
57.5°	304.8	303.2	301.6	300.4	299.6	298.8	298.0	297.2
60°	281.7	280.5	279.2	278.3	277.6	276.9	276.2	275.5
62.5°	259.3	258.1	257.0	256.1	255.4	254.8	254.1	253.3
65°	226.6	225.2	223.9	222.8	222.1	221.4	220.8	220.1
67.5°	192.9	191.6	190.3	189.5	189.3	189.2	188.9	188.8
70°	171.7	170.6	169.4	168.7	168.3	167.9	167.5	167.1
72.5°	150.4	149.5	148.6	148.0	147.6	147.2	146.8	146.3
75°	119.7	119.1	118.7	118.3	118.1	118.0	117.9	117.7
77.5°	90.6	90.5	90.3	90.1	89.7	89.4	89.0	88.6
80°	72.2	71.9	71.6	71.5	71.3	71.1	71.1	70.9
82.5°	55.6	55.5	55.3	55.1	55.1	54.9	54.7	54.6
85°	32.1	32.1	32.1	32.0	31.8	31.7	31.6	31.4
87.5°	16.4	16.6	16.9	17.0	17.1	17.2	17.3	17.3
90°	22.7	23.9	25.2	26.0	26.4	26.8	27.2	27.6
92.5°	21.9	23.2	24.4	25.1	25.2	25.3	25.3	25.4
95°	22.7	23.9	25.2	25.9	26.1	26.3	26.5	26.7
97.5°	24.6	24.6	24.8	25.0	25.2	25.3	25.6	25.7
100°	33.5	30.1	26.6	25.0	25.2	25.3	25.6	25.7
102.5°	120.1	82.6	45.1	26.4	26.4	26.5	26.5	26.5
105°	290.9	292.7	294.5	291.8	284.4	277.0	269.7	262.4
107.5°	359.9	360.8	361.6	362.5	363.3	364.1	364.8	365.6
110°	406.8	407.2	407.6	408.1	408.7	409.3	410.0	410.5



TEST NUMBER: P332577-927

CATALOG NUMBER: S124DIP-S575D1205U927-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	452.2	452.1	452.0	452.3	453.1	453.9	454.7	455.4
115°	520.0	520.4	520.8	521.0	521.0	521.0	521.0	521.0
117.5°	588.2	588.1	588.0	588.0	587.9	587.8	587.7	587.6
120°	630.4	630.8	631.2	631.2	630.8	630.4	630.0	629.6
122.5°	672.1	672.3	672.6	672.5	672.1	671.7	671.2	670.8
125°	730.2	730.9	731.5	731.9	732.1	732.3	732.5	732.7
127.5°	788.1	787.9	787.8	787.7	787.5	787.3	787.2	787.0
130°	823.3	823.6	823.7	823.8	823.8	823.8	823.8	823.8
132.5°	857.9	858.2	858.3	858.3	858.2	858.0	857.9	857.7
135°	905.6	906.0	906.5	906.9	907.3	907.7	908.1	908.5
137.5°	951.4	951.8	952.3	952.4	952.4	952.2	952.0	952.0
140°	979.7	980.3	981.0	981.4	981.5	981.8	981.9	982.1
142.5°	1005.9	1006.3	1006.8	1007.0	1007.1	1007.1	1007.2	1007.2
145°	1043.3	1043.5	1043.7	1044.0	1044.4	1044.8	1045.3	1045.7
147.5°	1076.2	1076.3	1076.5	1076.7	1076.9	1077.1	1077.3	1077.5
150°	1097.2	1097.2	1097.2	1097.3	1097.5	1097.7	1098.0	1098.1
152.5°	1115.6	1115.9	1116.2	1116.3	1116.2	1116.0	1115.9	1115.8
155°	1140.3	1141.1	1141.9	1142.0	1141.4	1140.7	1140.2	1139.6
157.5°	1161.6	1162.6	1163.7	1163.7	1162.6	1161.6	1160.5	1159.4
160°	1175.1	1176.4	1177.6	1177.6	1176.4	1175.1	1173.9	1172.7
162.5°	1186.2	1187.4	1188.7	1188.6	1187.2	1185.8	1184.4	1183.0
165°	1201.7	1203.4	1205.0	1204.9	1203.1	1201.2	1199.4	1197.5
167.5°	1213.1	1214.9	1216.7	1216.6	1214.6	1212.5	1210.5	1208.4
170°	1220.1	1221.8	1223.4	1223.2	1221.1	1219.1	1217.1	1215.0
172.5°	1224.6	1226.2	1227.8	1227.6	1225.3	1223.1	1220.9	1218.7
175°	1229.8	1231.6	1233.4	1233.1	1230.7	1228.2	1225.7	1223.3
177.5°	1231.8	1233.1	1234.5	1234.1	1232.2	1230.2	1228.2	1226.3
180°	1230.7	1230.7	1230.7	1230.7	1230.7	1230.7	1230.7	1230.7

(END OF REPORT)