

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: P332795-840

Luminaire Tested: **S124DIW-S795D1340U840-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332795-840
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-S795D1340U840-4F0-1E-UDD-D
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 795 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: 8692.2 lumens
Efficiency: N/A
Efficacy: 141.6 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

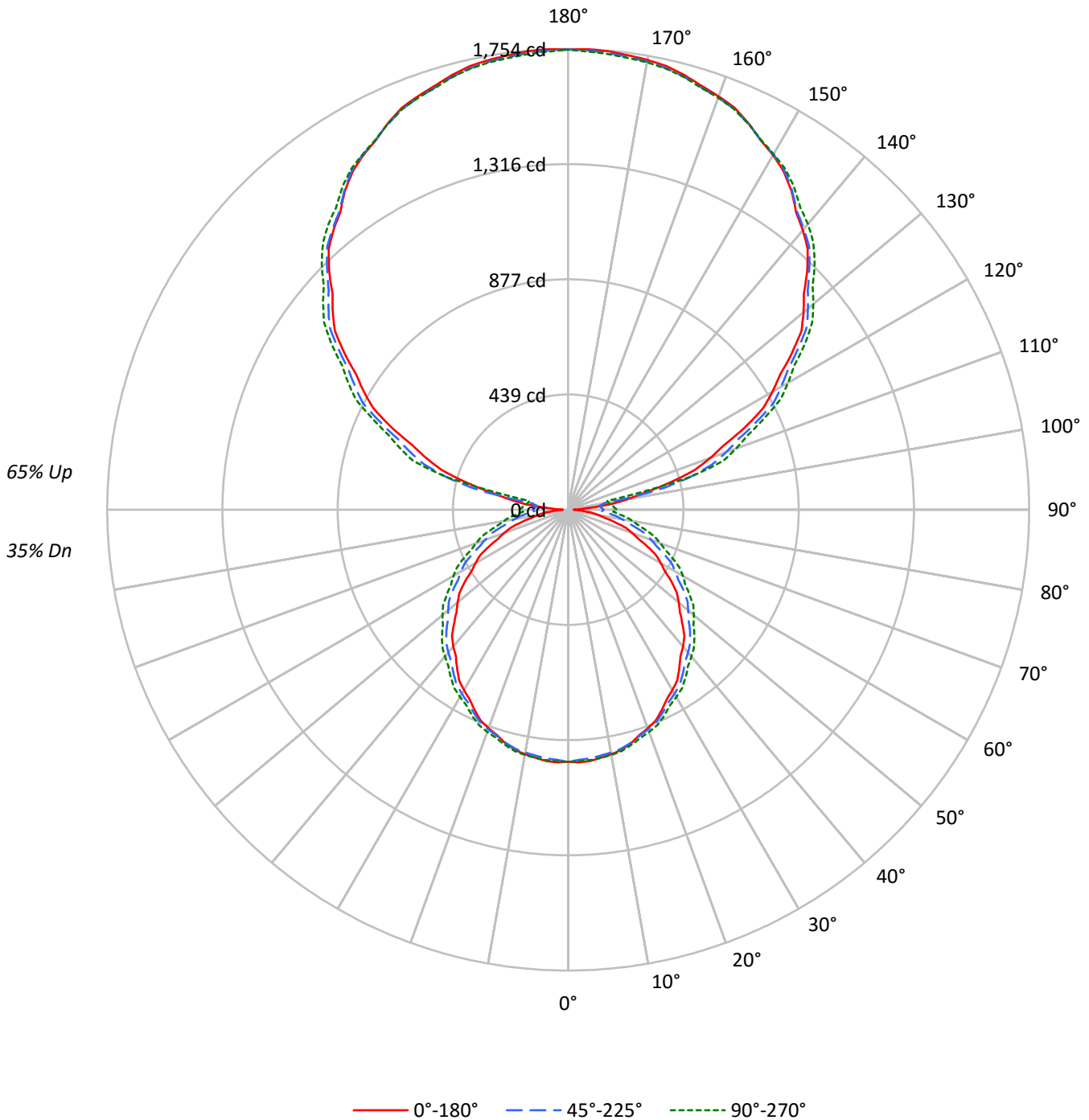
Input Watts (W): 61.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P332795-840

CATALOG NUMBER: S124DIW-S795D1340U840-4F0-1E-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	104	104	104	104	94	94	94	94	75	75	75	58	58	58	42	42	42	35
1	94	89	85	81	84	81	77	74	64	62	60	50	48	47	36	35	34	28
2	85	77	71	66	76	70	65	60	56	52	49	43	41	38	31	30	28	23
3	77	68	60	54	69	61	55	50	49	45	41	38	35	32	28	25	24	19
4	71	60	52	46	63	54	47	42	43	38	34	34	30	27	24	22	20	16
5	65	53	45	39	58	48	41	36	39	33	29	30	26	23	22	19	17	14
6	59	47	39	33	53	43	36	31	35	29	25	27	23	20	20	17	15	12
7	55	43	35	29	49	39	32	27	31	26	22	24	21	18	18	15	13	11
8	51	38	31	26	46	35	28	24	28	23	20	22	19	16	16	14	12	9
9	47	35	28	23	42	32	25	21	26	21	17	20	17	14	15	13	11	8
10	44	32	25	20	40	29	23	19	24	19	16	19	15	13	14	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7744	7744	7744
5°	7768	7569	7589
10°	7720	7444	7439
15°	7651	7301	7261
20°	7547	7143	7089
25°	7429	6965	6898
30°	7302	6789	6703
35°	7158	6609	6532
40°	7042	6436	6353
45°	6871	6278	6200
50°	6727	6095	6039
55°	6577	5924	5849
60°	6344	5704	5676
65°	6089	5468	5463
70°	5778	5200	5215
75°	5348	4904	4991
80°	4865	4620	4771
85°	4264	4369	4644



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.8	1.0
10°-20°	260.3	3.0
20°-30°	393.5	4.5
30°-40°	476.1	5.5
40°-50°	503.4	5.8
50°-60°	473.7	5.5
60°-70°	393.1	4.5
70°-80°	276.1	3.2
80°-90°	161.1	1.9
90°-100°	152.6	1.8
100°-110°	450.5	5.2
110°-120°	776.6	8.9
120°-130°	953.4	11.0
130°-140°	1003.5	11.5
140°-150°	930.2	10.7
150°-160°	748.3	8.6
160°-170°	482.6	5.6
170°-180°	166.3	1.9
0°-30°	744.6	8.6
0°-40°	1220.8	14.0
0°-60°	2197.9	25.3
0°-90°	3028.2	34.8
90°-120°	1379.7	15.9
90°-150°	4266.8	49.1
90°-180°	5664.0	65.2
0°-180°	8692.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	959	959	959	959	959	
5°	960	957	950	958	957	91
15°	921	921	918	928	927	259
25°	842	848	852	863	865	388
35°	737	750	760	775	779	461
45°	614	635	655	673	679	475
55°	481	504	536	557	564	429
65°	333	368	404	430	439	330
75°	185	225	270	299	309	196
85°	57	102	150	181	193	61
90°	21	78	135	173	185	15
95°	86	80	122	158	170	104
105°	404	434	480	514	480	423
115°	743	757	789	814	823	731
125°	1039	1044	1068	1091	1100	928
135°	1286	1285	1297	1316	1326	991
145°	1481	1484	1484	1492	1499	925
155°	1623	1624	1620	1625	1622	748
165°	1712	1706	1706	1715	1704	484
175°	1751	1744	1745	1755	1741	167
180°	1751	1751	1751	1751	1751	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	959.3	959.3	959.3	959.3	959.3	959.3	959.3	959.3	959.3	959.3	959.3
2.5°	962.7	962.1	961.5	961.0	960.4	959.4	957.8	956.2	954.7	953.2	954.5
5°	960.3	959.6	958.9	958.2	957.5	956.2	954.5	952.9	951.2	949.6	951.5
7.5°	952.1	951.7	951.3	950.9	950.4	949.5	948.2	946.7	945.3	944.0	946.1
10°	945.2	945.0	944.8	944.5	944.3	943.6	942.4	941.2	940.0	938.8	941.0
12.5°	935.8	935.7	935.7	935.6	935.6	935.2	934.4	933.5	932.7	931.9	933.9
15°	920.6	920.8	921.0	921.3	921.5	921.3	920.6	919.9	919.1	918.4	920.6
17.5°	899.7	900.4	901.1	901.9	902.6	902.8	902.7	902.6	902.4	902.3	904.5
20°	885.1	885.9	886.6	887.3	888.0	888.5	888.7	888.9	889.2	889.4	891.8
22.5°	868.8	869.7	870.6	871.5	872.4	873.1	873.5	873.9	874.3	874.8	877.2
25°	842.1	843.5	845.1	846.5	847.9	849.0	849.7	850.4	851.1	851.8	854.4
27.5°	812.5	814.6	816.7	818.8	820.9	822.5	823.6	824.7	825.8	826.9	829.3
30°	792.7	794.7	796.6	798.5	800.4	802.1	803.9	805.5	807.2	808.8	811.4
32.5°	771.2	773.6	775.9	778.1	780.4	782.4	784.4	786.2	788.1	789.9	792.9
35°	736.9	739.7	742.7	745.5	748.3	750.9	753.4	755.8	758.1	760.5	763.9
37.5°	702.3	705.6	708.9	712.2	715.5	718.6	721.5	724.5	727.5	730.4	733.9
40°	679.9	683.1	686.1	689.2	692.4	695.6	698.9	702.3	705.6	708.9	712.6
42.5°	654.2	657.6	661.2	664.6	668.1	671.8	675.7	679.6	683.6	687.4	691.5
45°	614.4	618.9	623.5	628.0	632.6	637.1	641.7	646.2	650.7	655.2	659.3
47.5°	576.4	581.1	585.7	590.5	595.1	600.1	605.3	610.6	615.8	621.1	625.3
50°	548.9	554.1	559.4	564.6	569.9	575.1	580.4	585.6	590.9	596.1	601.0
52.5°	521.4	526.6	531.9	537.1	542.4	548.1	554.0	560.1	566.1	572.1	576.8
55°	481.2	486.3	491.3	496.2	501.3	507.4	514.5	521.7	528.9	536.0	540.8
57.5°	436.4	442.5	448.8	454.9	461.1	467.8	474.9	482.0	489.2	496.2	501.9
60°	407.1	413.3	419.5	425.8	431.9	439.0	446.9	454.7	462.6	470.5	475.9
62.5°	378.7	385.6	392.3	399.1	405.9	413.2	421.1	429.0	436.9	444.7	450.2
65°	333.0	340.6	348.3	355.9	363.6	371.4	379.5	387.7	395.8	403.8	409.8
67.5°	288.9	297.1	305.2	313.3	321.4	329.8	338.5	347.2	355.9	364.6	370.6
70°	258.8	267.0	275.1	283.3	291.3	299.9	309.0	318.1	327.1	336.2	342.6
72.5°	229.6	237.9	246.3	254.6	262.9	271.9	281.6	291.1	300.8	310.4	316.7
75°	184.8	193.6	202.4	211.3	220.0	229.5	239.5	249.5	259.6	269.6	276.3
77.5°	142.9	152.2	161.6	171.0	180.3	190.3	200.8	211.3	221.8	232.3	239.0
80°	117.0	126.6	136.1	145.7	155.3	165.3	175.8	186.3	196.8	207.3	214.5
82.5°	91.3	101.2	111.2	121.1	131.0	141.3	151.8	162.3	172.8	183.3	190.6
85°	57.0	67.0	77.0	87.1	97.0	107.4	118.2	128.9	139.7	150.4	157.5
87.5°	32.6	42.9	53.3	63.7	74.1	84.7	95.6	106.5	117.5	128.5	135.7
90°	21.1	33.8	46.7	59.4	72.1	84.8	97.4	110.0	122.6	135.1	143.8
92.5°	32.8	41.6	50.4	59.2	67.9	78.6	91.2	103.8	116.3	129.0	137.4
95°	86.0	84.0	82.0	80.0	78.0	82.0	92.0	102.1	112.2	122.3	130.5
97.5°	165.6	178.6	191.6	204.5	217.4	212.6	189.8	166.9	144.2	121.4	127.8
100°	226.6	238.1	249.5	260.9	272.5	262.7	231.9	201.0	170.2	139.3	140.8
102.5°	295.8	305.1	314.4	323.7	333.0	339.5	343.4	347.3	351.1	355.1	307.9
105°	403.9	410.4	417.0	423.5	430.0	438.4	448.7	459.0	469.3	479.6	488.2
107.5°	506.1	510.9	515.7	520.5	525.3	532.9	543.2	553.5	563.9	574.2	581.4
110°	574.4	578.7	582.9	587.1	591.3	598.4	608.5	618.6	628.7	638.8	644.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	640.7	645.2	649.7	654.3	658.7	665.4	674.2	683.0	691.8	700.5	705.8
115°	742.6	745.6	748.6	751.6	754.7	759.8	767.2	774.6	781.9	789.2	795.1
117.5°	835.4	837.8	840.3	842.7	845.2	850.3	858.1	865.8	873.5	881.3	886.2
120°	897.4	899.3	901.1	903.0	904.9	909.2	915.7	922.4	929.1	935.6	941.0
122.5°	956.0	956.9	957.8	958.6	959.5	963.3	970.3	977.2	984.2	991.1	996.2
125°	1039.1	1040.0	1041.0	1041.9	1042.8	1045.9	1051.4	1056.7	1062.1	1067.5	1072.9
127.5°	1118.5	1118.5	1118.6	1118.6	1118.7	1121.7	1127.6	1133.6	1139.4	1145.4	1149.5
130°	1169.0	1169.0	1169.1	1169.1	1169.2	1171.5	1176.3	1180.9	1185.7	1190.3	1195.0
132.5°	1216.2	1216.4	1216.7	1217.0	1217.3	1219.5	1223.7	1227.8	1232.0	1236.2	1240.5
135°	1285.8	1285.6	1285.3	1285.0	1284.6	1285.9	1288.8	1291.6	1294.4	1297.3	1301.6
137.5°	1348.4	1348.3	1348.2	1348.1	1348.0	1348.9	1351.0	1353.1	1355.1	1357.3	1361.4
140°	1389.3	1389.7	1390.0	1390.3	1390.7	1391.2	1392.1	1392.9	1393.7	1394.5	1398.5
142.5°	1425.1	1426.1	1427.1	1428.1	1429.1	1429.7	1429.9	1430.1	1430.3	1430.6	1433.9
145°	1481.2	1481.9	1482.5	1483.1	1483.8	1484.1	1484.1	1484.1	1484.1	1484.1	1485.8
147.5°	1526.0	1527.4	1528.8	1530.1	1531.6	1532.2	1531.9	1531.6	1531.3	1531.0	1531.4
150°	1558.5	1559.4	1560.3	1561.3	1562.2	1562.5	1562.3	1562.0	1561.7	1561.4	1561.4
152.5°	1584.9	1585.8	1586.6	1587.5	1588.4	1588.6	1588.1	1587.5	1587.0	1586.5	1587.0
155°	1623.0	1623.2	1623.5	1623.8	1624.1	1623.8	1623.0	1622.0	1621.1	1620.3	1621.4
157.5°	1655.2	1655.0	1654.8	1654.6	1654.5	1653.9	1652.8	1651.8	1650.9	1649.9	1651.4
160°	1674.0	1673.1	1672.2	1671.3	1670.5	1669.9	1669.6	1669.3	1669.0	1668.8	1670.5
162.5°	1690.7	1689.6	1688.6	1687.5	1686.4	1685.7	1685.4	1685.1	1684.8	1684.5	1686.2
165°	1712.0	1710.5	1709.1	1707.6	1706.2	1705.5	1705.5	1705.5	1705.5	1705.5	1707.8
167.5°	1728.8	1727.3	1725.8	1724.2	1722.7	1721.8	1721.7	1721.5	1721.3	1721.1	1723.7
170°	1738.2	1736.5	1734.6	1732.9	1731.2	1730.5	1730.7	1731.0	1731.3	1731.6	1733.9
172.5°	1744.4	1742.7	1741.0	1739.2	1737.5	1736.8	1737.1	1737.4	1737.6	1737.9	1740.2
175°	1751.3	1749.5	1747.8	1746.1	1744.2	1743.5	1743.8	1744.1	1744.4	1744.7	1747.4
177.5°	1754.4	1752.8	1751.1	1749.5	1747.9	1747.3	1747.8	1748.3	1748.7	1749.2	1751.0
180°	1751.3	1751.3	1751.3	1751.3	1751.3	1751.3	1751.3	1751.3	1751.3	1751.3	1751.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	959.3	959.3	959.3	959.3	959.3	959.3	959.3	959.3
2.5°	955.8	957.3	958.6	959.2	959.0	958.8	958.6	958.4
5°	953.4	955.3	957.2	958.1	957.8	957.6	957.4	957.0
7.5°	948.3	950.4	952.6	953.5	953.3	953.0	952.8	952.6
10°	943.1	945.2	947.5	948.4	948.2	947.9	947.7	947.5
12.5°	935.8	937.9	939.8	940.7	940.7	940.6	940.6	940.5
15°	922.7	924.8	927.0	928.0	927.8	927.5	927.3	927.0
17.5°	906.7	908.9	911.1	912.1	911.9	911.7	911.5	911.3
20°	894.1	896.6	899.0	900.2	900.2	900.2	900.2	900.2
22.5°	879.6	881.9	884.3	885.8	886.2	886.5	886.9	887.3
25°	857.1	859.7	862.3	863.7	863.9	864.2	864.4	864.7
27.5°	831.7	834.1	836.7	838.0	838.3	838.6	838.9	839.1
30°	814.1	816.7	819.3	820.9	821.4	821.8	822.3	822.8
32.5°	796.0	799.0	801.9	803.8	804.2	804.7	805.2	805.7
35°	767.2	770.5	773.9	775.9	776.6	777.3	778.1	778.8
37.5°	737.2	740.6	744.0	746.1	746.8	747.6	748.3	749.1
40°	716.1	719.7	723.3	725.5	726.5	727.4	728.4	729.3
42.5°	695.4	699.3	703.3	705.7	706.4	707.2	708.0	708.7
45°	663.4	667.4	671.5	674.1	675.3	676.5	677.7	678.8
47.5°	629.4	633.7	637.9	640.7	642.2	643.6	645.0	646.4
50°	605.7	610.5	615.2	618.3	619.8	621.3	622.7	624.1
52.5°	581.7	586.4	591.2	594.3	595.7	597.1	598.5	600.1
55°	545.5	550.4	555.1	558.3	559.7	561.1	562.5	563.9
57.5°	507.7	513.3	519.0	522.5	523.8	525.1	526.5	527.9
60°	481.5	487.0	492.4	496.1	498.1	500.0	501.9	503.8
62.5°	455.7	461.2	466.7	470.4	472.3	474.2	476.1	478.0
65°	415.9	421.8	427.8	431.7	433.6	435.6	437.4	439.3
67.5°	376.7	382.7	388.8	392.7	394.7	396.5	398.4	400.2
70°	349.1	355.6	362.0	366.1	367.7	369.4	371.0	372.7
72.5°	323.0	329.2	335.5	339.5	341.3	343.3	345.1	347.0
75°	283.0	289.6	296.4	300.7	303.0	305.1	307.2	309.3
77.5°	245.8	252.6	259.3	263.9	266.2	268.4	270.7	273.1
80°	221.7	228.8	236.0	240.4	242.4	244.3	246.2	248.1
82.5°	197.9	205.3	212.7	217.4	219.4	221.6	223.7	225.8
85°	164.7	171.9	179.0	183.8	186.2	188.5	191.0	193.4
87.5°	143.0	150.3	157.5	162.3	164.5	166.7	169.0	171.2
90°	152.5	161.2	169.9	175.4	177.9	180.4	182.9	185.4
92.5°	145.9	154.4	162.9	168.1	170.2	172.2	174.2	176.2
95°	138.7	146.8	155.0	160.4	162.8	165.2	167.6	170.1
97.5°	134.2	140.7	147.1	151.5	153.8	156.1	158.5	160.9
100°	142.3	143.8	145.2	146.9	149.0	150.9	152.9	154.8
102.5°	260.7	213.7	166.5	143.9	145.8	147.7	149.7	151.6
105°	496.8	505.3	513.9	513.9	505.3	496.8	488.2	479.7
107.5°	588.5	595.6	602.8	607.8	610.7	613.5	616.3	619.0
110°	651.1	657.1	663.2	667.6	670.3	673.2	675.9	678.7



TEST NUMBER: P332795-840

CATALOG NUMBER: S124DIW-S795D1340U840-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	710.9	716.1	721.3	725.4	728.4	731.4	734.5	737.5
115°	800.9	806.8	812.5	816.4	818.0	819.7	821.3	823.0
117.5°	891.0	895.9	900.7	904.0	905.8	907.6	909.4	911.2
120°	946.4	951.8	957.2	960.5	961.8	963.1	964.4	965.7
122.5°	1001.4	1006.5	1011.6	1014.7	1015.9	1017.0	1018.1	1019.3
125°	1078.3	1083.7	1089.1	1092.7	1094.4	1096.1	1097.8	1099.5
127.5°	1153.7	1157.7	1161.8	1164.7	1166.0	1167.4	1168.8	1170.2
130°	1199.5	1204.1	1208.7	1211.7	1213.2	1214.6	1216.0	1217.4
132.5°	1245.0	1249.3	1253.7	1256.6	1257.8	1258.9	1260.1	1261.3
135°	1306.1	1310.5	1314.8	1318.1	1320.1	1322.1	1324.1	1326.2
137.5°	1365.5	1369.7	1373.8	1376.3	1377.4	1378.4	1379.4	1380.4
140°	1402.5	1406.4	1410.4	1413.2	1414.6	1416.1	1417.6	1419.1
142.5°	1437.2	1440.6	1444.0	1446.2	1447.2	1448.3	1449.4	1450.5
145°	1487.5	1489.2	1491.0	1492.6	1494.1	1495.6	1497.2	1498.7
147.5°	1531.8	1532.3	1532.7	1533.4	1534.5	1535.5	1536.5	1537.6
150°	1561.4	1561.4	1561.4	1561.5	1561.8	1562.1	1562.4	1562.7
152.5°	1587.4	1587.9	1588.3	1588.5	1588.3	1588.1	1588.0	1587.8
155°	1622.7	1623.8	1625.0	1625.1	1624.3	1623.4	1622.4	1621.6
157.5°	1652.9	1654.5	1656.0	1656.0	1654.5	1652.9	1651.4	1649.9
160°	1672.2	1674.0	1675.8	1675.8	1674.0	1672.2	1670.5	1668.8
162.5°	1688.0	1689.7	1691.4	1691.3	1689.4	1687.4	1685.4	1683.4
165°	1710.1	1712.4	1714.8	1714.5	1712.0	1709.4	1706.8	1704.1
167.5°	1726.3	1728.8	1731.4	1731.2	1728.3	1725.4	1722.5	1719.6
170°	1736.3	1738.6	1740.9	1740.6	1737.8	1734.8	1731.9	1729.0
172.5°	1742.5	1744.9	1747.3	1746.9	1743.6	1740.5	1737.4	1734.2
175°	1750.0	1752.6	1755.2	1754.7	1751.3	1747.8	1744.2	1740.8
177.5°	1752.9	1754.7	1756.7	1756.2	1753.3	1750.6	1747.8	1744.9
180°	1751.3	1751.3	1751.3	1751.3	1751.3	1751.3	1751.3	1751.3

(END OF REPORT)