

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: P332765-935

Luminaire Tested: **S124DIW-S575D1340U935-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332765-935
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: S124DIW-S575D1340U935-4F0-1E-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: 6662.5 lumens
Efficiency: N/A
Efficacy: 123.8 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

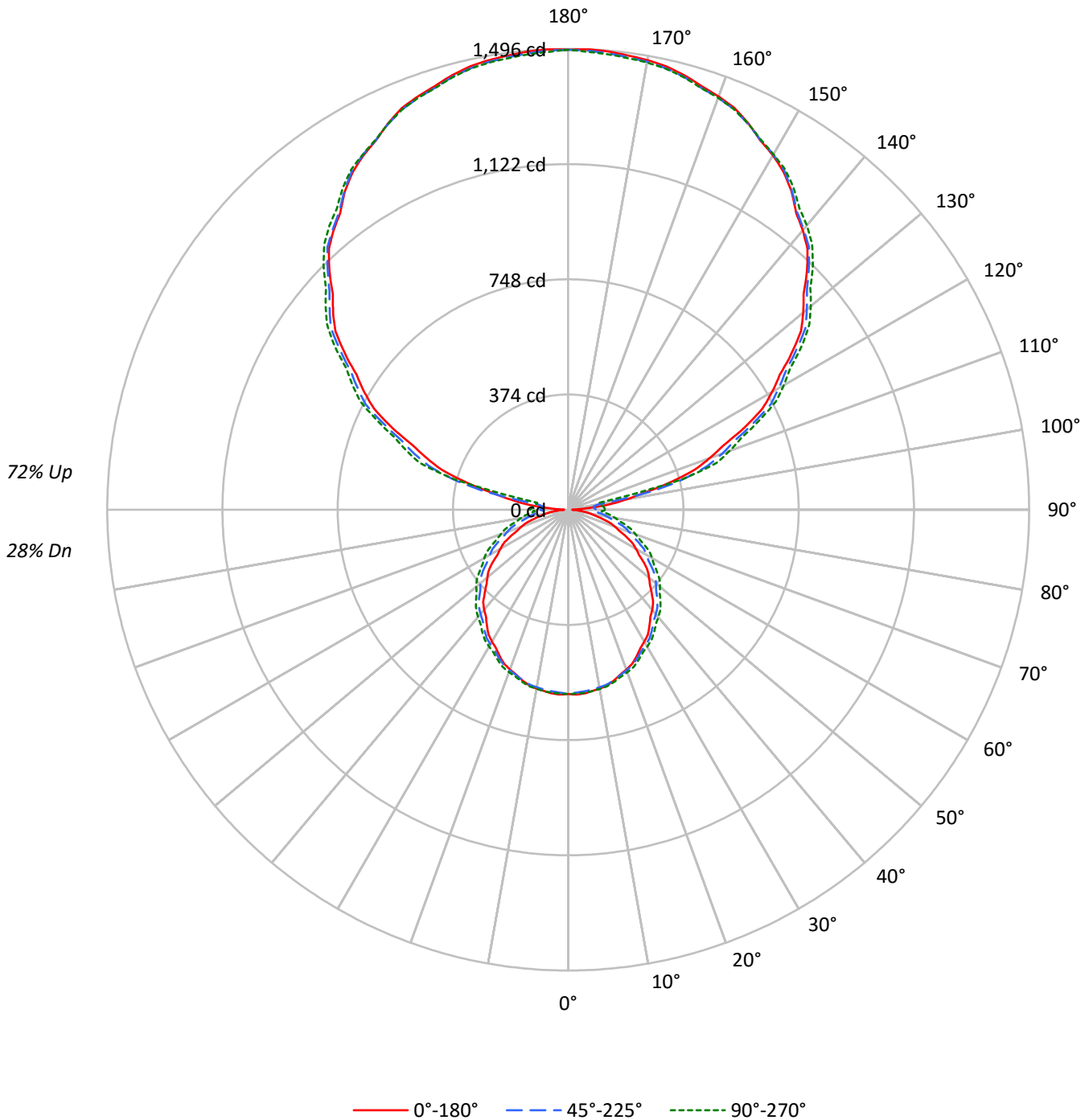
Input Watts (W): 53.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332765-935

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Luminous Intensity Polar Plot





TEST NUMBER: P332765-935

CATALOG NUMBER: S124DIW-S575D1340U935-4F0-1E-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	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°	4830	4830	4830
5°	4845	4721	4734
10°	4816	4644	4639
15°	4772	4554	4529
20°	4707	4455	4422
25°	4634	4345	4302
30°	4555	4235	4181
35°	4464	4122	4074
40°	4393	4015	3964
45°	4286	3916	3867
50°	4195	3803	3767
55°	4102	3695	3648
60°	3957	3557	3541
65°	3798	3411	3409
70°	3603	3243	3253
75°	3334	3060	3114
80°	3035	2882	2977
85°	2656	2725	2896



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.7	0.9
10°-20°	162.3	2.4
20°-30°	245.5	3.7
30°-40°	297.0	4.5
40°-50°	314.0	4.7
50°-60°	295.5	4.4
60°-70°	245.2	3.7
70°-80°	172.2	2.6
80°-90°	101.7	1.5
90°-100°	108.9	1.6
100°-110°	368.4	5.5
110°-120°	651.6	9.8
120°-130°	806.9	12.1
130°-140°	853.0	12.8
140°-150°	792.5	11.9
150°-160°	638.0	9.6
160°-170°	411.5	6.2
170°-180°	141.8	2.1
0°-30°	464.5	7.0
0°-40°	761.4	11.4
0°-60°	1370.9	20.6
0°-90°	1889.9	28.4
90°-120°	1128.9	16.9
90°-150°	3581.3	53.8
90°-180°	4773.0	71.6
0°-180°	6662.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	598	598	598	598	598	
5°	599	597	592	597	597	57
15°	574	575	573	578	578	162
25°	525	529	531	538	539	242
35°	460	468	474	483	486	288
45°	383	396	409	420	423	296
55°	300	314	334	347	352	267
65°	208	229	252	268	274	206
75°	115	140	168	186	193	123
85°	36	64	94	113	121	38
90°	14	53	91	116	125	10
95°	70	57	83	107	115	86
105°	342	363	393	416	385	359
115°	632	642	661	678	683	622
125°	885	889	903	919	924	790
135°	1096	1095	1104	1116	1123	844
145°	1263	1265	1265	1270	1275	789
155°	1384	1385	1382	1385	1383	638
165°	1460	1454	1454	1462	1453	412
175°	1493	1487	1488	1496	1484	142
180°	1493	1493	1493	1493	1493	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3
2.5°	600.5	600.1	599.8	599.3	599.0	598.4	597.4	596.5	595.5	594.5	595.4
5°	599.0	598.6	598.1	597.6	597.2	596.4	595.4	594.3	593.3	592.3	593.5
7.5°	593.9	593.6	593.3	593.1	592.8	592.3	591.4	590.6	589.6	588.8	590.1
10°	589.6	589.4	589.3	589.2	589.0	588.6	587.8	587.0	586.3	585.6	586.9
12.5°	583.7	583.7	583.7	583.6	583.6	583.3	582.8	582.3	581.8	581.3	582.5
15°	574.2	574.4	574.5	574.6	574.8	574.6	574.2	573.8	573.3	572.8	574.2
17.5°	561.2	561.6	562.1	562.5	563.0	563.2	563.1	563.0	562.9	562.8	564.1
20°	552.1	552.5	552.9	553.5	553.9	554.1	554.3	554.5	554.6	554.7	556.2
22.5°	541.9	542.4	543.0	543.5	544.2	544.6	544.8	545.1	545.4	545.6	547.2
25°	525.3	526.2	527.1	528.0	528.8	529.5	529.9	530.4	530.9	531.3	533.0
27.5°	506.8	508.1	509.4	510.7	512.0	513.0	513.7	514.4	515.1	515.7	517.3
30°	494.5	495.7	496.8	498.0	499.2	500.3	501.4	502.4	503.4	504.5	506.2
32.5°	481.0	482.5	483.9	485.3	486.8	488.1	489.2	490.4	491.5	492.8	494.6
35°	459.6	461.4	463.2	464.9	466.7	468.4	469.8	471.4	472.9	474.3	476.5
37.5°	438.1	440.1	442.1	444.2	446.3	448.2	450.0	451.9	453.7	455.6	457.7
40°	424.1	426.0	428.0	429.9	431.9	433.9	435.9	438.0	440.1	442.2	444.4
42.5°	408.0	410.2	412.3	414.6	416.7	419.0	421.5	423.9	426.4	428.8	431.3
45°	383.2	386.1	388.9	391.8	394.5	397.4	400.2	403.0	405.9	408.7	411.2
47.5°	359.6	362.4	365.3	368.2	371.2	374.3	377.5	380.8	384.1	387.4	390.0
50°	342.3	345.6	348.9	352.2	355.5	358.8	362.1	365.3	368.6	371.9	374.8
52.5°	325.2	328.5	331.7	335.0	338.3	341.8	345.6	349.3	353.1	356.8	359.8
55°	300.1	303.2	306.4	309.5	312.6	316.4	320.9	325.4	329.8	334.3	337.3
57.5°	272.2	276.0	279.9	283.8	287.7	291.8	296.2	300.7	305.1	309.5	313.1
60°	253.9	257.8	261.7	265.5	269.4	273.8	278.7	283.6	288.5	293.4	296.9
62.5°	236.3	240.5	244.7	248.9	253.1	257.7	262.6	267.5	272.5	277.4	280.8
65°	207.7	212.5	217.2	222.0	226.8	231.7	236.7	241.8	246.8	251.9	255.6
67.5°	180.2	185.3	190.4	195.4	200.4	205.7	211.1	216.5	222.0	227.4	231.2
70°	161.4	166.5	171.6	176.7	181.8	187.1	192.7	198.4	204.1	209.7	213.7
72.5°	143.3	148.4	153.6	158.8	163.9	169.5	175.6	181.6	187.6	193.6	197.5
75°	115.2	120.7	126.2	131.7	137.2	143.2	149.4	155.7	162.0	168.2	172.4
77.5°	89.1	95.0	100.8	106.6	112.4	118.6	125.2	131.7	138.3	144.8	149.0
80°	73.0	79.0	85.0	90.9	96.9	103.1	109.7	116.2	122.8	129.3	133.8
82.5°	56.9	63.1	69.3	75.5	81.7	88.1	94.6	101.2	107.7	114.3	118.9
85°	35.5	41.8	48.0	54.2	60.5	67.0	73.7	80.4	87.1	93.8	98.2
87.5°	20.5	27.1	33.8	40.4	47.0	53.7	60.7	67.6	74.5	81.5	86.0
90°	14.0	22.7	31.4	40.1	48.8	57.3	65.7	74.1	82.5	90.9	96.7
92.5°	24.3	29.8	35.3	40.8	46.3	53.2	61.6	70.0	78.4	86.8	92.5
95°	70.2	66.6	63.1	59.6	56.1	57.4	63.8	70.2	76.5	82.8	88.3
97.5°	138.4	147.8	157.3	166.8	176.3	170.2	148.6	126.9	105.3	83.6	87.6
100°	190.5	198.9	207.2	215.5	223.9	213.8	185.4	157.0	128.5	100.0	99.9
102.5°	249.5	256.1	262.9	269.5	276.2	280.1	281.4	282.6	283.8	285.0	243.4
105°	342.2	346.6	351.1	355.6	360.1	365.7	372.4	379.2	385.9	392.6	398.6
107.5°	429.4	432.6	435.8	438.9	442.1	447.2	454.1	461.0	467.9	474.8	479.5
110°	487.8	490.6	493.4	496.3	499.1	503.9	510.6	517.3	524.0	530.7	534.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	544.4	547.6	550.8	554.0	557.2	561.6	567.3	573.0	578.6	584.3	587.5
115°	631.6	633.7	635.8	637.9	640.0	643.3	647.8	652.3	656.9	661.3	665.1
117.5°	710.8	712.6	714.4	716.2	718.0	721.3	726.3	731.3	736.3	741.3	744.3
120°	763.9	765.3	766.7	768.2	769.6	772.4	776.4	780.5	784.6	788.7	792.1
122.5°	813.9	814.6	815.3	816.0	816.7	819.2	823.6	828.0	832.5	836.9	840.2
125°	884.9	885.8	886.6	887.4	888.3	890.4	893.5	896.8	900.0	903.3	906.8
127.5°	952.7	952.8	952.9	953.0	953.1	955.1	959.2	963.1	967.2	971.1	973.7
130°	995.9	996.0	996.1	996.3	996.3	997.9	1001.1	1004.2	1007.3	1010.5	1013.4
132.5°	1036.1	1036.5	1036.7	1037.0	1037.3	1038.9	1041.7	1044.6	1047.4	1050.3	1053.1
135°	1095.8	1095.5	1095.3	1095.0	1094.8	1095.7	1097.7	1099.8	1101.7	1103.8	1106.7
137.5°	1149.2	1149.1	1149.1	1149.0	1148.9	1149.7	1151.3	1153.0	1154.5	1156.2	1158.8
140°	1184.0	1184.3	1184.6	1185.1	1185.4	1185.9	1186.5	1187.1	1187.8	1188.4	1191.1
142.5°	1214.7	1215.6	1216.4	1217.3	1218.1	1218.7	1218.9	1219.2	1219.3	1219.5	1221.8
145°	1262.7	1263.2	1263.8	1264.4	1265.0	1265.3	1265.3	1265.3	1265.3	1265.3	1266.4
147.5°	1300.8	1302.1	1303.3	1304.5	1305.8	1306.3	1306.1	1305.8	1305.5	1305.3	1305.6
150°	1328.5	1329.4	1330.2	1331.0	1331.9	1332.1	1332.0	1331.7	1331.5	1331.2	1331.2
152.5°	1351.2	1351.9	1352.7	1353.5	1354.3	1354.4	1354.0	1353.5	1353.1	1352.6	1353.1
155°	1383.7	1383.9	1384.1	1384.4	1384.7	1384.4	1383.7	1382.9	1382.2	1381.5	1382.4
157.5°	1411.2	1411.0	1410.8	1410.7	1410.6	1410.1	1409.2	1408.3	1407.6	1406.7	1408.0
160°	1427.2	1426.5	1425.7	1425.0	1424.3	1423.7	1423.5	1423.2	1423.0	1422.8	1424.3
162.5°	1441.5	1440.5	1439.7	1438.7	1437.8	1437.2	1436.9	1436.7	1436.4	1436.1	1437.6
165°	1459.7	1458.4	1457.2	1455.9	1454.7	1454.1	1454.1	1454.1	1454.1	1454.1	1456.0
167.5°	1473.9	1472.7	1471.4	1470.1	1468.8	1468.0	1467.9	1467.7	1467.6	1467.4	1469.6
170°	1482.0	1480.5	1478.9	1477.5	1476.0	1475.4	1475.6	1475.8	1476.1	1476.4	1478.3
172.5°	1487.3	1485.8	1484.4	1482.8	1481.4	1480.7	1481.0	1481.3	1481.4	1481.7	1483.7
175°	1493.1	1491.6	1490.1	1488.7	1487.1	1486.5	1486.8	1487.0	1487.3	1487.5	1489.8
177.5°	1495.8	1494.4	1493.0	1491.6	1490.2	1489.7	1490.1	1490.6	1490.9	1491.3	1492.9
180°	1493.1	1493.1	1493.1	1493.1	1493.1	1493.1	1493.1	1493.1	1493.1	1493.1	1493.1



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	598.3	598.3	598.3	598.3	598.3	598.3	598.3	598.3
2.5°	596.2	597.0	597.9	598.2	598.1	598.0	597.9	597.8
5°	594.7	595.8	597.0	597.5	597.4	597.3	597.1	596.9
7.5°	591.5	592.8	594.2	594.8	594.6	594.4	594.3	594.2
10°	588.2	589.6	590.9	591.5	591.4	591.2	591.1	590.9
12.5°	583.8	585.0	586.2	586.8	586.8	586.7	586.7	586.7
15°	575.5	576.9	578.2	578.8	578.7	578.5	578.3	578.2
17.5°	565.5	566.9	568.3	568.9	568.8	568.7	568.5	568.4
20°	557.8	559.2	560.7	561.5	561.5	561.5	561.5	561.5
22.5°	548.6	550.1	551.6	552.5	552.7	552.9	553.2	553.5
25°	534.6	536.2	537.9	538.7	538.9	539.1	539.2	539.3
27.5°	518.8	520.3	521.9	522.7	522.9	523.1	523.2	523.4
30°	507.8	509.5	511.1	512.0	512.3	512.6	512.9	513.2
32.5°	496.5	498.3	500.2	501.3	501.6	501.9	502.2	502.5
35°	478.5	480.6	482.7	484.0	484.4	484.8	485.3	485.8
37.5°	459.9	461.9	464.1	465.4	465.8	466.3	466.7	467.3
40°	446.7	448.9	451.2	452.5	453.1	453.7	454.3	455.0
42.5°	433.8	436.2	438.7	440.1	440.7	441.1	441.6	442.0
45°	413.8	416.3	418.8	420.4	421.2	422.0	422.7	423.4
47.5°	392.6	395.3	397.9	399.6	400.5	401.4	402.3	403.2
50°	377.8	380.8	383.7	385.7	386.6	387.4	388.4	389.3
52.5°	362.8	365.8	368.8	370.7	371.6	372.5	373.3	374.3
55°	340.3	343.3	346.2	348.2	349.0	350.0	350.9	351.7
57.5°	316.6	320.2	323.7	325.9	326.7	327.5	328.4	329.2
60°	300.3	303.8	307.1	309.4	310.6	311.9	313.1	314.3
62.5°	284.2	287.7	291.1	293.3	294.5	295.8	297.0	298.2
65°	259.3	263.1	266.8	269.2	270.4	271.6	272.9	274.1
67.5°	235.0	238.8	242.5	245.0	246.2	247.3	248.5	249.6
70°	217.7	221.8	225.8	228.3	229.4	230.4	231.4	232.5
72.5°	201.4	205.3	209.2	211.7	212.9	214.0	215.2	216.4
75°	176.5	180.6	184.9	187.6	188.9	190.3	191.7	193.0
77.5°	153.3	157.6	161.8	164.6	166.0	167.5	168.8	170.3
80°	138.3	142.7	147.1	150.0	151.2	152.4	153.6	154.8
82.5°	123.5	128.0	132.7	135.6	136.9	138.2	139.5	140.9
85°	102.7	107.2	111.7	114.7	116.1	117.6	119.1	120.6
87.5°	90.7	95.3	99.9	102.9	104.4	105.7	107.1	108.6
90°	102.5	108.3	114.1	117.9	119.6	121.2	123.0	124.6
92.5°	98.2	103.8	109.5	113.0	114.3	115.6	116.9	118.2
95°	93.8	99.4	104.9	108.4	110.0	111.6	113.2	114.8
97.5°	91.7	95.7	99.8	102.6	104.1	105.6	107.2	108.7
100°	99.6	99.4	99.3	99.8	101.1	102.4	103.7	105.0
102.5°	201.7	160.1	118.6	98.3	99.5	100.7	101.9	103.1
105°	404.6	410.5	416.5	415.6	407.9	400.1	392.4	384.6
107.5°	484.2	489.0	493.8	497.1	499.2	501.2	503.2	505.2
110°	538.6	542.4	546.4	549.3	551.2	553.2	555.1	557.1



TEST NUMBER: P332765-935

CATALOG NUMBER: S124DIW-S575D1340U935-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	590.7	593.9	597.1	599.8	601.9	604.1	606.1	608.3
115°	668.9	672.7	676.4	678.8	679.8	681.0	682.0	683.0
117.5°	747.3	750.3	753.3	755.4	756.5	757.5	758.6	759.7
120°	795.6	799.1	802.5	804.6	805.3	806.1	806.8	807.4
122.5°	843.4	846.7	850.0	852.0	852.5	853.1	853.7	854.2
125°	910.4	914.0	917.6	919.9	921.0	922.1	923.3	924.5
127.5°	976.2	978.7	981.3	982.9	983.8	984.6	985.4	986.2
130°	1016.3	1019.3	1022.2	1024.1	1024.9	1025.9	1026.7	1027.6
132.5°	1055.9	1058.7	1061.5	1063.2	1063.9	1064.7	1065.4	1066.1
135°	1109.6	1112.4	1115.3	1117.5	1118.9	1120.2	1121.6	1123.0
137.5°	1161.6	1164.2	1167.0	1168.6	1169.2	1169.8	1170.4	1171.0
140°	1193.9	1196.5	1199.2	1201.0	1202.0	1203.0	1204.0	1205.0
142.5°	1224.0	1226.3	1228.6	1230.0	1230.6	1231.3	1232.0	1232.7
145°	1267.6	1268.7	1269.9	1271.0	1272.0	1273.2	1274.3	1275.3
147.5°	1305.9	1306.2	1306.6	1307.1	1307.8	1308.5	1309.2	1309.9
150°	1331.2	1331.2	1331.2	1331.3	1331.5	1331.8	1332.1	1332.3
152.5°	1353.4	1353.8	1354.2	1354.4	1354.2	1354.0	1353.9	1353.8
155°	1383.5	1384.4	1385.4	1385.5	1384.8	1384.1	1383.3	1382.6
157.5°	1409.3	1410.6	1411.9	1411.9	1410.6	1409.3	1408.0	1406.7
160°	1425.7	1427.2	1428.7	1428.7	1427.2	1425.7	1424.3	1422.8
162.5°	1439.2	1440.6	1442.1	1442.0	1440.4	1438.6	1436.9	1435.3
165°	1458.0	1460.0	1462.0	1461.8	1459.7	1457.4	1455.2	1452.9
167.5°	1471.8	1473.9	1476.2	1476.0	1473.5	1471.0	1468.6	1466.1
170°	1480.3	1482.3	1484.3	1484.0	1481.6	1479.1	1476.6	1474.1
172.5°	1485.7	1487.7	1489.7	1489.4	1486.6	1483.9	1481.3	1478.6
175°	1492.0	1494.3	1496.5	1496.1	1493.1	1490.1	1487.1	1484.2
177.5°	1494.5	1496.1	1497.7	1497.3	1494.9	1492.5	1490.1	1487.7
180°	1493.1	1493.1	1493.1	1493.1	1493.1	1493.1	1493.1	1493.1

(END OF REPORT)