

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: P332615

Luminaire Tested: **S124DIP-S795D1035U835-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332615
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-18,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DIP-S795D1035U835-4F0-1E-UDD-F4
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1035 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7104.9 lumens
Efficiency: N/A
Efficacy: 136.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: General Diffuse

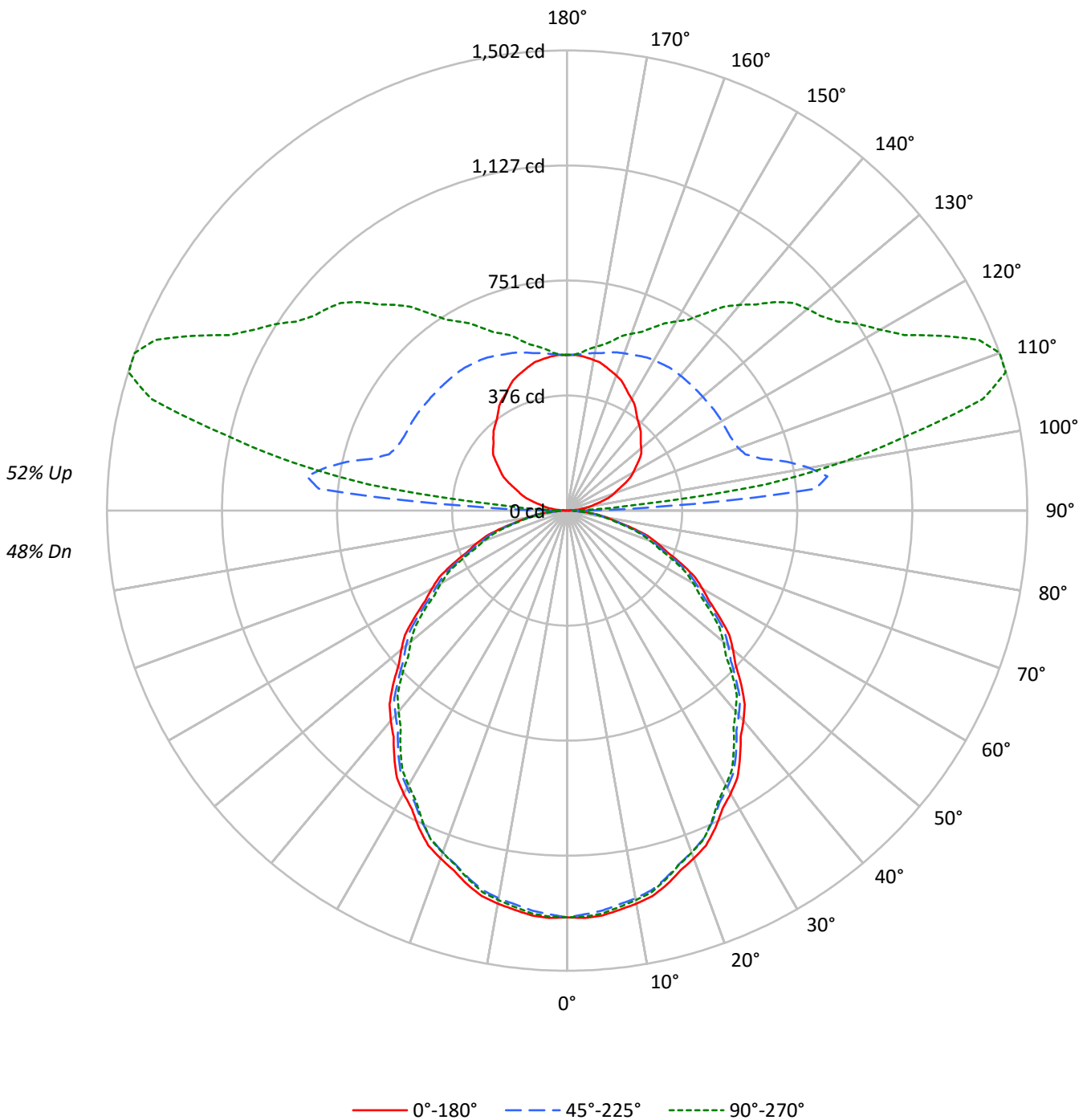
Input Watts (W): 52
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	0	
RCR																						
0	107	107	107	107	98	98	98	98	82	82	82	68	68	68	54	54	54	48				48
1	97	93	89	86	89	86	82	79	72	70	67	59	58	56	48	47	46	40				40
2	89	81	75	70	81	75	70	65	63	59	56	52	49	47	42	40	38	34				34
3	81	71	64	58	74	66	59	54	56	51	47	46	43	40	37	35	33	29				29
4	74	63	55	49	68	58	51	46	49	44	40	41	37	34	33	31	28	25				25
5	68	56	48	42	62	52	45	40	44	39	34	37	33	29	30	27	25	21				21
6	62	50	42	37	57	47	40	34	40	34	30	33	29	26	27	24	22	19				19
7	58	45	38	32	53	42	35	30	36	31	26	30	26	23	25	22	19	17				17
8	54	41	34	28	49	38	31	27	33	27	23	28	23	20	23	20	17	15				15
9	50	38	30	25	46	35	28	24	30	25	21	26	21	18	21	18	16	13				13
10	47	35	27	23	43	32	26	21	28	23	19	24	19	17	20	16	14	12				12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10717	10717	10717
5°	10749	10619	10697
10°	10681	10533	10585
15°	10552	10384	10410
20°	10381	10198	10207
25°	10185	9986	9958
30°	9945	9737	9648
35°	9697	9477	9351
40°	9438	9180	9013
45°	9169	8889	8719
50°	8871	8629	8363
55°	8549	8294	8024
60°	8226	7918	7677
65°	7862	7559	7253
70°	7456	7081	6805
75°	6834	6503	6338
80°	6081	5835	5686
85°	5317	5122	5020



TEST NUMBER: P332615

CATALOG NUMBER: S124DIP-S795D1035U835-4F0-1E-UDD-F4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.0	1.8
10°-20°	352.2	5.0
20°-30°	518.4	7.3
30°-40°	602.7	8.5
40°-50°	602.7	8.5
50°-60°	527.2	7.4
60°-70°	391.5	5.5
70°-80°	222.4	3.1
80°-90°	67.0	0.9
90°-100°	367.0	5.2
100°-110°	763.9	10.8
110°-120°	684.2	9.6
120°-130°	575.5	8.1
130°-140°	479.9	6.8
140°-150°	366.6	5.2
150°-160°	257.7	3.6
160°-170°	151.6	2.1
170°-180°	49.3	0.7
0°-30°	995.7	14.0
0°-40°	1598.4	22.5
0°-60°	2728.3	38.4
0°-90°	3409.3	48.0
90°-120°	1815.1	25.5
90°-150°	3237.1	45.6
90°-180°	3696.0	52.0
0°-180°	7104.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1328	1328	1328	1328	1328	
5°	1326	1322	1310	1321	1320	126
15°	1263	1258	1242	1248	1246	356
25°	1143	1136	1121	1122	1118	526
35°	984	976	962	954	949	615
45°	803	795	779	767	764	619
55°	607	604	589	577	570	544
65°	412	406	396	385	380	407
75°	219	214	208	204	203	233
85°	57	57	55	55	54	63
90°	1	8	18	20	21	5
95°	33	104	814	403	244	37
105°	117	169	655	1410	1405	125
115°	206	258	584	1122	1349	204
125°	286	340	581	955	1076	255
135°	340	405	576	848	962	263
145°	392	449	573	715	786	246
155°	446	482	557	631	658	206
165°	486	501	534	566	574	137
175°	507	508	512	519	517	48
180°	508	508	508	508	508	



TEST NUMBER: P332615

CATALOG NUMBER: S124DIP-S795D1035U835-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1327.5	1327.5	1327.5	1327.5	1327.5	1327.5	1327.5	1327.5	1327.5	1327.5	1327.5
2.5°	1330.9	1330.3	1329.7	1329.2	1328.6	1327.3	1325.2	1323.1	1321.0	1319.0	1320.8
5°	1326.4	1325.5	1324.5	1323.6	1322.6	1320.8	1318.2	1315.6	1313.0	1310.4	1313.0
7.5°	1314.1	1313.1	1312.2	1311.2	1310.3	1308.4	1305.5	1302.6	1299.7	1296.8	1298.9
10°	1303.0	1302.1	1301.1	1300.2	1299.2	1297.2	1294.1	1291.1	1288.0	1284.9	1286.8
12.5°	1288.5	1287.6	1286.6	1285.7	1284.8	1282.6	1279.4	1276.1	1272.9	1269.6	1271.7
15°	1262.6	1261.6	1260.7	1259.7	1258.8	1256.6	1253.0	1249.5	1245.9	1242.4	1243.8
17.5°	1231.3	1230.1	1228.9	1227.8	1226.6	1224.3	1221.0	1217.6	1214.2	1210.9	1211.8
20°	1208.3	1207.1	1206.0	1204.8	1203.6	1201.2	1197.7	1194.1	1190.6	1187.1	1187.8
22.5°	1183.7	1182.1	1180.5	1179.0	1177.4	1174.9	1171.3	1167.8	1164.2	1160.7	1162.0
25°	1143.4	1141.8	1140.1	1138.5	1136.8	1134.3	1131.0	1127.7	1124.4	1121.1	1121.3
27.5°	1097.5	1095.8	1094.1	1092.4	1090.7	1088.3	1085.2	1082.2	1079.1	1076.0	1075.4
30°	1066.9	1065.0	1063.1	1061.2	1059.3	1056.8	1053.7	1050.7	1047.6	1044.5	1043.6
32.5°	1034.5	1032.8	1031.1	1029.4	1027.7	1025.2	1022.0	1018.7	1015.5	1012.2	1011.1
35°	983.9	982.2	980.6	978.9	977.3	974.8	971.5	968.2	964.9	961.6	959.9
37.5°	930.5	929.0	927.5	926.0	924.4	921.9	918.4	914.8	911.3	907.7	905.9
40°	895.6	893.7	891.8	889.9	888.0	885.3	881.8	878.2	874.7	871.1	868.8
42.5°	858.2	857.0	855.9	854.8	853.6	851.1	847.2	843.3	839.3	835.4	832.7
45°	803.1	801.4	799.8	798.1	796.5	793.7	790.0	786.2	782.4	778.6	776.0
47.5°	745.4	744.3	743.2	742.0	740.9	738.6	735.1	731.6	728.1	724.6	721.6
50°	706.3	705.3	704.4	703.4	702.5	700.4	697.1	693.8	690.4	687.1	683.8
52.5°	668.0	666.9	665.7	664.6	663.4	661.1	657.6	654.1	650.6	647.1	644.2
55°	607.4	606.6	605.9	605.2	604.5	602.5	599.2	595.9	592.6	589.3	586.4
57.5°	549.5	548.7	547.9	547.1	546.3	544.2	541.0	537.7	534.5	531.2	528.5
60°	509.5	508.3	507.1	506.0	504.8	502.6	499.6	496.5	493.4	490.4	488.2
62.5°	470.4	469.4	468.4	467.4	466.4	464.3	461.0	457.7	454.5	451.2	449.3
65°	411.6	410.5	409.3	408.1	406.9	405.1	402.8	400.4	398.0	395.7	393.3
67.5°	352.5	351.4	350.3	349.2	348.2	346.5	344.2	341.9	339.7	337.4	335.1
70°	315.9	314.3	312.6	310.9	309.3	307.5	305.6	303.7	301.8	300.0	298.1
72.5°	276.8	275.1	273.5	271.8	270.1	268.6	267.1	265.5	264.0	262.5	261.0
75°	219.1	217.9	216.8	215.6	214.4	213.2	212.0	210.8	209.7	208.5	207.5
77.5°	164.0	163.5	163.0	162.5	161.9	161.2	160.1	159.1	158.0	157.0	156.7
80°	130.8	130.1	129.4	128.7	128.0	127.4	126.9	126.5	126.0	125.5	125.0
82.5°	98.5	98.2	97.8	97.5	97.2	97.0	96.9	96.8	96.7	96.6	96.3
85°	57.4	57.4	57.4	57.4	57.4	57.2	56.7	56.3	55.8	55.3	55.3
87.5°	22.3	22.5	22.9	23.0	23.0	22.8	23.8	23.6	23.8	24.0	23.8
90°	1.0	3.0	6.0	7.0	8.0	8.0	14.0	14.0	16.0	18.0	17.0
92.5°	11.4	16.6	26.0	38.1	52.7	73.5	124.2	201.7	277.1	316.7	263.8
95°	32.9	35.9	45.9	58.9	82.9	124.8	211.6	375.4	614.0	813.6	836.6
97.5°	59.1	59.1	67.7	79.7	100.2	135.4	202.3	337.4	574.6	856.9	1051.0
100°	75.9	75.9	82.9	94.8	113.8	145.8	204.7	317.5	521.1	802.6	1058.2
102.5°	91.8	93.4	99.6	110.8	129.0	159.3	212.6	311.9	485.2	734.8	998.3
105°	116.8	119.8	124.8	136.8	154.7	183.7	231.6	314.5	454.2	654.9	889.5
107.5°	144.4	146.4	151.3	164.1	181.3	209.8	253.8	329.2	448.6	610.2	801.6
110°	162.7	164.7	169.7	181.7	199.7	226.6	270.5	340.4	450.2	595.0	757.7



TEST NUMBER: P332615

CATALOG NUMBER: S124DIP-S795D1035U835-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	180.3	182.3	188.1	199.3	217.2	244.2	286.5	352.4	455.0	587.8	733.0
115°	205.7	208.6	215.6	225.6	244.6	271.5	311.5	371.4	464.2	584.0	709.8
117.5°	232.0	234.8	241.0	252.0	269.7	297.7	335.6	390.7	474.0	583.0	699.4
120°	249.6	251.6	258.6	269.5	286.5	314.5	352.4	404.3	481.2	583.0	693.8
122.5°	265.6	267.5	274.5	284.7	303.3	330.4	368.4	417.1	488.4	582.2	687.4
125°	286.5	290.5	296.5	307.5	326.4	354.4	390.3	436.3	499.2	581.0	676.9
127.5°	305.1	308.3	315.5	328.0	347.8	376.0	410.7	452.8	507.7	578.8	662.7
130°	315.5	319.5	327.4	342.4	361.4	390.3	424.3	463.2	514.1	578.0	653.9
132.5°	325.8	329.0	339.4	353.6	374.2	401.5	435.5	473.6	519.7	577.2	645.9
135°	340.4	344.4	354.4	371.4	392.3	418.3	451.2	487.2	528.1	576.0	633.9
137.5°	355.0	358.8	369.8	385.9	407.7	432.5	463.2	496.8	533.1	575.8	623.5
140°	365.4	368.4	379.4	396.3	417.3	441.3	471.2	503.1	537.1	575.0	618.0
142.5°	376.6	379.6	389.7	405.9	426.1	449.2	478.4	507.9	540.3	575.0	613.2
145°	392.3	395.3	405.3	419.3	438.3	460.2	486.2	513.1	542.1	573.0	605.0
147.5°	410.1	411.1	419.9	434.3	450.0	469.8	494.2	517.7	543.1	569.4	597.6
150°	421.3	422.3	430.3	442.3	457.2	476.2	498.2	520.1	543.1	567.0	592.0
152.5°	431.7	431.9	439.9	451.0	464.4	481.8	501.4	521.7	541.5	563.0	585.6
155°	446.2	447.2	453.2	463.2	474.2	489.2	506.1	523.1	539.1	557.1	576.0
157.5°	460.4	460.4	466.0	473.8	483.4	495.2	509.5	523.1	536.5	550.9	566.2
160°	469.2	469.2	473.2	480.2	488.2	499.2	511.1	523.1	534.1	546.1	559.1
162.5°	477.2	476.4	479.6	485.8	493.0	501.6	512.7	523.1	531.7	541.3	552.7
165°	486.2	486.2	488.2	493.2	498.2	504.1	513.1	521.1	527.1	534.1	542.1
167.5°	495.2	494.2	495.2	499.0	501.8	506.3	512.9	518.7	522.3	526.9	532.5
170°	499.2	498.2	499.2	502.2	504.1	507.1	512.1	517.1	519.1	522.1	526.1
172.5°	503.1	502.2	502.3	504.5	505.7	507.9	511.3	515.5	515.9	517.3	520.5
175°	507.1	506.1	506.1	507.1	508.1	508.1	510.1	513.1	512.1	512.1	514.1
177.5°	508.9	508.1	507.3	508.1	508.1	508.1	508.9	510.5	508.9	508.9	509.7
180°	508.1	508.1	508.1	508.1	508.1	508.1	508.1	508.1	508.1	508.1	508.1



TEST NUMBER: P332615

CATALOG NUMBER: S124DIP-S795D1035U835-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1327.5	1327.5	1327.5	1327.5	1327.5	1327.5	1327.5	1327.5
2.5°	1322.7	1324.6	1326.5	1327.4	1327.2	1327.0	1326.8	1326.6
5°	1315.6	1318.2	1320.8	1321.9	1321.4	1321.0	1320.5	1320.0
7.5°	1301.0	1303.1	1305.1	1306.0	1305.8	1305.5	1305.2	1304.9
10°	1288.7	1290.6	1292.5	1293.2	1292.7	1292.2	1291.8	1291.3
12.5°	1273.8	1275.8	1277.9	1278.6	1278.0	1277.3	1276.6	1276.0
15°	1245.2	1246.6	1248.0	1248.4	1247.7	1247.0	1246.3	1245.6
17.5°	1212.7	1213.6	1214.5	1214.7	1214.2	1213.7	1213.3	1212.8
20°	1188.5	1189.2	1189.9	1190.0	1189.5	1189.1	1188.6	1188.1
22.5°	1163.2	1164.5	1165.8	1166.0	1165.1	1164.3	1163.4	1162.6
25°	1121.6	1121.8	1122.1	1121.7	1120.8	1119.8	1118.9	1117.9
27.5°	1074.9	1074.3	1073.7	1072.9	1071.7	1070.5	1069.3	1068.1
30°	1042.6	1041.7	1040.7	1039.7	1038.5	1037.3	1036.1	1035.0
32.5°	1009.9	1008.8	1007.7	1006.5	1005.3	1004.1	1002.9	1001.8
35°	958.3	956.6	954.9	953.5	952.3	951.2	950.0	948.8
37.5°	904.1	902.3	900.6	898.9	897.3	895.8	894.2	892.6
40°	866.4	864.1	861.7	859.9	858.7	857.6	856.4	855.2
42.5°	829.9	827.2	824.4	822.7	821.9	821.1	820.3	819.5
45°	773.4	770.8	768.2	766.6	765.8	765.1	764.4	763.7
47.5°	718.7	715.8	712.8	710.5	708.7	706.9	705.1	703.3
50°	680.5	677.2	673.9	671.5	670.1	668.7	667.3	665.9
52.5°	641.3	638.3	635.4	633.1	631.3	629.5	627.7	625.9
55°	583.6	580.8	577.9	575.8	574.4	573.0	571.5	570.1
57.5°	525.8	523.1	520.4	518.4	517.0	515.6	514.3	512.9
60°	486.1	484.0	481.8	480.2	479.0	477.8	476.6	475.5
62.5°	447.3	445.4	443.5	441.9	440.7	439.5	438.4	437.2
65°	391.0	388.6	386.2	384.5	383.3	382.1	380.9	379.7
67.5°	332.9	330.6	328.3	327.0	326.7	326.4	326.0	325.7
70°	296.2	294.3	292.4	291.1	290.4	289.7	289.0	288.3
72.5°	259.5	258.0	256.5	255.4	254.6	253.9	253.2	252.5
75°	206.6	205.6	204.7	204.1	203.9	203.6	203.4	203.2
77.5°	156.4	156.1	155.9	155.4	154.8	154.2	153.6	153.0
80°	124.6	124.1	123.6	123.3	123.0	122.8	122.6	122.3
82.5°	96.0	95.7	95.4	95.2	95.0	94.7	94.5	94.2
85°	55.3	55.3	55.3	55.2	55.0	54.7	54.5	54.2
87.5°	24.0	24.2	24.4	24.4	24.6	24.8	24.6	24.6
90°	18.0	19.0	20.0	20.0	21.0	22.0	21.0	21.0
92.5°	196.1	147.6	117.4	97.4	85.7	80.3	76.9	76.9
95°	739.7	585.0	451.2	354.4	305.5	274.5	256.6	243.6
97.5°	1093.0	1035.4	937.8	833.6	761.9	701.8	671.9	651.1
100°	1204.0	1223.9	1175.0	1101.1	1014.3	953.4	923.4	915.5
102.5°	1198.4	1297.4	1311.6	1280.8	1227.5	1183.4	1151.9	1145.5
105°	1118.1	1290.8	1389.6	1430.6	1432.6	1424.6	1410.6	1404.6
107.5°	1004.1	1188.0	1327.2	1416.2	1465.5	1488.3	1498.3	1500.9
110°	935.4	1108.1	1252.9	1362.7	1433.6	1475.5	1493.5	1502.5



TEST NUMBER: P332615

CATALOG NUMBER: S124DIP-S795D1035U835-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	885.1	1037.8	1174.6	1284.4	1364.9	1415.6	1440.8	1455.3
115°	834.6	957.4	1074.2	1170.0	1248.9	1308.8	1340.7	1348.7
117.5°	809.8	911.5	1003.3	1084.6	1151.9	1202.2	1234.5	1240.7
120°	798.6	891.5	971.4	1042.2	1099.1	1143.1	1169.0	1180.0
122.5°	789.1	878.7	951.4	1013.5	1061.6	1099.1	1121.1	1132.1
125°	772.7	858.5	927.4	982.3	1022.3	1051.2	1070.2	1076.2
127.5°	752.7	834.8	903.5	955.6	995.7	1021.5	1037.4	1043.4
130°	736.8	815.6	883.5	936.4	977.3	1002.3	1018.3	1024.3
132.5°	720.0	794.1	860.3	913.3	953.4	981.5	996.7	1002.7
135°	696.8	761.7	822.6	872.5	912.5	940.4	956.4	962.4
137.5°	675.9	730.8	782.1	827.2	864.5	892.1	905.3	912.5
140°	663.9	710.8	755.7	797.6	832.6	854.6	868.5	876.5
142.5°	652.7	694.0	732.6	768.9	799.8	820.2	832.6	838.2
145°	636.9	670.9	700.8	728.8	753.7	770.7	780.7	785.7
147.5°	623.9	650.9	674.9	696.8	715.2	729.8	737.4	739.1
150°	616.0	638.9	658.9	676.9	692.8	705.8	711.8	712.8
152.5°	607.2	626.9	645.3	660.1	673.7	684.2	687.8	688.8
155°	594.0	610.0	624.9	636.9	646.9	654.9	657.9	657.9
157.5°	579.8	593.2	605.8	615.4	622.9	628.9	630.7	630.7
160°	571.0	582.0	593.0	601.0	607.0	613.0	614.0	614.0
162.5°	562.2	571.6	580.2	587.4	591.8	597.8	598.8	598.0
165°	550.1	556.1	563.0	568.0	572.0	576.0	575.0	574.0
167.5°	538.3	542.9	548.5	551.5	553.5	556.1	555.9	555.1
170°	531.1	534.1	538.1	541.1	543.1	544.1	543.1	543.1
172.5°	524.7	526.9	529.3	531.5	532.7	533.7	532.7	531.1
175°	516.1	517.1	519.1	519.1	519.1	521.1	519.1	517.1
177.5°	510.5	511.3	511.3	512.1	511.3	512.1	510.5	508.9
180°	508.1	508.1	508.1	508.1	508.1	508.1	508.1	508.1

(END OF REPORT)