

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: P332577-935

Luminaire Tested: **S124DIP-S575D1205U935-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332577-935
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-S575D1205U935-4F0-1E-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: 6287.1 lumens
Efficiency: N/A
Efficacy: 127.3 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

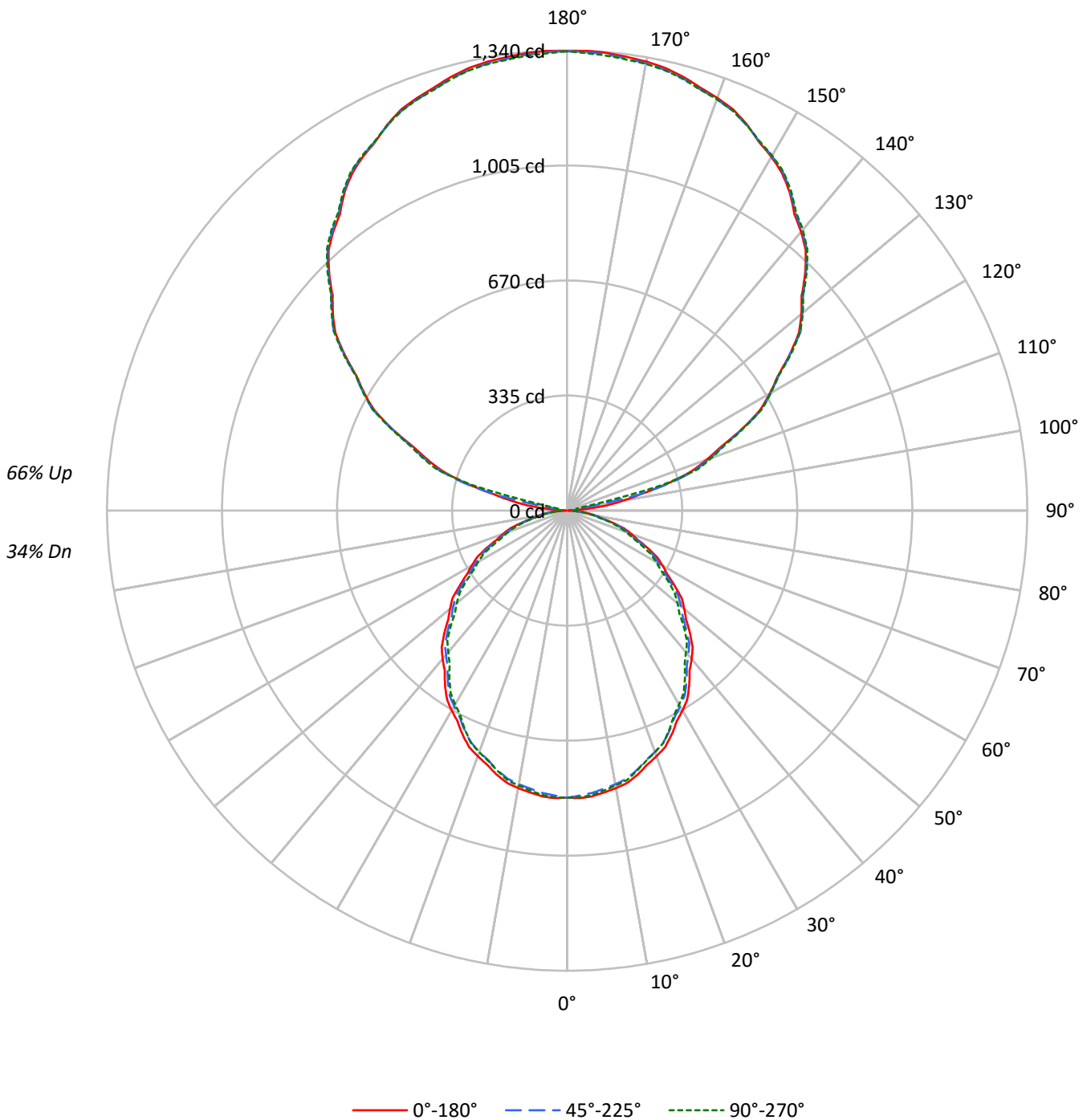
Input Watts (W): 49.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	6750	6750	6750
5°	6771	6689	6738
10°	6728	6634	6668
15°	6647	6541	6557
20°	6539	6424	6430
25°	6415	6290	6272
30°	6264	6134	6077
35°	6107	5969	5889
40°	5945	5782	5676
45°	5775	5599	5492
50°	5588	5436	5267
55°	5384	5225	5054
60°	5181	4986	4836
65°	4951	4762	4569
70°	4697	4459	4286
75°	4304	4095	3989
80°	3831	3673	3584
85°	3353	3233	3168



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.7	1.3
10°-20°	221.9	3.5
20°-30°	326.6	5.2
30°-40°	379.6	6.0
40°-50°	379.6	6.0
50°-60°	332.1	5.3
60°-70°	246.6	3.9
70°-80°	140.1	2.2
80°-90°	44.3	0.7
90°-100°	45.8	0.7
100°-110°	291.7	4.6
110°-120°	558.0	8.9
120°-130°	708.4	11.3
130°-140°	757.9	12.1
140°-150°	708.7	11.3
150°-160°	571.5	9.1
160°-170°	368.6	5.9
170°-180°	127.0	2.0
0°-30°	627.2	10.0
0°-40°	1006.8	16.0
0°-60°	1718.5	27.3
0°-90°	2149.6	34.2
90°-120°	895.4	14.2
90°-150°	3070.4	48.8
90°-180°	4138.0	65.8
0°-180°	6287.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	836	836	836	836	836	
5°	836	833	825	832	832	79
15°	795	792	783	786	784	224
25°	720	715	706	707	704	331
35°	620	615	606	601	598	387
45°	506	501	490	483	481	390
55°	382	380	371	363	359	343
65°	259	256	249	243	239	257
75°	138	135	131	129	128	147
85°	36	36	35	35	34	40
90°	3	14	22	28	30	5
95°	55	23	22	28	29	71
105°	301	307	312	319	285	315
115°	562	565	564	566	566	553
125°	790	794	792	795	796	705
135°	980	980	983	985	987	755
145°	1130	1133	1134	1135	1136	706
155°	1240	1240	1238	1241	1238	571
165°	1308	1303	1303	1310	1302	369
175°	1338	1332	1333	1340	1330	127
180°	1338	1338	1338	1338	1338	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	836.1	836.1	836.1	836.1	836.1	836.1	836.1	836.1	836.1	836.1	836.1
2.5°	838.3	837.9	837.6	837.2	836.9	836.0	834.7	833.4	832.1	830.8	832.0
5°	835.5	834.9	834.3	833.7	833.1	832.0	830.3	828.7	827.1	825.4	827.1
7.5°	827.7	827.1	826.6	826.0	825.4	824.1	822.3	820.5	818.6	816.8	818.2
10°	820.7	820.2	819.6	819.0	818.4	817.1	815.2	813.2	811.3	809.3	810.5
12.5°	811.7	811.1	810.5	809.9	809.3	808.0	805.9	803.8	801.8	799.7	801.0
15°	795.3	794.7	794.1	793.5	792.9	791.5	789.3	787.0	784.8	782.6	783.4
17.5°	775.6	774.8	774.1	773.4	772.6	771.2	769.0	767.0	764.8	762.8	763.3
20°	761.1	760.3	759.7	758.9	758.1	756.6	754.4	752.2	749.9	747.7	748.1
22.5°	745.5	744.6	743.6	742.6	741.7	740.0	737.8	735.6	733.3	731.1	731.9
25°	720.2	719.2	718.2	717.1	716.1	714.5	712.4	710.3	708.3	706.2	706.4
27.5°	691.3	690.3	689.1	688.1	687.0	685.5	683.5	681.7	679.7	677.8	677.4
30°	672.0	670.8	669.6	668.4	667.3	665.6	663.7	661.8	659.9	658.0	657.4
32.5°	651.6	650.6	649.5	648.4	647.4	645.8	643.8	641.7	639.6	637.6	636.9
35°	619.7	618.7	617.7	616.6	615.6	614.0	611.9	609.8	607.8	605.7	604.6
37.5°	586.1	585.1	584.2	583.2	582.3	580.7	578.5	576.3	574.0	571.8	570.7
40°	564.1	562.9	561.7	560.6	559.4	557.7	555.4	553.2	551.0	548.7	547.3
42.5°	540.5	539.8	539.2	538.4	537.7	536.1	533.6	531.2	528.7	526.2	524.5
45°	505.8	504.8	503.8	502.7	501.7	500.0	497.6	495.2	492.8	490.4	488.8
47.5°	469.5	468.8	468.1	467.4	466.7	465.2	463.0	460.8	458.6	456.4	454.5
50°	444.9	444.3	443.7	443.1	442.5	441.2	439.1	437.0	434.9	432.8	430.8
52.5°	420.8	420.1	419.3	418.6	417.9	416.5	414.2	412.1	409.8	407.6	405.8
55°	382.5	382.1	381.7	381.3	380.8	379.5	377.5	375.3	373.2	371.2	369.4
57.5°	346.1	345.6	345.1	344.6	344.1	342.9	340.8	338.7	336.7	334.6	332.9
60°	320.9	320.2	319.4	318.7	318.0	316.6	314.7	312.7	310.8	308.8	307.5
62.5°	296.3	295.7	295.0	294.4	293.8	292.4	290.4	288.3	286.3	284.2	283.0
65°	259.2	258.6	257.8	257.1	256.3	255.2	253.7	252.2	250.7	249.3	247.7
67.5°	222.1	221.4	220.7	220.0	219.3	218.3	216.8	215.4	214.0	212.5	211.1
70°	199.0	197.9	196.9	195.9	194.8	193.7	192.5	191.3	190.1	188.9	187.8
72.5°	174.4	173.3	172.3	171.2	170.1	169.2	168.2	167.3	166.3	165.3	164.4
75°	138.0	137.2	136.6	135.8	135.0	134.3	133.5	132.8	132.1	131.3	130.7
77.5°	103.3	103.0	102.6	102.4	102.0	101.5	100.8	100.2	99.5	98.9	98.7
80°	82.4	82.0	81.5	81.1	80.6	80.2	80.0	79.6	79.4	79.0	78.8
82.5°	62.1	61.8	61.6	61.4	61.2	61.0	61.0	61.0	60.9	60.9	60.6
85°	36.2	36.2	36.2	36.2	36.2	36.0	35.7	35.5	35.1	34.9	34.9
87.5°	14.6	14.9	15.2	15.7	16.0	16.4	16.5	16.8	17.0	17.3	17.6
90°	3.0	5.4	7.9	10.3	12.7	14.9	16.7	18.4	20.2	22.0	23.3
92.5°	12.6	12.7	12.9	13.0	13.2	14.1	15.8	17.7	19.5	21.2	22.6
95°	55.0	47.4	39.9	32.4	24.8	21.1	21.4	21.5	21.8	22.0	23.3
97.5°	116.8	121.6	126.3	131.0	135.7	125.6	100.8	76.0	51.2	26.4	26.5
100°	164.1	168.1	172.1	176.1	180.1	166.8	136.0	105.4	74.7	44.0	40.2
102.5°	216.9	219.8	222.7	225.7	228.6	228.1	224.1	220.1	216.1	212.1	171.3
105°	301.1	302.5	303.8	305.1	306.4	307.7	308.8	309.9	311.0	312.1	314.2
107.5°	379.4	380.0	380.7	381.3	382.0	383.1	384.6	386.2	387.6	389.2	390.1
110°	432.2	432.8	433.5	434.2	434.9	435.8	437.2	438.5	439.9	441.2	441.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	483.5	484.7	485.8	487.0	488.2	489.1	489.7	490.3	491.0	491.6	491.5
115°	562.2	562.9	563.6	564.2	564.9	565.2	564.9	564.7	564.5	564.2	564.7
117.5°	633.3	634.1	635.1	635.9	636.8	637.5	638.0	638.5	639.0	639.5	639.4
120°	681.3	682.2	683.1	684.0	684.8	685.2	685.0	684.8	684.5	684.3	684.8
122.5°	726.1	726.7	727.2	727.7	728.2	728.7	729.0	729.3	729.6	730.0	730.2
125°	790.3	791.3	792.1	793.0	793.9	794.1	793.7	793.2	792.8	792.4	793.0
127.5°	851.2	851.4	851.6	851.9	852.0	852.6	853.7	854.7	855.7	856.8	856.6
130°	890.4	890.6	890.9	891.0	891.3	891.7	892.4	893.0	893.7	894.4	894.6
132.5°	926.4	926.8	927.2	927.6	928.0	928.7	929.4	930.3	931.2	932.0	932.2
135°	980.4	980.2	980.0	979.7	979.6	979.9	980.8	981.6	982.6	983.4	983.9
137.5°	1028.3	1028.4	1028.5	1028.6	1028.6	1029.2	1030.1	1031.1	1032.1	1033.0	1033.5
140°	1059.5	1059.9	1060.3	1060.8	1061.3	1061.7	1062.1	1062.6	1063.0	1063.5	1064.1
142.5°	1087.4	1088.3	1089.1	1089.9	1090.7	1091.2	1091.5	1091.7	1092.0	1092.3	1092.8
145°	1130.5	1131.2	1131.9	1132.5	1133.2	1133.5	1133.5	1133.5	1133.5	1133.5	1133.8
147.5°	1164.7	1166.0	1167.2	1168.5	1169.7	1170.2	1170.0	1169.8	1169.5	1169.3	1169.5
150°	1189.6	1190.4	1191.3	1192.2	1193.1	1193.4	1193.2	1193.0	1192.7	1192.5	1192.5
152.5°	1210.3	1211.1	1211.8	1212.5	1213.1	1213.3	1213.0	1212.5	1212.1	1211.8	1212.1
155°	1239.6	1239.8	1240.0	1240.2	1240.4	1240.2	1239.6	1238.9	1238.2	1237.5	1238.5
157.5°	1264.1	1264.0	1263.9	1263.8	1263.6	1263.2	1262.4	1261.7	1260.9	1260.2	1261.3
160°	1278.6	1277.9	1277.2	1276.6	1275.9	1275.5	1275.2	1275.0	1274.8	1274.5	1275.9
162.5°	1291.3	1290.6	1289.7	1288.8	1288.0	1287.5	1287.2	1287.0	1286.8	1286.6	1287.9
165°	1307.6	1306.5	1305.4	1304.2	1303.1	1302.6	1302.6	1302.6	1302.6	1302.6	1304.3
167.5°	1320.3	1319.2	1318.1	1316.9	1315.8	1315.1	1315.0	1314.8	1314.7	1314.6	1316.6
170°	1327.6	1326.3	1324.9	1323.6	1322.2	1321.7	1321.9	1322.2	1322.3	1322.6	1324.4
172.5°	1332.4	1331.0	1329.7	1328.4	1327.1	1326.5	1326.7	1327.0	1327.1	1327.4	1329.1
175°	1337.6	1336.3	1334.9	1333.6	1332.2	1331.7	1331.9	1332.1	1332.4	1332.6	1334.6
177.5°	1340.0	1338.8	1337.5	1336.3	1335.0	1334.6	1334.9	1335.2	1335.7	1336.0	1337.4
180°	1337.6	1337.6	1337.6	1337.6	1337.6	1337.6	1337.6	1337.6	1337.6	1337.6	1337.6



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	836.1	836.1	836.1	836.1	836.1	836.1	836.1	836.1
2.5°	833.2	834.4	835.6	836.1	835.9	835.9	835.8	835.6
5°	828.7	830.3	832.0	832.7	832.3	832.1	831.7	831.5
7.5°	819.5	820.8	822.1	822.7	822.5	822.3	822.2	821.9
10°	811.8	813.0	814.2	814.6	814.2	814.0	813.6	813.4
12.5°	802.4	803.7	804.9	805.4	804.9	804.5	804.2	803.7
15°	784.4	785.2	786.1	786.4	785.9	785.5	785.0	784.5
17.5°	763.9	764.4	765.0	765.1	764.8	764.5	764.2	764.0
20°	748.6	749.1	749.5	749.6	749.2	749.0	748.7	748.4
22.5°	732.7	733.5	734.3	734.4	733.9	733.4	732.9	732.3
25°	706.5	706.6	706.8	706.5	705.9	705.3	704.7	704.1
27.5°	677.1	676.7	676.3	675.8	675.0	674.3	673.6	672.8
30°	656.8	656.2	655.6	654.9	654.1	653.4	652.6	651.9
32.5°	636.1	635.4	634.7	634.0	633.3	632.5	631.7	631.0
35°	603.6	602.5	601.5	600.6	599.9	599.1	598.4	597.6
37.5°	569.6	568.3	567.2	566.2	565.2	564.2	563.3	562.2
40°	545.8	544.2	542.8	541.7	540.9	540.2	539.4	538.6
42.5°	522.8	521.0	519.3	518.1	517.7	517.2	516.7	516.2
45°	487.2	485.5	483.9	482.8	482.4	482.0	481.5	481.0
47.5°	452.7	450.8	449.0	447.5	446.4	445.2	444.1	443.0
50°	428.6	426.5	424.5	423.0	422.1	421.2	420.3	419.4
52.5°	403.9	402.1	400.3	398.7	397.6	396.5	395.4	394.3
55°	367.6	365.8	364.0	362.7	361.8	360.9	360.0	359.1
57.5°	331.2	329.5	327.8	326.5	325.6	324.8	323.9	323.0
60°	306.2	304.9	303.5	302.5	301.7	301.0	300.2	299.5
62.5°	281.8	280.5	279.3	278.4	277.6	276.9	276.1	275.3
65°	246.2	244.8	243.3	242.2	241.4	240.6	240.0	239.2
67.5°	209.7	208.3	206.8	206.0	205.8	205.6	205.3	205.2
70°	186.6	185.4	184.2	183.4	182.9	182.4	182.0	181.6
72.5°	163.4	162.5	161.5	160.8	160.4	160.0	159.5	159.0
75°	130.1	129.5	129.0	128.5	128.4	128.3	128.1	127.9
77.5°	98.5	98.3	98.2	97.9	97.5	97.1	96.7	96.3
80°	78.4	78.2	77.8	77.7	77.5	77.3	77.2	77.1
82.5°	60.4	60.3	60.1	59.9	59.8	59.7	59.5	59.3
85°	34.9	34.9	34.9	34.8	34.6	34.4	34.4	34.2
87.5°	17.8	18.1	18.3	18.5	18.6	18.7	18.8	18.9
90°	24.7	26.0	27.4	28.2	28.7	29.1	29.5	30.0
92.5°	23.8	25.2	26.5	27.3	27.4	27.5	27.6	27.6
95°	24.7	26.0	27.4	28.2	28.3	28.6	28.8	29.0
97.5°	26.7	26.8	26.9	27.1	27.4	27.6	27.8	28.0
100°	36.4	32.7	28.9	27.1	27.4	27.6	27.8	28.0
102.5°	130.5	89.8	49.0	28.7	28.7	28.8	28.8	28.8
105°	316.2	318.1	320.1	317.1	309.1	301.1	293.2	285.2
107.5°	391.2	392.1	393.0	394.0	394.9	395.7	396.5	397.4
110°	442.1	442.6	443.0	443.5	444.2	444.9	445.6	446.2



TEST NUMBER: P332577-935

CATALOG NUMBER: S124DIP-S575D1205U935-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	491.5	491.4	491.3	491.6	492.5	493.4	494.2	495.0
115°	565.2	565.6	566.0	566.3	566.3	566.3	566.3	566.3
117.5°	639.3	639.2	639.1	639.0	638.9	638.9	638.8	638.7
120°	685.2	685.6	686.0	686.0	685.6	685.2	684.8	684.3
122.5°	730.5	730.7	731.0	730.9	730.5	730.0	729.5	729.1
125°	793.7	794.4	795.0	795.5	795.7	795.9	796.2	796.3
127.5°	856.5	856.4	856.3	856.1	855.9	855.7	855.6	855.4
130°	894.8	895.1	895.3	895.4	895.4	895.4	895.4	895.4
132.5°	932.5	932.7	932.9	932.9	932.7	932.5	932.4	932.2
135°	984.3	984.7	985.2	985.7	986.1	986.5	987.0	987.4
137.5°	1034.1	1034.5	1035.0	1035.2	1035.1	1034.9	1034.7	1034.7
140°	1064.8	1065.5	1066.2	1066.6	1066.8	1067.0	1067.2	1067.5
142.5°	1093.3	1093.7	1094.2	1094.5	1094.6	1094.6	1094.7	1094.7
145°	1133.9	1134.2	1134.4	1134.7	1135.1	1135.6	1136.1	1136.5
147.5°	1169.7	1169.8	1170.0	1170.2	1170.4	1170.7	1170.9	1171.1
150°	1192.5	1192.5	1192.5	1192.7	1192.8	1193.1	1193.3	1193.5
152.5°	1212.5	1212.8	1213.1	1213.2	1213.1	1213.0	1212.9	1212.7
155°	1239.3	1240.2	1241.1	1241.2	1240.5	1239.8	1239.2	1238.5
157.5°	1262.5	1263.6	1264.8	1264.8	1263.6	1262.5	1261.3	1260.2
160°	1277.2	1278.6	1279.9	1279.9	1278.6	1277.2	1275.9	1274.5
162.5°	1289.3	1290.6	1291.9	1291.8	1290.3	1288.8	1287.3	1285.7
165°	1306.1	1307.9	1309.7	1309.6	1307.6	1305.5	1303.6	1301.6
167.5°	1318.5	1320.4	1322.4	1322.2	1320.1	1317.8	1315.6	1313.4
170°	1326.1	1327.9	1329.7	1329.5	1327.2	1325.0	1322.8	1320.6
172.5°	1330.9	1332.7	1334.5	1334.2	1331.8	1329.4	1327.0	1324.6
175°	1336.6	1338.6	1340.6	1340.2	1337.6	1334.9	1332.2	1329.6
177.5°	1338.9	1340.2	1341.7	1341.4	1339.2	1337.0	1334.9	1332.8
180°	1337.6	1337.6	1337.6	1337.6	1337.6	1337.6	1337.6	1337.6

(END OF REPORT)