

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: P332574-830

Luminaire Tested: **S124DIP-S575D1205U830-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332574-830
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-S575D1205U830-4F0-1E-UDD-D
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1205 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6766.3 lumens
Efficiency: N/A
Efficacy: 137.0 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')
CIE Type: Semi-Indirect

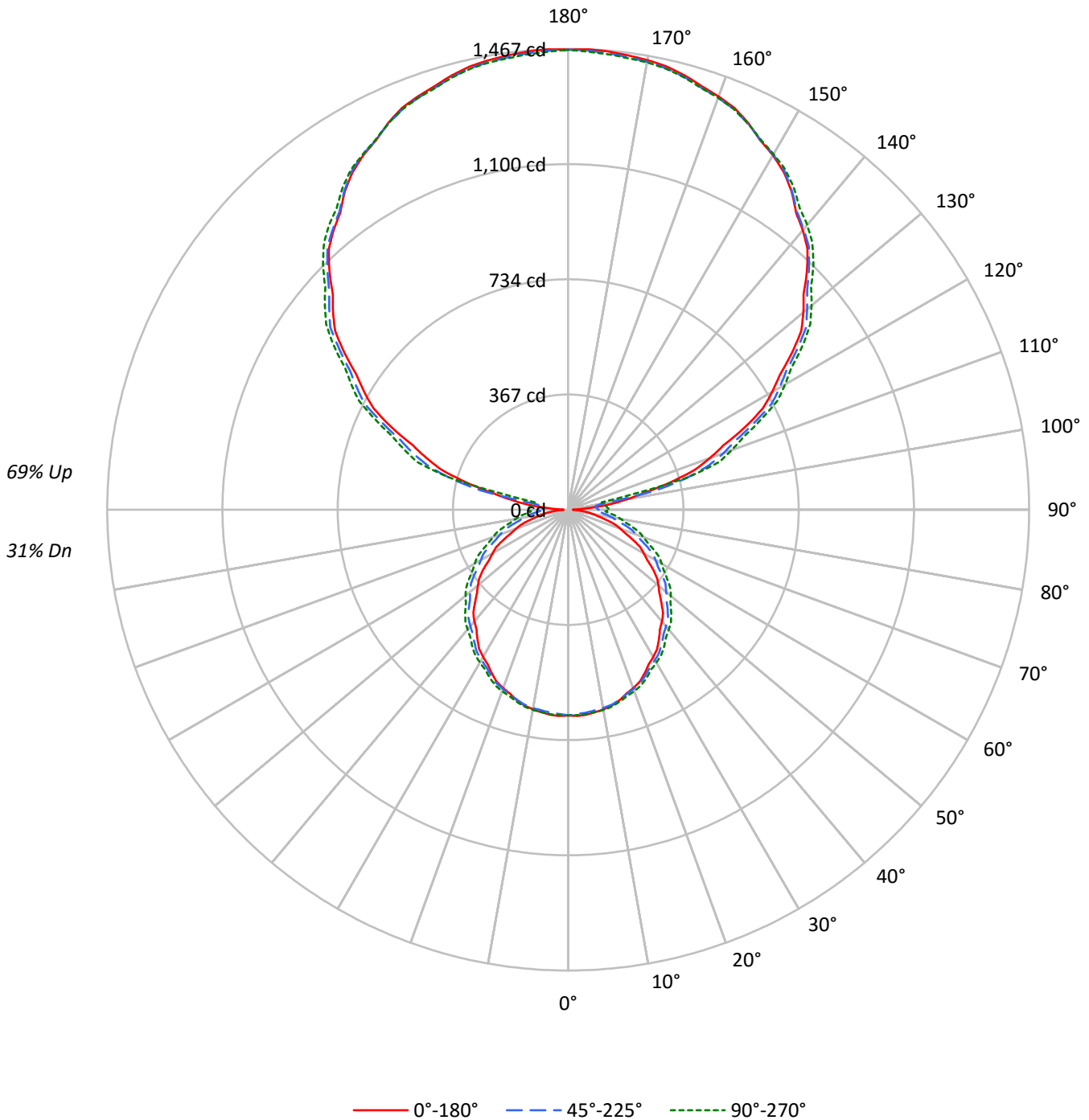
Input Watts (W): 49.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P332574-830

CATALOG NUMBER: S124DIP-S575D1205U830-4F0-1E-UDD-D

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	92	92	92	92	73	73	73	55	55	55	38	38	38	31
1	93	88	84	81	83	79	76	73	63	60	58	47	46	44	33	32	31	24
2	84	77	71	65	75	69	64	59	54	51	47	41	38	36	28	27	26	20
3	77	67	60	54	68	60	54	49	48	43	40	36	33	30	25	23	21	17
4	70	59	51	45	62	53	47	41	42	37	33	32	28	26	22	20	18	14
5	64	52	44	39	57	47	40	35	38	32	29	28	25	22	20	18	16	12
6	59	47	39	33	52	42	35	30	34	29	25	26	22	19	18	16	14	11
7	54	42	34	29	48	38	31	26	30	25	22	23	20	17	16	14	12	9
8	50	38	30	25	45	34	28	23	28	23	19	21	17	15	15	13	11	8
9	47	35	27	22	42	31	25	20	25	20	17	19	16	13	14	11	10	7
10	43	32	25	20	39	29	22	18	23	18	15	18	14	12	13	10	9	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5288	5288	5288
5°	5304	5168	5182
10°	5272	5083	5079
15°	5225	4985	4958
20°	5153	4877	4840
25°	5073	4756	4710
30°	4986	4636	4576
35°	4887	4512	4460
40°	4809	4395	4338
45°	4692	4287	4233
50°	4593	4163	4123
55°	4491	4045	3993
60°	4332	3894	3876
65°	4156	3735	3731
70°	3945	3551	3561
75°	3649	3349	3408
80°	3322	3156	3259
85°	2903	2980	3172



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.0	0.9
10°-20°	177.7	2.6
20°-30°	268.7	4.0
30°-40°	325.1	4.8
40°-50°	343.7	5.1
50°-60°	323.5	4.8
60°-70°	268.4	4.0
70°-80°	188.5	2.8
80°-90°	110.8	1.6
90°-100°	113.4	1.7
100°-110°	366.2	5.4
110°-120°	642.3	9.5
120°-130°	793.2	11.7
130°-140°	837.3	12.4
140°-150°	777.4	11.5
150°-160°	625.7	9.2
160°-170°	403.5	6.0
170°-180°	139.1	2.1
0°-30°	508.4	7.5
0°-40°	833.5	12.3
0°-60°	1500.7	22.2
0°-90°	2068.4	30.6
90°-120°	1121.8	16.6
90°-150°	3529.7	52.2
90°-180°	4698.0	69.4
0°-180°	6766.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	655	655	655	655	655	
5°	656	653	648	654	654	62
15°	629	629	627	633	633	177
25°	575	579	582	589	590	265
35°	503	512	519	529	532	315
45°	420	433	447	459	464	324
55°	329	344	366	380	385	293
65°	227	251	276	293	300	225
75°	126	153	184	204	211	134
85°	39	70	103	124	132	41
90°	15	56	97	124	133	11
95°	70	59	88	113	122	85
105°	336	358	390	415	385	352
115°	620	630	652	670	676	610
125°	868	872	888	904	911	775
135°	1075	1074	1083	1097	1104	828
145°	1238	1241	1241	1246	1252	774
155°	1357	1358	1355	1359	1356	625
165°	1431	1426	1426	1434	1425	404
175°	1464	1458	1459	1467	1456	139
180°	1464	1464	1464	1464	1464	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
2.5°	657.3	657.0	656.6	656.1	655.7	655.1	654.0	653.0	651.9	650.8	651.8
5°	655.7	655.3	654.7	654.2	653.7	652.9	651.8	650.6	649.5	648.4	649.7
7.5°	650.2	649.8	649.5	649.2	648.9	648.4	647.4	646.5	645.5	644.5	646.0
10°	645.5	645.3	645.1	645.0	644.8	644.3	643.5	642.6	641.9	641.0	642.5
12.5°	638.9	638.9	638.9	638.9	638.9	638.6	638.0	637.4	636.9	636.3	637.6
15°	628.6	628.8	628.9	629.1	629.2	629.1	628.6	628.1	627.5	627.1	628.6
17.5°	614.3	614.8	615.3	615.8	616.3	616.5	616.4	616.3	616.2	616.1	617.6
20°	604.4	604.8	605.3	605.9	606.3	606.6	606.8	607.0	607.1	607.3	608.9
22.5°	593.2	593.8	594.5	595.0	595.7	596.2	596.4	596.7	597.0	597.3	599.0
25°	575.0	576.0	577.0	578.0	578.9	579.7	580.1	580.6	581.2	581.6	583.4
27.5°	554.8	556.2	557.6	559.1	560.5	561.6	562.3	563.1	563.8	564.6	566.3
30°	541.3	542.6	543.8	545.2	546.5	547.7	548.8	550.0	551.1	552.3	554.1
32.5°	526.6	528.2	529.7	531.3	532.9	534.3	535.6	536.9	538.1	539.4	541.4
35°	503.1	505.1	507.1	509.0	511.0	512.7	514.3	516.0	517.6	519.2	521.6
37.5°	479.6	481.7	484.0	486.3	488.5	490.7	492.7	494.7	496.7	498.7	501.1
40°	464.3	466.4	468.5	470.6	472.8	474.9	477.2	479.5	481.8	484.1	486.5
42.5°	446.7	449.0	451.4	453.8	456.2	458.7	461.4	464.0	466.7	469.4	472.1
45°	419.5	422.6	425.7	428.9	431.9	435.0	438.1	441.2	444.3	447.4	450.2
47.5°	393.6	396.7	399.9	403.1	406.3	409.7	413.3	416.9	420.5	424.0	427.0
50°	374.8	378.3	381.9	385.6	389.2	392.8	396.3	399.9	403.5	407.1	410.3
52.5°	356.0	359.6	363.2	366.7	370.3	374.2	378.3	382.4	386.5	390.6	393.9
55°	328.6	332.0	335.5	338.8	342.2	346.4	351.3	356.2	361.1	366.0	369.3
57.5°	297.9	302.2	306.4	310.7	314.9	319.4	324.2	329.1	334.0	338.8	342.7
60°	278.0	282.2	286.4	290.7	294.9	299.7	305.1	310.5	315.8	321.2	325.0
62.5°	258.6	263.3	267.9	272.5	277.1	282.1	287.5	292.8	298.3	303.7	307.4
65°	227.3	232.6	237.8	243.0	248.3	253.6	259.1	264.7	270.2	275.8	279.8
67.5°	197.3	202.8	208.4	214.0	219.4	225.2	231.1	237.0	243.0	248.9	253.1
70°	176.7	182.3	187.8	193.4	199.0	204.8	210.9	217.2	223.4	229.6	233.9
72.5°	156.8	162.5	168.1	173.8	179.5	185.6	192.2	198.8	205.4	212.0	216.2
75°	126.1	132.1	138.2	144.2	150.2	156.7	163.5	170.4	177.3	184.1	188.7
77.5°	97.6	104.0	110.4	116.7	123.1	129.9	137.0	144.2	151.4	158.5	163.2
80°	79.9	86.4	93.0	99.5	106.0	112.8	120.1	127.2	134.4	141.6	146.5
82.5°	62.3	69.1	75.9	82.7	89.4	96.4	103.6	110.7	117.9	125.2	130.2
85°	38.8	45.7	52.6	59.4	66.3	73.3	80.7	88.0	95.4	102.6	107.5
87.5°	22.3	29.6	36.8	43.9	51.1	58.4	66.0	73.5	81.1	88.6	93.6
90°	15.0	24.2	33.5	42.6	51.8	60.9	69.8	78.8	87.8	96.7	102.9
92.5°	25.0	30.9	36.9	43.0	49.0	56.5	65.4	74.4	83.3	92.3	98.4
95°	69.7	66.9	64.0	61.1	58.2	60.2	67.1	74.1	81.0	87.9	93.8
97.5°	136.6	146.4	156.2	166.0	175.7	170.3	149.8	129.2	108.7	88.2	92.6
100°	187.7	196.3	204.9	213.6	222.2	212.8	185.6	158.3	131.2	104.0	104.2
102.5°	245.5	252.4	259.4	266.3	273.2	277.6	279.5	281.3	283.1	285.0	244.6
105°	336.3	341.0	345.7	350.4	355.2	361.1	368.3	375.6	382.9	390.1	396.3
107.5°	421.8	425.2	428.6	432.0	435.4	440.7	448.1	455.4	462.8	470.1	475.2
110°	479.0	482.0	485.0	488.0	491.1	496.2	503.3	510.5	517.6	524.8	529.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	534.5	537.8	541.1	544.5	547.8	552.5	558.6	564.8	570.9	577.0	580.6
115°	619.9	622.1	624.2	626.5	628.7	632.3	637.3	642.2	647.1	652.1	656.2
117.5°	697.5	699.4	701.3	703.0	704.9	708.5	714.0	719.3	724.7	730.1	733.4
120°	749.5	750.9	752.4	753.8	755.4	758.3	762.8	767.3	771.8	776.3	780.0
122.5°	798.5	799.3	799.9	800.6	801.3	804.0	808.8	813.6	818.4	823.2	826.8
125°	868.2	868.9	869.8	870.5	871.4	873.5	877.1	880.7	884.3	888.0	891.7
127.5°	934.5	934.6	934.7	934.8	934.9	937.1	941.3	945.6	949.8	954.0	956.9
130°	976.9	977.0	977.0	977.1	977.2	978.9	982.3	985.6	989.0	992.3	995.5
132.5°	1016.3	1016.6	1016.9	1017.2	1017.5	1019.1	1022.1	1025.1	1028.1	1031.1	1034.2
135°	1074.8	1074.5	1074.3	1074.0	1073.7	1074.7	1076.9	1078.9	1081.1	1083.2	1086.3
137.5°	1127.1	1127.0	1127.0	1126.9	1126.8	1127.7	1129.3	1130.9	1132.5	1134.2	1137.0
140°	1161.3	1161.6	1162.0	1162.2	1162.5	1163.1	1163.7	1164.3	1165.0	1165.6	1168.5
142.5°	1191.4	1192.2	1193.1	1193.9	1194.8	1195.2	1195.4	1195.6	1195.8	1196.0	1198.4
145°	1238.3	1238.9	1239.4	1240.0	1240.6	1240.9	1240.9	1240.9	1240.9	1240.9	1242.1
147.5°	1275.7	1277.0	1278.2	1279.3	1280.5	1281.0	1280.8	1280.5	1280.3	1280.1	1280.3
150°	1302.9	1303.7	1304.6	1305.3	1306.2	1306.5	1306.2	1306.0	1305.7	1305.4	1305.4
152.5°	1325.1	1325.9	1326.6	1327.4	1328.1	1328.2	1327.9	1327.4	1326.9	1326.5	1326.9
155°	1357.0	1357.2	1357.4	1357.6	1357.9	1357.6	1357.0	1356.2	1355.5	1354.7	1355.8
157.5°	1383.8	1383.7	1383.6	1383.5	1383.3	1382.8	1382.0	1381.2	1380.4	1379.5	1380.7
160°	1399.7	1398.9	1398.2	1397.5	1396.8	1396.3	1396.0	1395.7	1395.5	1395.2	1396.8
162.5°	1413.6	1412.8	1411.8	1410.9	1409.9	1409.4	1409.1	1408.9	1408.6	1408.4	1409.9
165°	1431.4	1430.2	1429.0	1427.8	1426.5	1426.0	1426.0	1426.0	1426.0	1426.0	1427.9
167.5°	1445.4	1444.2	1442.9	1441.6	1440.4	1439.6	1439.5	1439.4	1439.3	1439.1	1441.2
170°	1453.3	1451.9	1450.4	1449.0	1447.5	1446.9	1447.1	1447.4	1447.6	1447.8	1449.8
172.5°	1458.6	1457.1	1455.7	1454.2	1452.7	1452.1	1452.4	1452.6	1452.8	1453.1	1455.0
175°	1464.2	1462.8	1461.3	1459.9	1458.4	1457.8	1458.0	1458.3	1458.6	1458.8	1460.9
177.5°	1466.9	1465.6	1464.1	1462.8	1461.4	1460.9	1461.3	1461.7	1462.2	1462.5	1464.1
180°	1464.2	1464.2	1464.2	1464.2	1464.2	1464.2	1464.2	1464.2	1464.2	1464.2	1464.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
2.5°	652.7	653.6	654.5	654.9	654.8	654.6	654.5	654.4
5°	651.0	652.2	653.6	654.1	654.0	653.8	653.7	653.5
7.5°	647.5	648.9	650.4	651.1	650.9	650.7	650.5	650.4
10°	643.9	645.5	646.9	647.5	647.4	647.2	647.1	646.9
12.5°	639.0	640.4	641.7	642.3	642.3	642.2	642.2	642.2
15°	630.0	631.5	632.9	633.6	633.5	633.3	633.1	632.9
17.5°	619.1	620.6	622.1	622.7	622.6	622.5	622.4	622.3
20°	610.6	612.2	613.8	614.6	614.6	614.6	614.6	614.6
22.5°	600.6	602.2	603.8	604.8	605.0	605.3	605.6	605.9
25°	585.2	587.0	588.8	589.7	589.9	590.1	590.2	590.4
27.5°	568.0	569.6	571.3	572.2	572.4	572.6	572.8	573.0
30°	555.9	557.7	559.5	560.5	560.8	561.2	561.5	561.8
32.5°	543.5	545.5	547.6	548.7	549.1	549.4	549.8	550.1
35°	523.9	526.1	528.4	529.8	530.3	530.7	531.2	531.8
37.5°	503.4	505.7	508.0	509.4	509.9	510.5	511.0	511.5
40°	489.0	491.4	493.9	495.4	496.1	496.7	497.4	498.0
42.5°	474.9	477.5	480.2	481.8	482.4	482.9	483.4	483.9
45°	453.0	455.7	458.5	460.2	461.1	461.9	462.7	463.5
47.5°	429.8	432.7	435.5	437.4	438.5	439.4	440.5	441.4
50°	413.6	416.9	420.1	422.3	423.2	424.1	425.2	426.1
52.5°	397.2	400.4	403.7	405.8	406.8	407.7	408.7	409.7
55°	372.5	375.8	379.0	381.2	382.1	383.1	384.1	385.0
57.5°	346.6	350.5	354.4	356.8	357.7	358.5	359.5	360.4
60°	328.8	332.5	336.2	338.7	340.1	341.4	342.7	344.0
62.5°	311.1	314.9	318.7	321.1	322.4	323.8	325.1	326.4
65°	283.9	288.0	292.1	294.7	296.1	297.4	298.7	300.0
67.5°	257.2	261.4	265.5	268.2	269.5	270.7	272.0	273.2
70°	238.4	242.8	247.1	250.0	251.1	252.2	253.4	254.5
72.5°	220.5	224.8	229.0	231.8	233.1	234.3	235.6	236.9
75°	193.2	197.7	202.4	205.4	206.8	208.3	209.8	211.2
77.5°	167.9	172.5	177.1	180.2	181.7	183.3	184.8	186.4
80°	151.4	156.2	161.1	164.2	165.5	166.8	168.1	169.5
82.5°	135.2	140.2	145.2	148.5	149.9	151.3	152.7	154.2
85°	112.4	117.3	122.2	125.5	127.1	128.8	130.4	132.1
87.5°	98.6	103.7	108.7	112.0	113.5	115.0	116.5	118.1
90°	109.1	115.3	121.5	125.5	127.2	129.0	130.8	132.6
92.5°	104.4	110.5	116.5	120.3	121.7	123.1	124.5	125.8
95°	99.6	105.5	111.3	115.2	116.9	118.6	120.3	122.0
97.5°	97.0	101.4	105.8	108.9	110.6	112.2	113.8	115.5
100°	104.4	104.7	105.0	105.8	107.2	108.6	110.0	111.3
102.5°	204.2	163.9	123.6	104.0	105.3	106.6	107.9	109.2
105°	402.7	408.9	415.2	414.5	407.1	399.6	392.2	384.7
107.5°	480.3	485.4	490.5	494.1	496.2	498.3	500.4	502.5
110°	533.3	537.5	541.8	544.9	546.9	548.9	551.0	553.0



TEST NUMBER: P332574-830

CATALOG NUMBER: S124DIP-S575D1205U830-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	584.1	587.6	591.2	594.0	596.3	598.4	600.7	602.9
115°	660.3	664.4	668.5	671.1	672.2	673.4	674.5	675.6
117.5°	736.7	740.0	743.3	745.6	746.8	747.9	749.1	750.4
120°	783.7	787.5	791.3	793.5	794.4	795.1	796.0	796.8
122.5°	830.4	833.9	837.4	839.6	840.3	840.9	841.6	842.4
125°	895.6	899.4	903.2	905.8	907.0	908.2	909.5	910.7
127.5°	959.6	962.4	965.2	967.0	968.0	968.8	969.8	970.7
130°	998.6	1001.8	1005.0	1007.1	1008.0	1009.1	1010.0	1011.0
132.5°	1037.3	1040.3	1043.3	1045.3	1046.0	1046.8	1047.5	1048.4
135°	1089.4	1092.5	1095.5	1097.9	1099.3	1100.8	1102.2	1103.7
137.5°	1139.9	1142.8	1145.8	1147.5	1148.2	1148.9	1149.6	1150.3
140°	1171.4	1174.2	1177.0	1179.0	1180.1	1181.1	1182.1	1183.3
142.5°	1200.8	1203.2	1205.6	1207.1	1207.9	1208.6	1209.4	1210.1
145°	1243.3	1244.5	1245.8	1246.9	1248.0	1249.2	1250.4	1251.5
147.5°	1280.7	1281.0	1281.4	1281.9	1282.7	1283.5	1284.2	1285.0
150°	1305.4	1305.4	1305.4	1305.6	1305.8	1306.1	1306.4	1306.6
152.5°	1327.3	1327.7	1328.0	1328.1	1328.0	1327.9	1327.8	1327.6
155°	1356.7	1357.6	1358.7	1358.8	1358.0	1357.3	1356.6	1355.8
157.5°	1382.1	1383.3	1384.6	1384.6	1383.3	1382.1	1380.7	1379.5
160°	1398.2	1399.7	1401.1	1401.1	1399.7	1398.2	1396.8	1395.2
162.5°	1411.4	1412.8	1414.3	1414.2	1412.5	1410.9	1409.2	1407.5
165°	1429.8	1431.8	1433.7	1433.6	1431.4	1429.2	1427.0	1424.8
167.5°	1443.4	1445.5	1447.7	1447.5	1445.1	1442.7	1440.2	1437.8
170°	1451.7	1453.7	1455.7	1455.4	1452.9	1450.5	1448.1	1445.7
172.5°	1457.0	1459.0	1460.8	1460.6	1457.9	1455.3	1452.6	1450.0
175°	1463.2	1465.4	1467.5	1467.2	1464.2	1461.3	1458.4	1455.5
177.5°	1465.7	1467.2	1468.8	1468.4	1466.0	1463.7	1461.3	1459.1
180°	1464.2	1464.2	1464.2	1464.2	1464.2	1464.2	1464.2	1464.2

(END OF REPORT)