

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: P332801-927

Luminaire Tested: **S124DIW-S795D1560U927-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332801-927
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-S795D1560U927-4F0-1E-UDD-D
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1560 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7510.4 lumens
Efficiency: N/A
Efficacy: 110.3 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

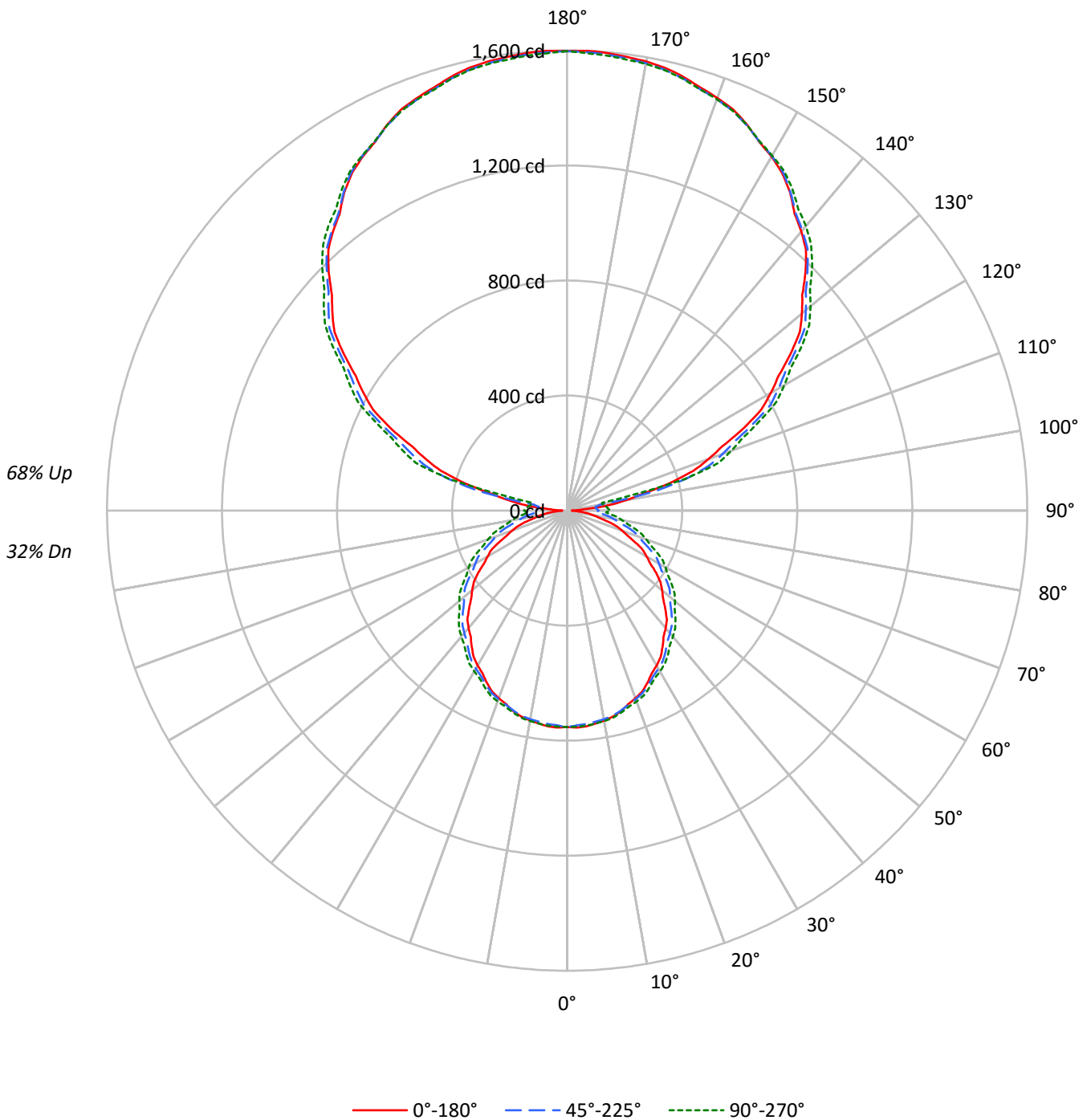
Input Watts (W): 68.1
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332801-927

CATALOG NUMBER: S124DIW-S795D1560U927-4F0-1E-UDD-D

Luminous Intensity Polar Plot





TEST NUMBER: P332801-927

CATALOG NUMBER: S124DIW-S795D1560U927-4F0-1E-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	39	39	39	32
1	93	89	85	81	83	80	76	73	63	61	59	48	46	45	34	33	32	25
2	84	77	71	65	76	69	64	59	55	51	48	41	39	37	29	28	26	21
3	77	67	60	54	69	61	54	49	48	44	40	36	33	31	26	24	22	17
4	70	59	51	45	63	53	47	41	42	38	34	32	29	26	23	21	19	15
5	64	53	45	39	57	47	41	35	38	33	29	29	25	22	20	18	16	12
6	59	47	39	33	53	42	35	30	34	29	25	26	22	19	18	16	14	11
7	54	42	34	29	49	38	31	26	31	25	22	23	20	17	17	14	12	10
8	50	38	31	25	45	35	28	23	28	23	19	21	18	15	15	13	11	9
9	47	35	27	22	42	31	25	21	25	20	17	20	16	13	14	12	10	8
10	44	32	25	20	39	29	23	18	23	18	15	18	15	12	13	11	9	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6075	6075	6075
5°	6093	5937	5954
10°	6056	5839	5835
15°	6002	5727	5695
20°	5920	5603	5561
25°	5828	5464	5411
30°	5728	5326	5258
35°	5615	5184	5124
40°	5525	5049	4984
45°	5391	4925	4864
50°	5277	4781	4738
55°	5160	4647	4588
60°	4976	4475	4453
65°	4776	4290	4285
70°	4532	4078	4091
75°	4196	3847	3915
80°	3817	3624	3742
85°	3344	3427	3643



TEST NUMBER: P332801-927

CATALOG NUMBER: S124DIW-S795D1560U927-4F0-1E-UDD-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.3	0.9
10°-20°	204.2	2.7
20°-30°	308.7	4.1
30°-40°	373.5	5.0
40°-50°	394.9	5.3
50°-60°	371.6	4.9
60°-70°	308.3	4.1
70°-80°	216.6	2.9
80°-90°	127.1	1.7
90°-100°	127.3	1.7
100°-110°	402.1	5.4
110°-120°	702.4	9.4
120°-130°	866.2	11.5
130°-140°	913.8	12.2
140°-150°	848.1	11.3
150°-160°	682.5	9.1
160°-170°	440.2	5.9
170°-180°	151.7	2.0
0°-30°	584.1	7.8
0°-40°	957.6	12.8
0°-60°	1724.1	23.0
0°-90°	2376.1	31.6
90°-120°	1231.9	16.4
90°-150°	3860.0	51.4
90°-180°	5134.0	68.4
0°-180°	7510.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	752	752	752	752	752	
5°	753	751	745	751	751	71
15°	722	723	720	728	727	203
25°	661	666	668	677	678	304
35°	578	588	597	608	611	362
45°	482	498	514	528	532	372
55°	378	396	420	437	442	336
65°	261	288	317	337	345	259
75°	145	176	212	234	243	154
85°	45	80	118	142	152	48
90°	17	64	110	140	150	12
95°	77	67	100	128	138	93
105°	367	392	428	456	424	385
115°	676	688	713	734	740	666
125°	947	952	970	989	996	845
135°	1172	1172	1182	1197	1205	903
145°	1351	1353	1354	1360	1366	844
155°	1480	1481	1478	1482	1479	682
165°	1561	1556	1555	1564	1554	441
175°	1597	1591	1591	1601	1588	152
180°	1597	1597	1597	1597	1597	



TEST NUMBER: P332801-927

CATALOG NUMBER: S124DIW-S795D1560U927-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	752.5	752.5	752.5	752.5	752.5	752.5	752.5	752.5	752.5	752.5	752.5
2.5°	755.2	754.7	754.2	753.8	753.4	752.6	751.3	750.1	748.9	747.7	748.8
5°	753.3	752.7	752.2	751.6	751.1	750.1	748.8	747.5	746.2	744.9	746.4
7.5°	746.9	746.6	746.2	745.9	745.5	744.8	743.8	742.7	741.6	740.5	742.2
10°	741.5	741.3	741.2	740.9	740.8	740.2	739.3	738.3	737.4	736.4	738.2
12.5°	734.1	734.0	734.0	734.0	734.0	733.6	733.0	732.3	731.7	731.0	732.6
15°	722.2	722.3	722.5	722.7	722.9	722.7	722.2	721.6	721.0	720.4	722.2
17.5°	705.8	706.3	706.9	707.5	708.1	708.2	708.1	708.1	707.9	707.8	709.6
20°	694.3	694.9	695.5	696.0	696.6	697.0	697.1	697.3	697.5	697.7	699.6
22.5°	681.5	682.2	682.9	683.7	684.4	684.9	685.2	685.6	685.9	686.3	688.1
25°	660.6	661.7	662.9	664.0	665.1	666.0	666.5	667.1	667.7	668.2	670.3
27.5°	637.4	639.0	640.6	642.3	644.0	645.2	646.1	646.9	647.8	648.6	650.5
30°	621.9	623.4	624.9	626.4	627.9	629.2	630.6	631.8	633.2	634.5	636.5
32.5°	605.0	606.8	608.6	610.4	612.2	613.8	615.3	616.7	618.2	619.6	622.0
35°	578.1	580.3	582.6	584.8	587.0	589.1	591.0	592.9	594.7	596.6	599.2
37.5°	550.9	553.5	556.1	558.6	561.3	563.7	566.0	568.3	570.7	573.0	575.7
40°	533.4	535.8	538.2	540.7	543.1	545.7	548.3	550.9	553.5	556.1	559.0
42.5°	513.2	515.9	518.6	521.3	524.1	527.0	530.0	533.1	536.2	539.2	542.4
45°	482.0	485.5	489.1	492.7	496.2	499.8	503.4	506.9	510.4	514.0	517.2
47.5°	452.2	455.8	459.5	463.2	466.8	470.7	474.8	479.0	483.1	487.2	490.5
50°	430.6	434.7	438.8	442.9	447.0	451.1	455.3	459.4	463.5	467.6	471.4
52.5°	409.0	413.1	417.2	421.4	425.5	429.9	434.6	439.3	444.1	448.8	452.5
55°	377.5	381.4	385.4	389.3	393.2	398.0	403.6	409.2	414.9	420.5	424.2
57.5°	342.3	347.1	352.0	356.9	361.7	366.9	372.6	378.1	383.7	389.3	393.7
60°	319.3	324.2	329.1	334.0	338.8	344.4	350.5	356.7	362.9	369.1	373.4
62.5°	297.1	302.5	307.8	313.1	318.4	324.2	330.3	336.5	342.7	348.9	353.2
65°	261.2	267.2	273.2	279.2	285.2	291.4	297.7	304.1	310.5	316.8	321.5
67.5°	226.6	233.1	239.4	245.7	252.2	258.7	265.5	272.4	279.2	286.0	290.7
70°	203.0	209.5	215.8	222.2	228.5	235.3	242.4	249.5	256.6	263.7	268.8
72.5°	180.1	186.6	193.2	199.7	206.2	213.3	220.9	228.4	236.0	243.5	248.4
75°	145.0	151.9	158.8	165.7	172.6	180.1	187.9	195.7	203.7	211.5	216.7
77.5°	112.1	119.4	126.7	134.1	141.4	149.2	157.5	165.7	174.0	182.2	187.5
80°	91.8	99.3	106.8	114.3	121.8	129.7	137.9	146.2	154.4	162.6	168.3
82.5°	71.6	79.4	87.2	95.0	102.7	110.8	119.1	127.3	135.5	143.8	149.5
85°	44.7	52.5	60.4	68.3	76.1	84.3	92.7	101.1	109.6	118.0	123.6
87.5°	25.7	33.9	42.1	50.3	58.5	66.9	75.6	84.2	92.8	101.5	107.3
90°	17.0	27.5	37.9	48.3	58.7	69.0	79.1	89.4	99.5	109.7	116.7
92.5°	27.9	34.8	41.7	48.6	55.5	64.0	74.1	84.4	94.5	104.7	111.5
95°	76.7	73.8	71.0	68.1	65.3	67.8	75.7	83.7	91.7	99.6	106.2
97.5°	149.5	160.4	171.3	182.3	193.3	187.7	165.7	143.7	121.7	99.7	104.7
100°	205.2	214.8	224.5	234.2	243.8	233.9	204.6	175.2	145.9	116.6	117.2
102.5°	268.2	276.1	283.8	291.6	299.4	304.4	306.8	309.2	311.6	313.9	270.1
105°	367.2	372.5	377.9	383.2	388.5	395.3	403.5	411.9	420.1	428.3	435.4
107.5°	460.4	464.3	468.2	472.1	475.9	482.0	490.4	498.8	507.1	515.5	521.2
110°	522.8	526.2	529.7	533.1	536.5	542.2	550.4	558.6	566.7	574.9	579.7



TEST NUMBER: P332801-927

CATALOG NUMBER: S124DIW-S795D1560U927-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	583.3	587.1	590.8	594.6	598.3	603.7	610.7	617.7	624.7	631.7	635.7
115°	676.4	678.9	681.4	683.9	686.3	690.5	696.2	702.0	707.7	713.4	718.0
117.5°	761.1	763.2	765.2	767.3	769.4	773.5	779.7	785.8	792.0	798.1	801.9
120°	817.8	819.4	821.0	822.6	824.3	827.7	832.8	838.0	843.1	848.3	852.6
122.5°	871.3	872.0	872.7	873.5	874.3	877.4	882.9	888.4	893.9	899.4	903.5
125°	947.1	948.0	948.9	949.7	950.6	953.2	957.3	961.5	965.6	969.8	974.1
127.5°	1019.6	1019.7	1019.8	1019.9	1019.9	1022.4	1027.1	1032.0	1036.8	1041.6	1044.8
130°	1065.7	1065.8	1065.9	1066.0	1066.0	1068.0	1071.8	1075.6	1079.3	1083.2	1086.8
132.5°	1108.7	1109.1	1109.4	1109.6	1109.9	1111.7	1115.2	1118.6	1122.0	1125.4	1128.9
135°	1172.4	1172.2	1171.9	1171.6	1171.4	1172.4	1174.8	1177.2	1179.6	1181.9	1185.4
137.5°	1229.5	1229.5	1229.4	1229.3	1229.2	1230.1	1231.8	1233.7	1235.5	1237.3	1240.6
140°	1266.8	1267.2	1267.5	1267.8	1268.2	1268.7	1269.5	1270.2	1270.9	1271.6	1274.9
142.5°	1299.6	1300.5	1301.4	1302.3	1303.3	1303.9	1304.0	1304.2	1304.4	1304.6	1307.3
145°	1350.8	1351.4	1352.0	1352.7	1353.2	1353.5	1353.5	1353.5	1353.5	1353.5	1354.9
147.5°	1391.6	1393.0	1394.2	1395.5	1396.9	1397.3	1397.1	1396.9	1396.5	1396.3	1396.7
150°	1421.3	1422.1	1423.0	1423.9	1424.7	1425.1	1424.8	1424.6	1424.3	1424.0	1424.0
152.5°	1445.4	1446.3	1447.1	1447.9	1448.7	1448.9	1448.3	1447.9	1447.4	1446.9	1447.4
155°	1480.2	1480.4	1480.7	1481.0	1481.2	1481.0	1480.2	1479.4	1478.6	1477.7	1478.8
157.5°	1509.6	1509.4	1509.3	1509.1	1508.9	1508.4	1507.4	1506.6	1505.7	1504.8	1506.2
160°	1526.8	1526.0	1525.2	1524.4	1523.6	1523.0	1522.7	1522.5	1522.3	1521.9	1523.6
162.5°	1542.1	1541.0	1540.0	1539.1	1538.0	1537.4	1537.1	1536.8	1536.6	1536.3	1537.9
165°	1561.4	1560.0	1558.8	1557.4	1556.1	1555.4	1555.4	1555.4	1555.4	1555.4	1557.5
167.5°	1576.7	1575.3	1573.9	1572.6	1571.1	1570.4	1570.3	1570.1	1569.9	1569.8	1572.1
170°	1585.3	1583.7	1582.1	1580.5	1578.9	1578.3	1578.5	1578.8	1579.1	1579.3	1581.4
172.5°	1591.0	1589.4	1587.9	1586.3	1584.7	1584.0	1584.3	1584.5	1584.8	1585.1	1587.1
175°	1597.2	1595.6	1594.0	1592.4	1590.9	1590.2	1590.5	1590.7	1591.0	1591.3	1593.6
177.5°	1600.1	1598.6	1597.1	1595.6	1594.2	1593.6	1594.0	1594.5	1594.9	1595.3	1597.0
180°	1597.2	1597.2	1597.2	1597.2	1597.2	1597.2	1597.2	1597.2	1597.2	1597.2	1597.2



TEST NUMBER: P332801-927

CATALOG NUMBER: S124DIW-S795D1560U927-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	752.5	752.5	752.5	752.5	752.5	752.5	752.5	752.5
2.5°	749.8	750.9	751.9	752.4	752.3	752.1	751.9	751.8
5°	747.9	749.4	750.8	751.5	751.3	751.1	751.0	750.8
7.5°	743.9	745.5	747.3	748.0	747.8	747.6	747.4	747.3
10°	739.8	741.5	743.2	743.9	743.8	743.5	743.4	743.2
12.5°	734.1	735.7	737.2	737.9	737.9	737.8	737.8	737.8
15°	723.8	725.5	727.1	727.9	727.8	727.5	727.4	727.1
17.5°	711.2	713.0	714.7	715.5	715.3	715.2	715.0	714.9
20°	701.4	703.3	705.2	706.2	706.2	706.2	706.2	706.2
22.5°	690.0	691.8	693.7	694.8	695.1	695.4	695.7	696.0
25°	672.3	674.4	676.4	677.6	677.7	677.9	678.1	678.3
27.5°	652.4	654.3	656.3	657.4	657.6	657.8	658.1	658.2
30°	638.6	640.6	642.7	644.0	644.4	644.7	645.1	645.5
32.5°	624.4	626.8	629.1	630.5	630.8	631.2	631.6	632.0
35°	601.8	604.4	607.0	608.6	609.2	609.7	610.4	610.9
37.5°	578.3	581.0	583.6	585.3	585.8	586.5	587.0	587.6
40°	561.7	564.6	567.4	569.1	569.9	570.6	571.4	572.1
42.5°	545.5	548.6	551.7	553.6	554.1	554.8	555.4	556.0
45°	520.4	523.6	526.7	528.8	529.7	530.7	531.6	532.5
47.5°	493.8	497.1	500.4	502.6	503.7	504.9	506.0	507.1
50°	475.2	478.9	482.6	485.1	486.2	487.4	488.5	489.6
52.5°	456.3	460.0	463.7	466.2	467.3	468.4	469.5	470.7
55°	427.9	431.7	435.5	437.9	439.0	440.1	441.2	442.4
57.5°	398.2	402.7	407.1	409.9	410.9	411.9	413.0	414.1
60°	377.7	382.0	386.3	389.2	390.7	392.2	393.7	395.2
62.5°	357.4	361.8	366.1	369.0	370.5	372.0	373.4	374.9
65°	326.2	330.9	335.6	338.7	340.2	341.7	343.1	344.6
67.5°	295.5	300.2	305.0	308.1	309.6	311.0	312.5	313.9
70°	273.9	278.9	284.0	287.2	288.4	289.8	291.0	292.4
72.5°	253.3	258.3	263.2	266.3	267.8	269.3	270.7	272.2
75°	222.0	227.2	232.5	235.9	237.7	239.3	241.0	242.6
77.5°	192.8	198.1	203.4	207.0	208.8	210.6	212.4	214.2
80°	173.9	179.5	185.1	188.6	190.1	191.6	193.1	194.6
82.5°	155.3	161.1	166.8	170.6	172.1	173.8	175.5	177.1
85°	129.2	134.8	140.5	144.2	146.1	147.9	149.8	151.7
87.5°	113.0	118.7	124.5	128.3	130.0	131.7	133.5	135.2
90°	123.7	130.8	137.8	142.4	144.3	146.4	148.4	150.4
92.5°	118.4	125.3	132.2	136.4	138.0	139.7	141.2	142.8
95°	112.9	119.5	126.2	130.5	132.5	134.4	136.3	138.3
97.5°	109.7	114.8	119.9	123.3	125.2	127.1	129.0	130.9
100°	117.7	118.2	118.7	119.9	121.4	122.9	124.5	126.1
102.5°	226.4	182.6	138.8	117.6	119.1	120.7	122.2	123.7
105°	442.5	449.6	456.6	456.1	448.1	440.0	432.0	423.9
107.5°	527.0	532.7	538.5	542.6	544.9	547.3	549.7	552.1
110°	584.6	589.4	594.2	597.8	600.1	602.4	604.7	607.0



TEST NUMBER: P332801-927

CATALOG NUMBER: S124DIW-S795D1560U927-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	639.8	643.9	647.9	651.2	653.7	656.2	658.7	661.2
115°	722.7	727.3	732.0	735.0	736.3	737.6	738.9	740.2
117.5°	805.7	809.5	813.3	815.9	817.3	818.7	820.1	821.5
120°	856.9	861.1	865.4	868.1	869.0	870.0	870.9	871.9
122.5°	907.5	911.6	915.7	918.1	918.9	919.7	920.6	921.4
125°	978.4	982.8	987.1	990.1	991.4	992.8	994.2	995.6
127.5°	1048.1	1051.2	1054.5	1056.6	1057.6	1058.8	1059.8	1060.9
130°	1090.4	1094.1	1097.7	1100.1	1101.2	1102.3	1103.5	1104.6
132.5°	1132.3	1135.8	1139.3	1141.5	1142.5	1143.4	1144.3	1145.2
135°	1189.0	1192.5	1196.0	1198.7	1200.2	1201.9	1203.6	1205.2
137.5°	1244.0	1247.2	1250.5	1252.6	1253.4	1254.2	1255.0	1255.7
140°	1278.0	1281.3	1284.5	1286.7	1287.9	1289.1	1290.3	1291.6
142.5°	1310.1	1312.8	1315.5	1317.3	1318.1	1319.0	1319.9	1320.6
145°	1356.3	1357.7	1359.1	1360.4	1361.7	1362.9	1364.3	1365.6
147.5°	1397.0	1397.4	1397.7	1398.4	1399.2	1400.1	1401.0	1401.8
150°	1424.0	1424.0	1424.0	1424.2	1424.4	1424.7	1425.0	1425.2
152.5°	1447.8	1448.2	1448.7	1448.7	1448.6	1448.4	1448.3	1448.1
155°	1479.9	1481.0	1482.0	1482.2	1481.4	1480.6	1479.8	1479.0
157.5°	1507.5	1508.9	1510.3	1510.3	1508.9	1507.5	1506.2	1504.8
160°	1525.2	1526.8	1528.4	1528.4	1526.8	1525.2	1523.6	1521.9
162.5°	1539.5	1541.1	1542.7	1542.5	1540.8	1539.0	1537.2	1535.3
165°	1559.6	1561.8	1563.9	1563.8	1561.4	1559.0	1556.6	1554.3
167.5°	1574.5	1576.8	1579.1	1579.0	1576.3	1573.7	1571.0	1568.4
170°	1583.6	1585.7	1587.9	1587.5	1584.9	1582.2	1579.6	1576.9
172.5°	1589.3	1591.4	1593.6	1593.2	1590.3	1587.5	1584.6	1581.7
175°	1596.0	1598.5	1600.8	1600.4	1597.2	1594.0	1590.9	1587.7
177.5°	1598.7	1600.4	1602.1	1601.7	1599.2	1596.6	1594.0	1591.5
180°	1597.2	1597.2	1597.2	1597.2	1597.2	1597.2	1597.2	1597.2

(END OF REPORT)