

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: P333249-840

Luminaire Tested: **S125DIP-S850D1205U840-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333249-840
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-19,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DIP-S850D1205U840-4F0-1E-UDD-F4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 1205 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7817.6 lumens
Efficiency: N/A
Efficacy: 137.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: General Diffuse

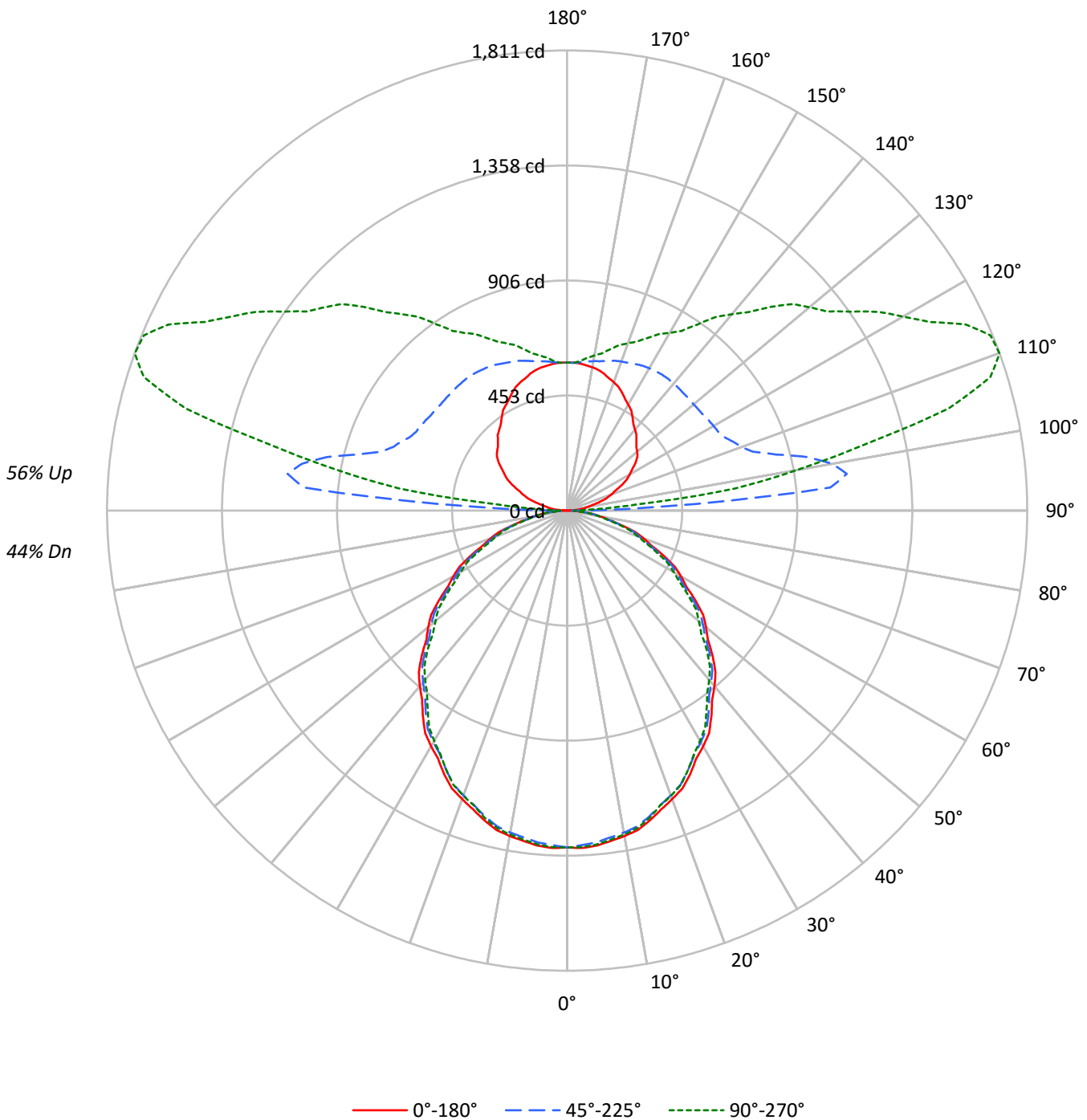
Input Watts (W): 56.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	44
1	96	92	88	85	88	84	81	78	70	68	66	57	55	54	45	44	43	37
2	88	80	74	69	80	74	69	64	61	58	54	50	47	45	39	38	36	31
3	80	71	63	58	73	65	59	53	54	49	46	44	41	38	35	33	31	26
4	73	62	55	49	67	57	51	45	48	43	39	39	35	32	31	28	26	22
5	67	56	48	42	61	51	44	39	43	38	33	35	31	28	28	25	23	20
6	62	50	42	36	56	46	39	34	39	33	29	32	28	25	25	22	20	17
7	57	45	37	31	52	41	34	29	35	30	26	29	25	22	23	20	18	15
8	53	41	33	28	48	38	31	26	32	27	23	26	22	19	21	18	16	14
9	49	37	30	25	45	34	28	23	29	24	20	24	20	17	20	17	14	12
10	46	34	27	22	42	32	25	21	27	22	18	22	18	16	18	15	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8561	8561	8561
5°	8581	8499	8554
10°	8529	8439	8487
15°	8436	8338	8372
20°	8304	8195	8210
25°	8161	8027	8020
30°	7986	7845	7806
35°	7798	7649	7541
40°	7605	7436	7331
45°	7395	7242	7099
50°	7166	7007	6797
55°	6944	6742	6554
60°	6679	6475	6245
65°	6363	6154	5946
70°	6060	5784	5586
75°	5522	5340	5155
80°	4917	4839	4720
85°	4276	4357	4113



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.0	1.6
10°-20°	353.1	4.5
20°-30°	521.3	6.7
30°-40°	608.3	7.8
40°-50°	611.0	7.8
50°-60°	536.3	6.9
60°-70°	399.6	5.1
70°-80°	228.5	2.9
80°-90°	69.7	0.9
90°-100°	421.9	5.4
100°-110°	906.9	11.6
110°-120°	851.1	10.9
120°-130°	689.8	8.8
130°-140°	553.5	7.1
140°-150°	417.7	5.3
150°-160°	294.0	3.8
160°-170°	173.3	2.2
170°-180°	56.4	0.7
0°-30°	999.4	12.8
0°-40°	1607.8	20.6
0°-60°	2755.1	35.2
0°-90°	3453.0	44.2
90°-120°	2179.9	27.9
90°-150°	3840.9	49.1
90°-180°	4365.0	55.8
0°-180°	7817.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1326	1326	1326	1326	1326	
5°	1324	1321	1311	1320	1319	125
15°	1262	1258	1247	1252	1252	355
25°	1145	1140	1126	1128	1125	527
35°	989	984	970	965	956	618
45°	810	805	793	781	777	624
55°	617	613	599	590	582	550
65°	416	414	403	394	389	413
75°	221	219	214	211	207	236
85°	58	59	59	58	56	64
90°	1	11	19	25	27	5
95°	39	114	1040	472	276	41
105°	133	185	851	1675	1555	140
115°	237	286	683	1472	1732	233
125°	328	385	655	1171	1365	291
135°	385	463	650	982	1134	299
145°	448	513	652	813	894	281
155°	512	550	636	719	750	236
165°	559	574	610	647	657	157
175°	581	581	586	593	590	55
180°	582	582	582	582	582	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1325.6	1325.6	1325.6	1325.6	1325.6	1325.6	1325.6	1325.6	1325.6	1325.6	1325.6
2.5°	1329.1	1328.5	1328.0	1327.4	1326.8	1325.5	1323.7	1321.9	1320.0	1318.2	1320.0
5°	1323.6	1323.1	1322.6	1322.2	1321.7	1320.3	1318.0	1315.7	1313.3	1311.0	1313.1
7.5°	1311.4	1311.0	1310.5	1310.0	1309.6	1308.1	1305.5	1302.9	1300.4	1297.8	1299.8
10°	1300.5	1300.1	1299.6	1299.1	1298.7	1297.2	1294.5	1292.0	1289.5	1286.9	1288.8
12.5°	1287.1	1286.3	1285.5	1284.5	1283.7	1282.1	1279.8	1277.4	1275.0	1272.6	1274.1
15°	1261.7	1261.0	1260.3	1259.6	1258.9	1257.3	1254.8	1252.1	1249.6	1247.0	1248.2
17.5°	1232.5	1231.5	1230.5	1229.5	1228.5	1226.6	1224.0	1221.3	1218.6	1216.0	1217.4
20°	1208.2	1207.8	1207.3	1206.8	1206.4	1204.6	1201.5	1198.5	1195.5	1192.4	1194.2
22.5°	1183.9	1183.1	1182.2	1181.3	1180.5	1178.7	1175.9	1173.0	1170.1	1167.3	1168.4
25°	1145.3	1144.2	1143.0	1141.8	1140.6	1138.5	1135.5	1132.5	1129.4	1126.4	1126.9
27.5°	1100.1	1099.5	1098.8	1098.1	1097.4	1095.5	1092.4	1089.2	1086.1	1083.0	1083.1
30°	1070.9	1070.2	1069.4	1068.7	1068.0	1065.9	1062.5	1058.9	1055.4	1052.0	1051.5
32.5°	1038.9	1037.8	1036.8	1035.7	1034.7	1032.6	1029.5	1026.3	1023.2	1020.1	1019.3
35°	989.1	988.1	987.1	986.2	985.3	983.2	980.0	976.6	973.4	970.2	969.0
37.5°	937.3	936.0	934.8	933.7	932.5	930.4	927.4	924.2	921.2	918.2	916.4
40°	902.0	900.8	899.7	898.5	897.3	895.1	891.8	888.6	885.3	882.0	880.0
42.5°	864.2	863.2	862.2	861.3	860.3	858.2	855.0	851.6	848.4	845.2	843.2
45°	809.7	808.7	807.8	806.9	806.0	804.1	801.3	798.5	795.7	792.9	790.1
47.5°	750.9	751.0	751.0	751.0	751.1	749.5	746.1	742.8	739.4	736.1	733.2
50°	713.2	712.5	711.8	711.0	710.4	708.6	705.9	703.1	700.2	697.4	694.4
52.5°	674.6	674.1	673.6	673.1	672.6	670.8	667.8	664.8	661.9	658.8	656.2
55°	616.7	616.0	615.3	614.6	613.9	611.9	608.6	605.4	602.1	598.8	596.7
57.5°	555.6	555.3	554.9	554.5	554.2	552.6	549.9	547.1	544.3	541.6	538.9
60°	517.1	516.1	515.2	514.2	513.3	511.6	509.0	506.4	503.9	501.3	499.0
62.5°	476.8	476.1	475.3	474.5	473.8	472.3	470.2	468.0	465.7	463.5	461.1
65°	416.4	415.9	415.5	415.0	414.5	413.0	410.4	407.9	405.3	402.7	400.6
67.5°	357.9	356.9	355.9	354.9	354.0	352.4	350.6	348.7	346.8	344.9	343.1
70°	320.9	319.7	318.6	317.4	316.3	314.7	312.6	310.4	308.3	306.3	304.9
72.5°	280.6	279.8	279.0	278.3	277.5	276.4	275.1	273.7	272.4	271.0	269.4
75°	221.3	220.9	220.4	219.9	219.4	218.6	217.4	216.3	215.1	214.0	213.3
77.5°	166.5	166.3	166.2	166.0	165.8	165.4	164.7	164.1	163.4	162.8	162.4
80°	132.2	132.2	132.2	132.2	132.2	131.9	131.5	131.0	130.5	130.1	129.9
82.5°	101.9	101.6	101.2	100.8	100.5	100.2	100.1	100.1	100.0	99.9	99.5
85°	57.7	58.0	58.2	58.4	58.6	58.8	58.8	58.8	58.8	58.8	58.5
87.5°	22.9	23.1	23.6	24.0	24.5	24.9	24.9	25.2	25.2	25.5	25.9
90°	1.2	2.3	4.6	7.1	9.4	11.7	12.9	15.2	16.5	18.8	20.0
92.5°	14.3	17.4	27.3	41.8	62.0	96.2	160.3	267.8	384.5	378.3	306.3
95°	38.7	39.9	49.3	62.2	88.0	140.8	266.4	524.5	848.4	1039.7	1017.3
97.5°	64.3	65.7	72.3	85.2	108.5	146.4	229.5	418.7	757.6	1110.2	1287.3
100°	82.1	84.5	89.2	102.1	124.4	159.6	227.6	380.2	675.9	1059.6	1352.9
102.5°	101.9	103.3	107.0	120.9	141.3	175.5	236.1	364.3	613.9	970.4	1313.5
105°	132.6	132.6	138.5	150.2	169.0	201.9	253.5	357.9	553.8	850.7	1187.5
107.5°	162.6	165.0	170.6	180.3	199.8	229.2	279.2	368.7	528.5	768.3	1058.9
110°	184.2	186.6	191.3	201.9	219.4	249.9	298.0	379.0	521.0	729.8	985.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	205.8	208.1	211.9	222.5	240.0	269.6	315.9	392.1	521.0	707.3	931.2
115°	237.0	239.3	242.9	253.5	271.0	300.4	343.9	411.8	524.5	683.0	871.8
117.5°	265.2	268.7	272.5	283.1	303.0	331.3	372.4	434.4	532.3	671.0	836.4
120°	284.0	287.5	292.2	302.8	322.7	352.0	393.1	449.4	539.8	665.3	816.7
122.5°	303.7	306.3	310.0	320.5	342.4	371.7	412.8	466.4	546.3	660.7	799.8
125°	328.5	330.9	336.8	347.3	369.6	400.1	438.9	489.3	557.3	654.8	776.8
127.5°	348.0	351.5	359.1	372.4	396.2	426.7	463.9	510.5	569.8	652.0	755.7
130°	360.2	363.8	373.1	388.4	413.0	443.5	479.9	524.5	577.3	650.1	741.6
132.5°	369.6	374.1	385.4	402.5	428.1	458.6	494.9	536.7	585.7	650.1	730.3
135°	384.9	389.6	403.6	422.4	447.1	478.8	515.1	553.8	597.2	650.1	717.0
137.5°	404.1	407.7	420.8	439.6	463.7	496.3	529.5	566.5	607.8	651.5	705.0
140°	415.4	418.9	433.0	451.8	474.0	505.7	539.8	575.0	612.5	652.4	699.3
142.5°	428.5	431.1	444.2	463.0	484.4	514.2	546.3	579.7	615.3	653.4	694.7
145°	448.3	450.6	462.3	478.8	499.9	526.8	557.3	586.7	618.4	652.4	687.6
147.5°	468.9	470.3	480.4	495.6	513.9	537.7	564.4	591.0	619.6	649.3	680.3
150°	481.1	483.4	491.7	507.0	523.3	543.3	569.1	593.8	619.6	646.5	674.7
152.5°	494.2	495.6	502.9	516.3	531.8	549.9	573.8	595.6	618.6	642.8	668.1
155°	511.6	511.6	518.7	530.4	542.1	558.6	578.5	597.2	616.0	636.0	657.1
157.5°	527.1	526.8	532.5	542.6	552.9	565.3	582.5	598.4	613.0	628.9	646.8
160°	537.5	536.2	541.0	549.2	558.6	569.1	584.4	598.4	610.2	624.3	638.3
162.5°	545.8	544.7	549.4	556.6	564.2	572.9	586.2	597.5	607.3	618.6	630.9
165°	558.6	556.2	559.8	565.6	570.3	577.3	586.7	596.1	603.1	610.2	619.6
167.5°	567.0	565.8	567.9	571.2	574.5	579.0	586.7	593.3	596.5	602.0	608.5
170°	572.6	571.5	572.6	575.0	577.3	580.9	586.7	591.4	593.8	597.2	602.0
172.5°	576.4	574.3	575.4	577.7	579.2	580.9	585.7	589.6	590.0	591.7	595.4
175°	580.9	578.5	579.7	580.9	580.9	580.9	584.4	586.7	585.5	585.5	586.7
177.5°	583.0	581.1	581.1	582.0	581.1	581.1	583.0	583.9	582.0	582.0	583.0
180°	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1325.6	1325.6	1325.6	1325.6	1325.6	1325.6	1325.6	1325.6
2.5°	1321.9	1323.7	1325.5	1326.5	1326.3	1326.1	1325.9	1325.6
5°	1315.2	1317.3	1319.4	1320.3	1320.1	1319.9	1319.6	1319.4
7.5°	1301.9	1303.9	1306.0	1306.9	1306.7	1306.5	1306.2	1306.0
10°	1290.6	1292.5	1294.3	1295.2	1294.9	1294.6	1294.4	1294.2
12.5°	1275.6	1277.1	1278.6	1279.3	1279.3	1279.2	1279.2	1279.1
15°	1249.4	1250.5	1251.7	1252.2	1252.2	1252.2	1252.2	1252.2
17.5°	1218.9	1220.3	1221.7	1221.9	1220.7	1219.6	1218.4	1217.3
20°	1195.8	1197.4	1199.0	1199.2	1198.1	1196.9	1195.8	1194.6
22.5°	1169.4	1170.5	1171.6	1171.7	1170.9	1170.1	1169.3	1168.6
25°	1127.3	1127.8	1128.3	1128.1	1127.5	1126.8	1126.1	1125.4
27.5°	1083.2	1083.3	1083.4	1083.1	1082.4	1081.7	1081.0	1080.3
30°	1051.1	1050.6	1050.1	1049.6	1048.8	1048.1	1047.4	1046.7
32.5°	1018.3	1017.5	1016.7	1015.6	1014.4	1013.1	1011.9	1010.7
35°	967.9	966.6	965.5	964.0	962.1	960.3	958.4	956.5
37.5°	914.6	912.9	911.2	909.8	908.8	907.7	906.7	905.5
40°	877.9	875.8	873.6	872.2	871.5	870.9	870.2	869.5
42.5°	841.3	839.4	837.5	836.0	835.0	833.8	832.7	831.7
45°	787.3	784.5	781.7	779.9	779.3	778.6	777.9	777.2
47.5°	730.3	727.5	724.7	722.5	720.8	719.2	717.5	715.9
50°	691.4	688.3	685.3	683.0	681.4	679.7	678.1	676.5
52.5°	653.6	650.9	648.2	646.0	644.2	642.4	640.6	638.7
55°	594.7	592.6	590.5	588.7	586.9	585.3	583.7	582.1
57.5°	536.2	533.5	530.8	529.0	528.1	527.3	526.3	525.4
60°	496.7	494.3	492.0	490.0	488.4	486.8	485.1	483.5
62.5°	458.6	456.1	453.5	451.6	450.4	449.1	447.9	446.6
65°	398.6	396.5	394.4	392.8	391.9	391.0	390.0	389.1
67.5°	341.3	339.5	337.8	336.6	336.1	335.5	334.9	334.4
70°	303.5	302.1	300.6	299.5	298.5	297.6	296.7	295.8
72.5°	267.8	266.3	264.7	263.4	262.5	261.6	260.6	259.6
75°	212.6	211.9	211.2	210.4	209.4	208.4	207.5	206.6
77.5°	162.0	161.5	161.1	160.6	159.9	159.3	158.6	157.9
80°	129.6	129.4	129.2	128.8	128.4	127.8	127.3	126.9
82.5°	99.0	98.6	98.2	98.0	97.9	97.8	97.7	97.6
85°	58.3	58.1	57.8	57.5	57.0	56.6	56.0	55.5
87.5°	26.1	26.3	26.5	26.8	26.5	26.1	26.0	25.5
90°	21.1	22.3	23.4	25.9	25.9	25.9	27.0	27.0
92.5°	207.9	150.9	113.6	96.2	81.2	78.4	76.7	74.8
95°	843.6	665.3	521.0	422.4	339.1	303.9	294.6	275.8
97.5°	1256.5	1131.5	990.9	853.7	781.2	715.6	681.6	666.5
100°	1443.3	1385.8	1265.0	1142.9	1062.0	977.4	934.0	915.2
102.5°	1506.2	1541.7	1483.7	1401.1	1314.4	1254.4	1207.2	1193.2
105°	1469.2	1629.9	1681.5	1668.6	1631.0	1592.4	1568.8	1554.8
107.5°	1336.8	1551.3	1683.8	1745.1	1764.1	1763.9	1756.2	1746.8
110°	1239.1	1462.1	1627.5	1727.3	1780.1	1802.4	1810.6	1810.6



TEST NUMBER: P333249-840

CATALOG NUMBER: S125DIP-S850D1205U840-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1162.2	1373.8	1541.2	1658.7	1736.0	1774.2	1794.6	1803.1
115°	1065.5	1247.4	1408.1	1536.0	1627.5	1683.8	1716.7	1731.9
117.5°	1003.0	1159.8	1298.3	1415.6	1507.1	1565.4	1598.0	1607.3
120°	969.3	1110.0	1239.1	1342.4	1429.3	1485.5	1517.2	1526.6
122.5°	943.9	1074.4	1189.4	1286.1	1363.5	1415.1	1446.8	1455.3
125°	907.1	1026.7	1128.8	1213.4	1279.0	1327.2	1352.9	1364.7
127.5°	869.5	981.2	1076.5	1155.6	1215.2	1257.7	1282.1	1287.3
130°	846.1	949.3	1040.9	1117.1	1175.8	1214.5	1238.0	1245.0
132.5°	822.5	919.3	1002.3	1075.8	1134.5	1173.2	1194.8	1202.7
135°	792.0	873.0	948.2	1015.0	1066.6	1105.4	1126.5	1133.6
137.5°	766.3	831.7	894.1	951.0	997.1	1032.4	1051.9	1059.6
140°	752.1	807.3	861.3	910.6	954.0	984.5	1002.1	1007.9
142.5°	739.9	786.7	833.1	875.9	912.7	938.5	955.1	960.1
145°	724.0	760.3	796.8	828.4	856.6	876.6	889.5	894.1
147.5°	709.0	738.5	766.5	790.4	812.7	828.7	836.2	838.3
150°	700.5	726.4	748.6	769.7	787.4	801.4	806.2	807.3
152.5°	691.2	714.2	734.6	751.0	765.8	777.0	781.7	782.9
155°	677.0	695.8	712.3	725.2	736.9	745.1	748.6	749.8
157.5°	663.0	678.4	691.2	701.3	710.3	717.2	720.4	720.2
160°	653.6	665.3	677.0	685.3	693.5	699.3	701.8	700.5
162.5°	643.3	654.1	663.9	671.2	677.5	682.5	683.0	682.7
165°	628.9	637.1	644.2	650.1	654.8	657.1	657.1	657.1
167.5°	615.3	620.8	626.1	630.4	632.7	634.8	633.9	633.7
170°	607.8	611.4	614.9	617.2	619.6	620.8	620.8	619.6
172.5°	599.4	602.9	605.5	606.9	607.3	609.5	607.6	606.4
175°	590.3	590.3	592.6	592.6	592.6	593.8	591.4	590.3
177.5°	583.9	584.8	584.8	584.8	583.9	584.8	582.0	582.0
180°	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0

(END OF REPORT)