

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: P332765-930

Luminaire Tested: **S124DIW-S575D1340U930-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332765-930
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: S124DIW-S575D1340U930-4F0-1E-UDD-D
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1340 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6308.9 lumens
Efficiency: N/A
Efficacy: 117.3 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

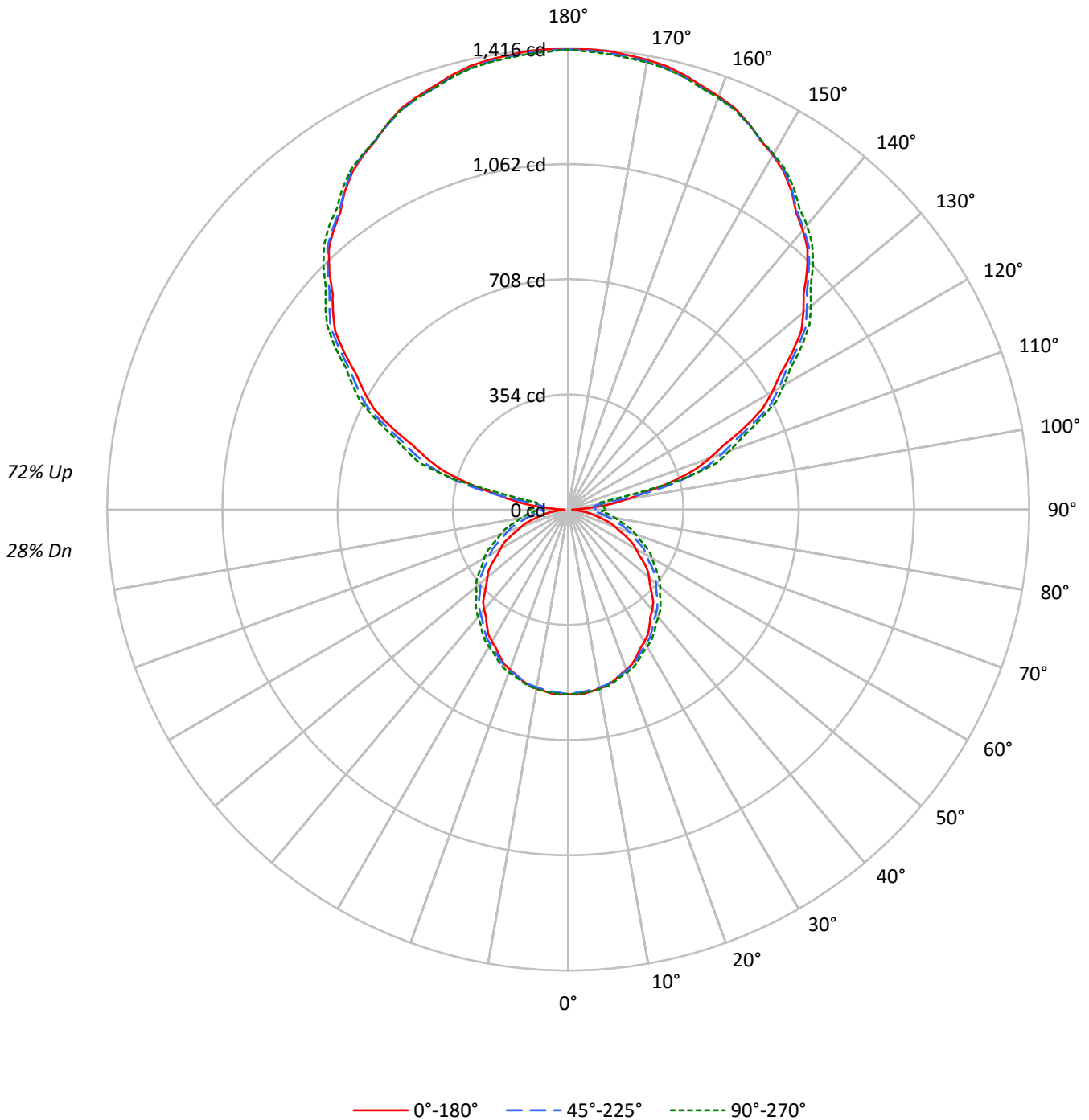
Input Watts (W): 53.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	102	102	102	102	91	91	91	91	71	71	71	53	53	53	36	36	36
1	92	88	84	80	82	79	75	72	61	59	57	46	44	43	31	30	29
2	84	76	70	65	75	68	63	59	53	50	47	40	37	35	27	26	24
3	76	67	60	54	68	60	54	49	47	43	39	35	32	29	24	22	20
4	70	59	51	45	62	53	46	41	41	37	33	31	28	25	21	19	17
5	64	52	44	38	57	47	40	35	37	32	28	28	24	21	19	17	15
6	58	47	39	33	52	42	35	30	33	28	24	25	21	19	17	15	13
7	54	42	34	29	48	38	31	26	30	25	21	22	19	16	15	13	12
8	50	38	30	25	44	34	28	23	27	22	19	20	17	14	14	12	10
9	46	34	27	22	41	31	25	20	25	20	17	19	15	13	13	11	9
10	43	31	24	20	39	28	22	18	23	18	15	17	14	11	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4574	4574	4574
5°	4588	4470	4482
10°	4560	4397	4393
15°	4519	4312	4289
20°	4458	4219	4187
25°	4388	4114	4074
30°	4313	4011	3959
35°	4227	3903	3858
40°	4160	3802	3753
45°	4059	3708	3663
50°	3973	3600	3567
55°	3884	3499	3454
60°	3746	3369	3353
65°	3597	3231	3227
70°	3414	3072	3080
75°	3157	2896	2948
80°	2873	2730	2819
85°	2514	2579	2742



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.6	0.9
10°-20°	153.7	2.4
20°-30°	232.4	3.7
30°-40°	281.2	4.5
40°-50°	297.3	4.7
50°-60°	279.8	4.4
60°-70°	232.1	3.7
70°-80°	163.1	2.6
80°-90°	96.3	1.5
90°-100°	103.1	1.6
100°-110°	348.8	5.5
110°-120°	617.0	9.8
120°-130°	764.1	12.1
130°-140°	807.7	12.8
140°-150°	750.5	11.9
150°-160°	604.1	9.6
160°-170°	389.6	6.2
170°-180°	134.3	2.1
0°-30°	439.8	7.0
0°-40°	721.0	11.4
0°-60°	1298.1	20.6
0°-90°	1789.6	28.4
90°-120°	1068.9	16.9
90°-150°	3391.2	53.8
90°-180°	4519.0	71.6
0°-180°	6308.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	567	567	567	567	567	
5°	567	565	561	566	565	54
15°	544	544	542	548	548	153
25°	497	501	503	510	511	229
35°	435	443	449	458	460	272
45°	363	375	387	397	401	280
55°	284	298	317	329	333	253
65°	197	217	239	254	260	195
75°	109	133	159	176	183	116
85°	34	60	89	107	114	36
90°	13	50	86	110	118	9
95°	66	54	78	101	109	81
105°	324	344	372	394	364	339
115°	598	608	626	642	647	589
125°	838	842	855	870	875	748
135°	1038	1037	1045	1057	1063	799
145°	1196	1198	1198	1203	1208	747
155°	1310	1311	1308	1312	1309	604
165°	1382	1377	1377	1384	1376	390
175°	1414	1408	1409	1417	1405	135
180°	1414	1414	1414	1414	1414	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	566.6	566.6	566.6	566.6	566.6	566.6	566.6	566.6	566.6	566.6	566.6
2.5°	568.6	568.3	567.9	567.5	567.2	566.6	565.7	564.8	563.9	563.0	563.8
5°	567.2	566.8	566.3	565.9	565.5	564.8	563.8	562.8	561.8	560.8	562.0
7.5°	562.4	562.1	561.8	561.6	561.3	560.8	560.0	559.2	558.3	557.5	558.8
10°	558.3	558.2	558.0	557.9	557.7	557.3	556.6	555.9	555.2	554.5	555.8
12.5°	552.7	552.7	552.7	552.6	552.6	552.4	551.9	551.4	550.9	550.4	551.5
15°	543.7	543.9	544.0	544.1	544.3	544.1	543.7	543.3	542.8	542.4	543.7
17.5°	531.4	531.8	532.2	532.6	533.1	533.3	533.2	533.1	533.0	533.0	534.2
20°	522.8	523.2	523.6	524.1	524.5	524.7	524.9	525.1	525.1	525.3	526.7
22.5°	513.1	513.6	514.2	514.7	515.3	515.7	515.9	516.2	516.4	516.7	518.1
25°	497.4	498.2	499.1	499.9	500.8	501.4	501.8	502.2	502.7	503.1	504.7
27.5°	479.9	481.1	482.3	483.6	484.9	485.8	486.4	487.1	487.7	488.4	489.8
30°	468.2	469.4	470.4	471.6	472.7	473.8	474.7	475.7	476.7	477.8	479.3
32.5°	455.5	456.9	458.2	459.6	461.0	462.2	463.3	464.4	465.5	466.6	468.3
35°	435.2	436.9	438.6	440.3	442.0	443.5	444.9	446.4	447.8	449.1	451.2
37.5°	414.8	416.7	418.7	420.6	422.6	424.4	426.2	428.0	429.7	431.4	433.4
40°	401.6	403.4	405.3	407.1	409.0	410.8	412.8	414.7	416.8	418.7	420.9
42.5°	386.4	388.4	390.4	392.6	394.6	396.8	399.1	401.4	403.7	406.0	408.4
45°	362.9	365.6	368.3	371.0	373.6	376.3	379.0	381.6	384.3	387.0	389.4
47.5°	340.5	343.2	345.9	348.7	351.5	354.4	357.5	360.6	363.7	366.8	369.3
50°	324.2	327.3	330.4	333.5	336.6	339.7	342.8	345.9	349.0	352.1	354.9
52.5°	307.9	311.0	314.1	317.2	320.3	323.7	327.3	330.8	334.4	337.9	340.7
55°	284.2	287.1	290.2	293.1	296.0	299.6	303.9	308.1	312.3	316.6	319.4
57.5°	257.7	261.4	265.1	268.7	272.4	276.3	280.5	284.7	288.9	293.1	296.4
60°	240.4	244.1	247.8	251.4	255.1	259.3	263.9	268.6	273.2	277.9	281.1
62.5°	223.7	227.7	231.7	235.7	239.7	244.0	248.7	253.3	258.0	262.7	265.9
65°	196.7	201.2	205.7	210.2	214.7	219.4	224.1	228.9	233.7	238.6	242.1
67.5°	170.6	175.5	180.3	185.1	189.8	194.8	199.9	205.0	210.2	215.3	218.9
70°	152.9	157.7	162.5	167.3	172.1	177.2	182.5	187.8	193.2	198.6	202.4
72.5°	135.7	140.6	145.4	150.3	155.2	160.5	166.2	171.9	177.7	183.4	187.0
75°	109.1	114.3	119.5	124.7	130.0	135.6	141.5	147.4	153.4	159.2	163.2
77.5°	84.4	89.9	95.5	100.9	106.5	112.3	118.5	124.7	130.9	137.1	141.1
80°	69.1	74.8	80.5	86.1	91.7	97.6	103.9	110.1	116.3	122.5	126.7
82.5°	53.9	59.8	65.6	71.5	77.4	83.4	89.6	95.8	102.0	108.3	112.6
85°	33.6	39.5	45.5	51.4	57.3	63.4	69.8	76.1	82.5	88.8	93.0
87.5°	19.4	25.7	32.0	38.2	44.5	50.9	57.5	64.0	70.5	77.1	81.4
90°	13.3	21.5	29.8	38.0	46.2	54.3	62.2	70.2	78.1	86.1	91.6
92.5°	23.0	28.2	33.4	38.6	43.9	50.4	58.4	66.3	74.3	82.2	87.6
95°	66.4	63.1	59.8	56.4	53.1	54.4	60.4	66.4	72.5	78.4	83.6
97.5°	131.0	140.0	149.0	157.9	167.0	161.2	140.7	120.2	99.7	79.2	83.0
100°	180.4	188.3	196.2	204.1	212.0	202.4	175.5	148.6	121.6	94.7	94.6
102.5°	236.3	242.6	248.9	255.2	261.5	265.2	266.4	267.6	268.7	269.9	230.5
105°	324.0	328.2	332.5	336.7	341.0	346.3	352.6	359.1	365.4	371.8	377.5
107.5°	406.6	409.6	412.6	415.6	418.7	423.5	430.0	436.5	443.0	449.6	454.0
110°	461.9	464.6	467.2	469.9	472.6	477.1	483.5	489.8	496.2	502.6	506.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	515.5	518.5	521.5	524.6	527.6	531.8	537.2	542.6	547.9	553.3	556.3
115°	598.1	600.1	602.1	604.1	606.0	609.1	613.4	617.7	622.0	626.2	629.8
117.5°	673.1	674.7	676.5	678.2	679.9	683.1	687.8	692.5	697.2	702.0	704.8
120°	723.3	724.7	726.0	727.4	728.8	731.4	735.2	739.1	743.0	746.8	750.1
122.5°	770.7	771.4	772.0	772.7	773.3	775.7	779.9	784.1	788.3	792.5	795.6
125°	838.0	838.8	839.5	840.3	841.1	843.1	846.1	849.2	852.2	855.3	858.7
127.5°	902.1	902.2	902.3	902.4	902.5	904.4	908.2	912.0	915.8	919.6	922.0
130°	943.1	943.1	943.2	943.4	943.5	944.9	947.9	950.9	953.8	956.8	959.6
132.5°	981.1	981.5	981.7	981.9	982.3	983.7	986.4	989.1	991.8	994.6	997.2
135°	1037.6	1037.4	1037.1	1036.9	1036.7	1037.5	1039.4	1041.4	1043.3	1045.2	1048.0
137.5°	1088.2	1088.1	1088.1	1088.0	1087.9	1088.7	1090.2	1091.8	1093.2	1094.8	1097.3
140°	1121.1	1121.4	1121.8	1122.2	1122.5	1122.9	1123.6	1124.1	1124.8	1125.4	1127.9
142.5°	1150.2	1151.0	1151.9	1152.7	1153.5	1154.1	1154.2	1154.5	1154.6	1154.8	1156.9
145°	1195.6	1196.1	1196.7	1197.3	1197.8	1198.2	1198.2	1198.2	1198.2	1198.2	1199.2
147.5°	1231.8	1233.0	1234.1	1235.3	1236.5	1237.0	1236.7	1236.5	1236.2	1236.0	1236.3
150°	1258.0	1258.8	1259.6	1260.4	1261.2	1261.4	1261.3	1261.0	1260.8	1260.5	1260.5
152.5°	1279.4	1280.2	1280.9	1281.7	1282.4	1282.5	1282.1	1281.7	1281.2	1280.8	1281.2
155°	1310.3	1310.4	1310.7	1310.9	1311.2	1310.9	1310.3	1309.5	1308.8	1308.1	1309.0
157.5°	1336.3	1336.1	1335.9	1335.8	1335.7	1335.2	1334.4	1333.6	1332.9	1332.0	1333.3
160°	1351.4	1350.8	1350.1	1349.3	1348.7	1348.2	1347.9	1347.7	1347.4	1347.3	1348.7
162.5°	1365.0	1364.1	1363.3	1362.4	1361.5	1360.9	1360.7	1360.4	1360.2	1359.9	1361.3
165°	1382.2	1381.0	1379.8	1378.6	1377.4	1376.9	1376.9	1376.9	1376.9	1376.9	1378.8
167.5°	1395.7	1394.5	1393.3	1392.0	1390.8	1390.1	1390.0	1389.8	1389.7	1389.5	1391.6
170°	1403.3	1401.9	1400.4	1399.1	1397.7	1397.1	1397.3	1397.5	1397.7	1398.0	1399.9
172.5°	1408.3	1407.0	1405.6	1404.1	1402.7	1402.2	1402.4	1402.6	1402.8	1403.0	1404.9
175°	1413.9	1412.4	1411.0	1409.7	1408.2	1407.6	1407.9	1408.1	1408.3	1408.6	1410.7
177.5°	1416.4	1415.1	1413.7	1412.4	1411.1	1410.6	1411.0	1411.4	1411.8	1412.2	1413.6
180°	1413.9	1413.9	1413.9	1413.9	1413.9	1413.9	1413.9	1413.9	1413.9	1413.9	1413.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	566.6	566.6	566.6	566.6	566.6	566.6	566.6	566.6
2.5°	564.6	565.3	566.1	566.5	566.4	566.2	566.1	566.1
5°	563.1	564.2	565.3	565.8	565.7	565.6	565.4	565.2
7.5°	560.1	561.3	562.6	563.2	563.0	562.9	562.7	562.6
10°	557.0	558.3	559.5	560.1	560.0	559.9	559.7	559.5
12.5°	552.8	553.9	555.1	555.6	555.6	555.5	555.5	555.5
15°	544.9	546.3	547.5	548.0	548.0	547.8	547.6	547.5
17.5°	535.5	536.8	538.1	538.7	538.6	538.5	538.3	538.3
20°	528.2	529.5	530.9	531.7	531.7	531.7	531.7	531.7
22.5°	519.5	520.9	522.3	523.2	523.3	523.6	523.8	524.1
25°	506.2	507.8	509.3	510.1	510.3	510.5	510.5	510.7
27.5°	491.3	492.7	494.2	495.0	495.1	495.3	495.5	495.6
30°	480.9	482.4	484.0	484.9	485.1	485.4	485.7	486.0
32.5°	470.1	471.9	473.7	474.7	475.0	475.2	475.6	475.8
35°	453.1	455.1	457.1	458.3	458.7	459.1	459.5	460.0
37.5°	435.5	437.4	439.4	440.7	441.1	441.6	442.0	442.5
40°	423.0	425.1	427.2	428.5	429.1	429.7	430.2	430.8
42.5°	410.7	413.0	415.4	416.8	417.3	417.7	418.2	418.6
45°	391.8	394.2	396.6	398.1	398.8	399.6	400.2	401.0
47.5°	371.8	374.3	376.7	378.4	379.3	380.1	381.0	381.8
50°	357.8	360.6	363.4	365.3	366.1	366.9	367.8	368.6
52.5°	343.6	346.3	349.2	351.0	351.9	352.7	353.5	354.4
55°	322.2	325.1	327.8	329.7	330.5	331.4	332.2	333.0
57.5°	299.8	303.2	306.6	308.6	309.4	310.1	311.0	311.8
60°	284.4	287.6	290.8	293.0	294.2	295.3	296.4	297.6
62.5°	269.1	272.4	275.7	277.8	278.9	280.1	281.2	282.3
65°	245.6	249.2	252.7	254.9	256.1	257.2	258.4	259.5
67.5°	222.5	226.1	229.7	232.0	233.1	234.2	235.3	236.4
70°	206.2	210.0	213.8	216.2	217.2	218.2	219.2	220.1
72.5°	190.7	194.4	198.1	200.5	201.6	202.7	203.8	204.9
75°	167.1	171.0	175.0	177.7	178.9	180.2	181.5	182.7
77.5°	145.2	149.2	153.2	155.9	157.2	158.6	159.9	161.3
80°	130.9	135.1	139.3	142.0	143.2	144.3	145.4	146.6
82.5°	116.9	121.2	125.6	128.4	129.6	130.9	132.1	133.4
85°	97.3	101.5	105.7	108.6	110.0	111.4	112.8	114.2
87.5°	85.9	90.3	94.6	97.4	98.8	100.1	101.4	102.8
90°	97.1	102.6	108.0	111.6	113.2	114.8	116.4	118.0
92.5°	92.9	98.3	103.7	107.0	108.3	109.5	110.7	111.9
95°	88.9	94.1	99.3	102.6	104.2	105.7	107.2	108.7
97.5°	86.8	90.7	94.5	97.2	98.6	100.0	101.5	103.0
100°	94.3	94.2	94.0	94.5	95.7	96.9	98.2	99.4
102.5°	191.0	151.6	112.3	93.1	94.2	95.4	96.5	97.7
105°	383.1	388.7	394.4	393.5	386.2	378.9	371.5	364.2
107.5°	458.5	463.1	467.6	470.8	472.7	474.6	476.5	478.4
110°	510.0	513.6	517.4	520.2	522.0	523.8	525.6	527.5



TEST NUMBER: P332765-930

CATALOG NUMBER: S124DIW-S575D1340U930-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	559.4	562.4	565.4	567.9	570.0	572.0	574.0	576.0
115°	633.4	637.0	640.5	642.8	643.8	644.8	645.8	646.8
117.5°	707.6	710.5	713.3	715.3	716.3	717.3	718.4	719.4
120°	753.3	756.7	759.9	761.9	762.5	763.3	763.9	764.6
122.5°	798.7	801.8	804.9	806.7	807.2	807.8	808.4	808.9
125°	862.1	865.4	868.9	871.1	872.1	873.2	874.3	875.4
127.5°	924.4	926.8	929.2	930.7	931.6	932.3	933.1	933.8
130°	962.4	965.2	967.9	969.7	970.5	971.4	972.2	973.1
132.5°	999.9	1002.5	1005.2	1006.8	1007.5	1008.2	1008.9	1009.5
135°	1050.7	1053.4	1056.1	1058.2	1059.5	1060.8	1062.1	1063.4
137.5°	1099.9	1102.4	1105.1	1106.6	1107.2	1107.7	1108.3	1108.9
140°	1130.5	1133.0	1135.5	1137.3	1138.2	1139.1	1140.1	1141.0
142.5°	1159.0	1161.2	1163.4	1164.7	1165.3	1166.0	1166.6	1167.3
145°	1200.3	1201.3	1202.5	1203.5	1204.5	1205.6	1206.6	1207.6
147.5°	1236.6	1236.9	1237.2	1237.7	1238.4	1239.1	1239.7	1240.4
150°	1260.5	1260.5	1260.5	1260.6	1260.9	1261.1	1261.3	1261.6
152.5°	1281.6	1282.0	1282.3	1282.5	1282.3	1282.1	1282.1	1281.9
155°	1310.0	1310.9	1311.9	1312.0	1311.3	1310.6	1309.9	1309.2
157.5°	1334.5	1335.7	1336.9	1336.9	1335.7	1334.5	1333.3	1332.0
160°	1350.1	1351.4	1352.9	1352.9	1351.4	1350.1	1348.7	1347.3
162.5°	1362.8	1364.2	1365.5	1365.5	1363.9	1362.3	1360.7	1359.1
165°	1380.6	1382.5	1384.4	1384.2	1382.2	1380.1	1377.9	1375.8
167.5°	1393.7	1395.7	1397.8	1397.7	1395.3	1392.9	1390.7	1388.3
170°	1401.7	1403.6	1405.5	1405.2	1403.0	1400.6	1398.2	1395.9
172.5°	1406.8	1408.8	1410.6	1410.3	1407.7	1405.2	1402.6	1400.1
175°	1412.8	1415.0	1417.1	1416.7	1413.9	1411.0	1408.2	1405.4
177.5°	1415.2	1416.7	1418.2	1417.8	1415.5	1413.3	1411.0	1408.8
180°	1413.9	1413.9	1413.9	1413.9	1413.9	1413.9	1413.9	1413.9

(END OF REPORT)