

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: P332765-927

Luminaire Tested: **S124DIW-S575D1340U927-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332765-927
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: S124DIW-S575D1340U927-4F0-1E-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: 6130.0 lumens
Efficiency: N/A
Efficacy: 113.9 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

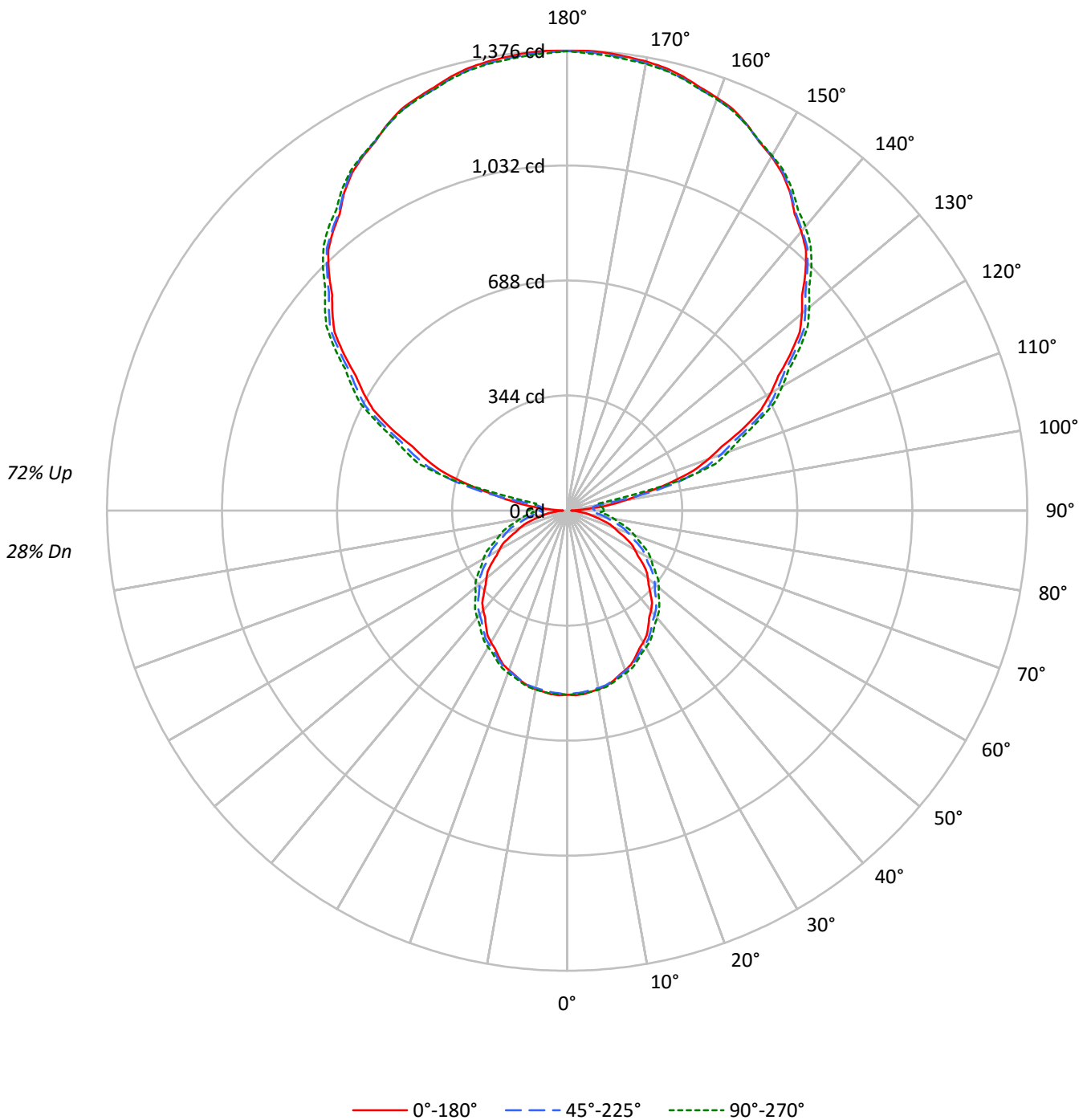
Input Watts (W): 53.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4444	4444	4444
5°	4458	4343	4355
10°	4431	4273	4269
15°	4391	4190	4167
20°	4331	4099	4068
25°	4264	3998	3958
30°	4191	3896	3847
35°	4108	3792	3748
40°	4041	3694	3646
45°	3943	3603	3558
50°	3860	3498	3465
55°	3775	3400	3356
60°	3640	3274	3257
65°	3494	3139	3136
70°	3315	2985	2993
75°	3068	2814	2864
80°	2794	2652	2738
85°	2439	2507	2665



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.1	0.9
10°-20°	149.4	2.4
20°-30°	225.8	3.7
30°-40°	273.2	4.5
40°-50°	288.9	4.7
50°-60°	271.9	4.4
60°-70°	225.6	3.7
70°-80°	158.4	2.6
80°-90°	93.5	1.5
90°-100°	100.2	1.6
100°-110°	339.0	5.5
110°-120°	599.5	9.8
120°-130°	742.4	12.1
130°-140°	784.8	12.8
140°-150°	729.2	11.9
150°-160°	587.0	9.6
160°-170°	378.6	6.2
170°-180°	130.5	2.1
0°-30°	427.3	7.0
0°-40°	700.6	11.4
0°-60°	1261.3	20.6
0°-90°	1738.8	28.4
90°-120°	1038.6	16.9
90°-150°	3295.1	53.8
90°-180°	4391.0	71.6
0°-180°	6130.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	550	550	550	550	550	
5°	551	549	545	550	549	52
15°	528	529	527	532	532	149
25°	483	487	489	495	496	223
35°	423	430	436	445	447	265
45°	353	364	376	386	390	272
55°	276	289	308	319	324	246
65°	191	211	232	247	252	189
75°	106	129	155	171	178	113
85°	33	59	86	104	111	35
90°	13	49	84	107	115	9
95°	65	52	76	98	106	79
105°	315	334	361	383	354	330
115°	581	590	608	623	628	572
125°	814	818	831	845	851	727
135°	1008	1008	1016	1027	1033	777
145°	1162	1164	1164	1169	1173	726
155°	1273	1274	1271	1275	1272	587
165°	1343	1338	1338	1345	1337	379
175°	1374	1368	1369	1377	1366	131
180°	1374	1374	1374	1374	1374	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	550.5	550.5	550.5	550.5	550.5	550.5	550.5	550.5	550.5	550.5	550.5
2.5°	552.5	552.2	551.8	551.4	551.1	550.6	549.7	548.8	547.9	547.0	547.8
5°	551.1	550.7	550.2	549.9	549.5	548.7	547.8	546.8	545.9	544.9	546.1
7.5°	546.4	546.1	545.9	545.7	545.4	544.9	544.2	543.4	542.5	541.7	543.0
10°	542.5	542.3	542.2	542.1	541.9	541.5	540.8	540.1	539.5	538.8	540.0
12.5°	537.0	537.0	537.0	536.9	536.9	536.7	536.2	535.8	535.3	534.8	535.9
15°	528.3	528.5	528.5	528.7	528.9	528.7	528.3	527.9	527.4	527.0	528.3
17.5°	516.3	516.7	517.1	517.5	518.0	518.2	518.1	518.0	517.9	517.8	519.0
20°	507.9	508.3	508.7	509.2	509.6	509.8	510.0	510.2	510.2	510.4	511.7
22.5°	498.6	499.1	499.6	500.1	500.7	501.1	501.3	501.5	501.8	502.0	503.4
25°	483.3	484.1	485.0	485.8	486.6	487.2	487.6	488.0	488.5	488.9	490.4
27.5°	466.3	467.5	468.7	469.9	471.1	472.0	472.6	473.2	473.9	474.5	475.9
30°	455.0	456.1	457.1	458.2	459.3	460.3	461.3	462.2	463.2	464.2	465.7
32.5°	442.6	443.9	445.2	446.6	447.9	449.1	450.1	451.2	452.3	453.4	455.0
35°	422.9	424.5	426.2	427.8	429.4	430.9	432.3	433.7	435.1	436.4	438.4
37.5°	403.1	404.9	406.8	408.7	410.6	412.4	414.1	415.8	417.5	419.1	421.1
40°	390.2	392.0	393.8	395.5	397.4	399.2	401.1	403.0	405.0	406.9	408.9
42.5°	375.4	377.4	379.4	381.4	383.4	385.6	387.8	390.0	392.3	394.5	396.8
45°	352.6	355.2	357.8	360.4	363.0	365.6	368.2	370.8	373.4	376.0	378.3
47.5°	330.8	333.4	336.1	338.8	341.5	344.4	347.4	350.4	353.4	356.4	358.9
50°	315.0	318.0	321.0	324.1	327.1	330.1	333.1	336.1	339.1	342.1	344.8
52.5°	299.2	302.2	305.2	308.2	311.2	314.5	318.0	321.4	324.9	328.3	331.1
55°	276.2	279.0	281.9	284.8	287.6	291.1	295.2	299.4	303.5	307.6	310.4
57.5°	250.4	254.0	257.5	261.1	264.7	268.5	272.5	276.6	280.7	284.8	288.0
60°	233.6	237.2	240.7	244.3	247.9	251.9	256.4	260.9	265.5	270.0	273.1
62.5°	217.4	221.3	225.1	229.0	232.9	237.1	241.6	246.1	250.7	255.2	258.3
65°	191.1	195.5	199.9	204.2	208.7	213.2	217.8	222.4	227.1	231.8	235.2
67.5°	165.8	170.5	175.2	179.8	184.4	189.3	194.2	199.2	204.2	209.2	212.7
70°	148.5	153.2	157.9	162.6	167.2	172.1	177.3	182.5	187.7	193.0	196.6
72.5°	131.8	136.6	141.3	146.1	150.8	156.0	161.5	167.1	172.6	178.2	181.7
75°	106.0	111.1	116.1	121.2	126.3	131.7	137.4	143.2	149.0	154.7	158.6
77.5°	82.0	87.4	92.8	98.1	103.5	109.2	115.2	121.2	127.2	133.2	137.1
80°	67.2	72.6	78.2	83.7	89.1	94.8	100.9	106.9	113.0	119.0	123.1
82.5°	52.4	58.1	63.8	69.5	75.2	81.0	87.1	93.1	99.1	105.2	109.4
85°	32.6	38.4	44.2	49.9	55.7	61.6	67.8	74.0	80.2	86.3	90.4
87.5°	18.9	25.0	31.1	37.2	43.3	49.4	55.8	62.2	68.5	74.9	79.1
90°	12.9	20.9	28.9	36.9	44.9	52.8	60.4	68.2	75.9	83.7	89.0
92.5°	22.3	27.4	32.5	37.5	42.6	49.0	56.7	64.4	72.2	79.9	85.1
95°	64.6	61.3	58.1	54.8	51.6	52.8	58.7	64.6	70.4	76.2	81.3
97.5°	127.3	136.0	144.7	153.4	162.2	156.6	136.7	116.8	96.9	76.9	80.6
100°	175.3	183.0	190.6	198.3	206.0	196.7	170.6	144.4	118.2	92.1	91.9
102.5°	229.6	235.7	241.9	248.0	254.1	257.7	258.9	260.0	261.1	262.2	223.9
105°	314.8	318.9	323.1	327.2	331.3	336.4	342.6	348.9	355.1	361.2	366.8
107.5°	395.1	398.0	400.9	403.9	406.8	411.5	417.8	424.1	430.5	436.8	441.2
110°	448.9	451.4	454.0	456.6	459.2	463.6	469.8	475.9	482.1	488.3	491.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	500.9	503.8	506.8	509.7	512.6	516.7	522.0	527.2	532.3	537.6	540.5
115°	581.1	583.0	585.0	586.9	588.8	591.8	596.0	600.2	604.4	608.5	612.0
117.5°	654.0	655.6	657.3	658.9	660.6	663.7	668.3	672.9	677.5	682.1	684.8
120°	702.8	704.2	705.4	706.8	708.1	710.7	714.4	718.1	721.9	725.6	728.8
122.5°	748.8	749.5	750.1	750.8	751.4	753.7	757.8	761.8	766.0	770.0	773.0
125°	814.2	815.0	815.7	816.5	817.3	819.2	822.1	825.1	828.1	831.1	834.3
127.5°	876.5	876.6	876.7	876.8	876.9	878.8	882.5	886.1	889.9	893.5	895.9
130°	916.3	916.4	916.5	916.6	916.7	918.1	921.1	923.9	926.8	929.7	932.4
132.5°	953.3	953.6	953.9	954.1	954.4	955.8	958.5	961.1	963.7	966.4	968.9
135°	1008.2	1008.0	1007.7	1007.5	1007.3	1008.1	1010.0	1011.9	1013.7	1015.6	1018.3
137.5°	1057.3	1057.2	1057.2	1057.2	1057.1	1057.8	1059.3	1060.8	1062.2	1063.7	1066.2
140°	1089.3	1089.6	1090.0	1090.4	1090.7	1091.1	1091.7	1092.3	1092.9	1093.4	1095.9
142.5°	1117.6	1118.4	1119.2	1120.0	1120.8	1121.3	1121.5	1121.7	1121.9	1122.0	1124.1
145°	1161.7	1162.2	1162.8	1163.3	1163.9	1164.2	1164.2	1164.2	1164.2	1164.2	1165.2
147.5°	1196.8	1198.0	1199.1	1200.2	1201.4	1201.9	1201.7	1201.4	1201.2	1200.9	1201.3
150°	1222.3	1223.1	1223.8	1224.6	1225.4	1225.7	1225.5	1225.3	1225.0	1224.8	1224.8
152.5°	1243.2	1243.9	1244.6	1245.3	1246.0	1246.2	1245.8	1245.3	1244.9	1244.5	1244.9
155°	1273.1	1273.3	1273.5	1273.7	1274.0	1273.7	1273.1	1272.4	1271.7	1271.1	1271.9
157.5°	1298.4	1298.2	1298.1	1297.9	1297.8	1297.4	1296.6	1295.8	1295.1	1294.3	1295.5
160°	1313.1	1312.5	1311.8	1311.1	1310.4	1310.0	1309.7	1309.5	1309.2	1309.1	1310.4
162.5°	1326.3	1325.4	1324.6	1323.7	1322.9	1322.3	1322.1	1321.8	1321.6	1321.4	1322.7
165°	1343.0	1341.8	1340.7	1339.5	1338.4	1337.8	1337.8	1337.8	1337.8	1337.8	1339.7
167.5°	1356.1	1354.9	1353.8	1352.6	1351.4	1350.7	1350.6	1350.4	1350.3	1350.1	1352.2
170°	1363.5	1362.2	1360.7	1359.4	1358.0	1357.5	1357.6	1357.9	1358.1	1358.4	1360.2
172.5°	1368.4	1367.1	1365.7	1364.3	1362.9	1362.4	1362.6	1362.9	1363.0	1363.3	1365.1
175°	1373.8	1372.4	1371.0	1369.7	1368.3	1367.7	1367.9	1368.2	1368.4	1368.7	1370.7
177.5°	1376.3	1375.0	1373.6	1372.4	1371.1	1370.6	1371.0	1371.4	1371.7	1372.1	1373.6
180°	1373.8	1373.8	1373.8	1373.8	1373.8	1373.8	1373.8	1373.8	1373.8	1373.8	1373.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	550.5	550.5	550.5	550.5	550.5	550.5	550.5	550.5
2.5°	548.6	549.3	550.1	550.4	550.3	550.2	550.1	550.0
5°	547.2	548.2	549.3	549.8	549.7	549.5	549.4	549.2
7.5°	544.2	545.4	546.7	547.2	547.1	546.9	546.8	546.7
10°	541.2	542.5	543.7	544.2	544.2	544.0	543.8	543.7
12.5°	537.1	538.2	539.3	539.9	539.9	539.8	539.8	539.8
15°	529.5	530.8	532.0	532.5	532.4	532.3	532.1	532.0
17.5°	520.3	521.6	522.8	523.4	523.3	523.2	523.1	523.0
20°	513.2	514.5	515.9	516.6	516.6	516.6	516.6	516.6
22.5°	504.8	506.1	507.5	508.3	508.5	508.7	509.0	509.2
25°	491.9	493.4	494.9	495.7	495.8	496.0	496.1	496.2
27.5°	477.4	478.7	480.1	480.9	481.1	481.3	481.4	481.6
30°	467.2	468.7	470.2	471.1	471.3	471.7	471.9	472.2
32.5°	456.8	458.5	460.3	461.2	461.5	461.8	462.1	462.3
35°	440.3	442.2	444.1	445.3	445.7	446.1	446.5	446.9
37.5°	423.1	425.0	427.0	428.2	428.6	429.0	429.4	429.9
40°	411.0	413.0	415.1	416.4	416.9	417.5	418.0	418.6
42.5°	399.1	401.3	403.6	405.0	405.4	405.8	406.3	406.7
45°	380.7	383.0	385.3	386.8	387.5	388.2	388.9	389.6
47.5°	361.2	363.7	366.1	367.7	368.5	369.3	370.2	371.0
50°	347.6	350.4	353.1	354.9	355.7	356.5	357.4	358.1
52.5°	333.8	336.5	339.3	341.0	341.9	342.7	343.5	344.4
55°	313.1	315.8	318.5	320.4	321.2	322.0	322.8	323.6
57.5°	291.3	294.6	297.9	299.8	300.6	301.3	302.1	302.9
60°	276.3	279.5	282.6	284.7	285.8	286.9	288.0	289.1
62.5°	261.5	264.7	267.8	269.9	271.0	272.1	273.2	274.3
65°	238.6	242.1	245.5	247.7	248.8	249.9	251.0	252.2
67.5°	216.2	219.7	223.2	225.4	226.5	227.5	228.6	229.7
70°	200.3	204.1	207.7	210.1	211.0	212.0	212.9	213.9
72.5°	185.3	188.9	192.5	194.8	195.9	196.9	198.0	199.1
75°	162.4	166.2	170.1	172.6	173.8	175.1	176.3	177.5
77.5°	141.1	145.0	148.9	151.5	152.7	154.1	155.3	156.7
80°	127.2	131.3	135.4	138.0	139.1	140.2	141.3	142.4
82.5°	113.6	117.8	122.1	124.8	126.0	127.1	128.3	129.6
85°	94.5	98.6	102.7	105.5	106.9	108.2	109.6	111.0
87.5°	83.4	87.7	91.9	94.7	96.0	97.3	98.5	99.9
90°	94.3	99.7	105.0	108.4	110.0	111.5	113.1	114.6
92.5°	90.3	95.5	100.8	104.0	105.2	106.4	107.6	108.8
95°	86.3	91.4	96.5	99.7	101.2	102.7	104.2	105.6
97.5°	84.4	88.1	91.8	94.4	95.8	97.2	98.6	100.1
100°	91.7	91.5	91.3	91.8	93.0	94.2	95.4	96.6
102.5°	185.6	147.3	109.1	90.5	91.6	92.7	93.8	94.9
105°	372.2	377.7	383.2	382.4	375.3	368.1	361.0	353.9
107.5°	445.5	450.0	454.3	457.4	459.3	461.1	463.0	464.9
110°	495.5	499.1	502.7	505.4	507.2	509.0	510.7	512.5



TEST NUMBER: P332765-927

CATALOG NUMBER: S124DIW-S575D1340U927-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	543.5	546.4	549.4	551.8	553.8	555.8	557.7	559.7
115°	615.4	618.9	622.3	624.6	625.5	626.5	627.5	628.4
117.5°	687.5	690.3	693.1	695.0	696.0	697.0	698.0	699.0
120°	732.0	735.2	738.4	740.3	740.9	741.6	742.3	742.9
122.5°	776.0	779.0	782.0	783.9	784.3	784.9	785.4	785.9
125°	837.7	840.9	844.2	846.4	847.4	848.4	849.5	850.6
127.5°	898.2	900.5	902.9	904.4	905.1	905.9	906.7	907.4
130°	935.1	937.8	940.5	942.2	943.0	943.9	944.7	945.5
132.5°	971.5	974.1	976.7	978.3	978.9	979.6	980.2	980.9
135°	1020.9	1023.5	1026.2	1028.2	1029.4	1030.7	1032.0	1033.2
137.5°	1068.7	1071.2	1073.7	1075.2	1075.8	1076.3	1076.9	1077.4
140°	1098.4	1100.9	1103.4	1105.0	1106.0	1106.8	1107.8	1108.7
142.5°	1126.2	1128.3	1130.4	1131.7	1132.3	1132.9	1133.5	1134.2
145°	1166.3	1167.3	1168.4	1169.4	1170.4	1171.4	1172.4	1173.4
147.5°	1201.5	1201.8	1202.1	1202.6	1203.2	1204.0	1204.6	1205.2
150°	1224.8	1224.8	1224.8	1224.9	1225.1	1225.3	1225.6	1225.8
152.5°	1245.2	1245.6	1245.9	1246.1	1245.9	1245.8	1245.7	1245.5
155°	1272.9	1273.7	1274.7	1274.8	1274.1	1273.4	1272.7	1272.1
157.5°	1296.6	1297.8	1299.0	1299.0	1297.8	1296.6	1295.5	1294.3
160°	1311.8	1313.1	1314.5	1314.5	1313.1	1311.8	1310.4	1309.1
162.5°	1324.1	1325.5	1326.8	1326.7	1325.2	1323.7	1322.1	1320.6
165°	1341.5	1343.3	1345.1	1345.0	1343.0	1340.9	1338.9	1336.8
167.5°	1354.2	1356.1	1358.2	1358.0	1355.7	1353.4	1351.2	1348.9
170°	1362.0	1363.8	1365.6	1365.4	1363.2	1360.9	1358.6	1356.3
172.5°	1366.9	1368.8	1370.6	1370.3	1367.8	1365.3	1362.9	1360.4
175°	1372.8	1374.8	1376.9	1376.5	1373.8	1371.0	1368.3	1365.6
177.5°	1375.1	1376.5	1378.0	1377.6	1375.4	1373.2	1371.0	1368.8
180°	1373.8	1373.8	1373.8	1373.8	1373.8	1373.8	1373.8	1373.8

(END OF REPORT)