

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: P333222-840

Luminaire Tested: **S125DIP-S850D590U840-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333222-840
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-S850D590U840-4F0-1E-UDD-F4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 590 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5594.0 lumens
Efficiency: N/A
Efficacy: 138.8 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: Semi-Direct

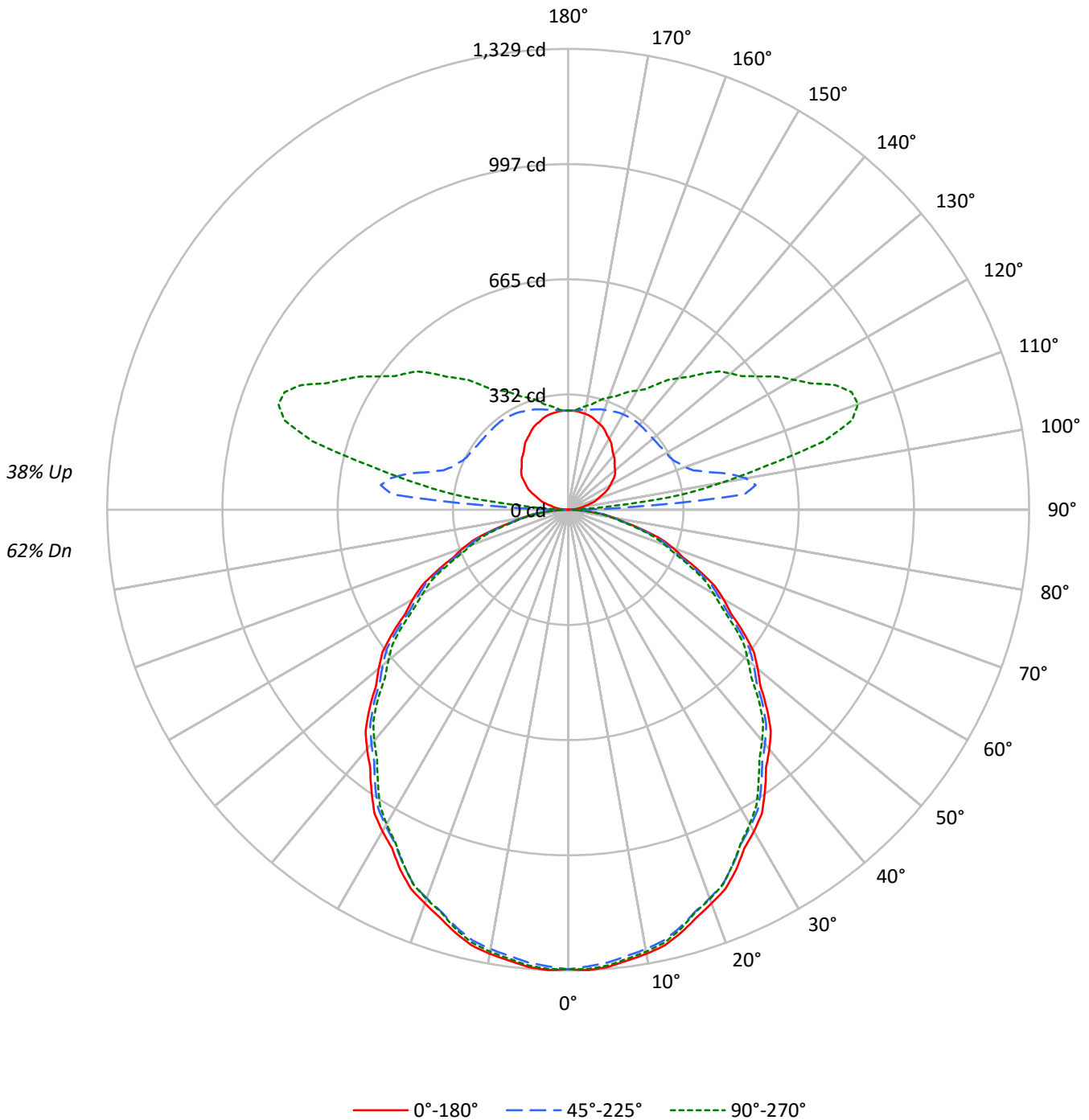
Input Watts (W): 40.3
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	62
1	100	96	92	88	94	90	86	83	79	76	74	68	67	65	59	58	56	52
2	91	84	77	72	85	79	73	68	69	65	61	60	57	54	52	50	47	43
3	83	74	66	60	78	69	62	57	61	56	51	53	49	46	46	43	40	37
4	76	65	57	51	71	61	54	48	54	48	44	47	43	39	41	38	35	31
5	70	58	50	44	65	55	47	42	48	42	38	43	38	34	37	33	30	27
6	65	52	44	38	60	49	42	36	44	38	33	38	34	30	34	30	27	24
7	60	47	39	33	56	45	37	32	40	34	29	35	30	26	31	27	24	21
8	56	43	35	30	52	41	33	28	36	30	26	32	27	24	28	24	21	19
9	52	39	32	26	48	37	30	25	33	27	23	30	25	21	26	22	19	17
10	48	36	29	24	45	34	27	23	31	25	21	27	23	19	24	20	17	16

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	2.2
10°-20°	353.1	6.3
20°-30°	521.3	9.3
30°-40°	608.3	10.9
40°-50°	611.0	10.9
50°-60°	536.3	9.6
60°-70°	399.6	7.1
70°-80°	228.5	4.1
80°-90°	68.1	1.2
90°-100°	207.1	3.7
100°-110°	445.2	8.0
110°-120°	417.8	7.5
120°-130°	338.6	6.1
130°-140°	271.7	4.9
140°-150°	205.1	3.7
150°-160°	144.3	2.6
160°-170°	85.1	1.5
170°-180°	27.7	0.5
0°-30°	999.4	17.9
0°-40°	1607.8	28.7
0°-60°	2755.1	49.3
0°-90°	3451.3	61.7
90°-120°	1070.2	19.1
90°-150°	1885.6	33.7
90°-180°	2143.0	38.3
0°-180°	5594.0	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	5	9	12	13	4
95°	19	56	510	232	135	20
105°	65	91	418	822	763	69
115°	116	140	335	723	850	114
125°	161	189	321	575	670	143
135°	189	227	319	482	556	147
145°	220	252	320	399	439	138
155°	251	270	312	353	368	116
165°	274	282	300	318	323	77
175°	285	285	287	291	290	27
180°	286	286	286	286	286	



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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°	22.7	22.9	23.1	23.3	23.5	23.7	23.6	23.7	23.6	23.6	23.7
90°	0.6	1.1	2.3	3.4	4.6	5.8	6.4	7.5	8.1	9.2	9.8
92.5°	7.1	8.5	13.3	20.5	30.4	47.3	78.7	131.5	188.7	185.7	150.4
95°	19.0	19.6	24.2	30.5	43.2	69.2	130.8	257.5	416.5	510.4	499.5
97.5°	31.6	32.2	35.4	41.8	53.2	71.9	112.7	205.5	371.9	545.0	632.0
100°	40.3	41.5	43.8	50.1	61.1	78.4	111.8	186.6	331.8	520.2	664.2
102.5°	50.0	50.7	52.5	59.4	69.4	86.1	115.9	178.8	301.3	476.4	644.8
105°	65.1	65.1	68.0	73.7	82.9	99.1	124.4	175.7	271.9	417.7	583.0
107.5°	79.9	81.0	83.7	88.5	98.1	112.6	137.1	181.0	259.4	377.2	519.9
110°	90.5	91.6	93.9	99.1	107.8	122.7	146.3	186.0	255.8	358.3	483.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	101.1	102.2	104.0	109.3	117.9	132.4	155.1	192.5	255.8	347.3	457.2
115°	116.3	117.5	119.3	124.4	133.1	147.4	168.7	202.2	257.5	335.3	428.0
117.5°	130.2	131.9	133.8	139.0	148.8	162.7	182.9	213.3	261.3	329.4	410.6
120°	139.4	141.2	143.4	148.7	158.4	172.8	193.0	220.7	265.0	326.6	400.9
122.5°	149.1	150.4	152.2	157.3	168.1	182.5	202.7	228.9	268.2	324.4	392.6
125°	161.3	162.5	165.3	170.5	181.5	196.4	215.4	240.2	273.7	321.4	381.3
127.5°	170.9	172.6	176.3	182.9	194.5	209.4	227.7	250.5	279.7	320.0	371.0
130°	176.8	178.5	183.2	190.7	202.8	217.7	235.6	257.5	283.5	319.1	364.1
132.5°	181.5	183.7	189.1	197.6	210.2	225.1	243.0	263.5	287.6	319.1	358.5
135°	188.9	191.3	198.1	207.4	219.4	235.0	252.9	271.9	293.2	319.1	351.9
137.5°	198.4	200.2	206.6	215.8	227.6	243.7	259.9	278.1	298.4	319.8	346.1
140°	203.9	205.6	212.6	221.8	232.8	248.3	265.0	282.3	300.7	320.3	343.4
142.5°	210.4	211.7	218.1	227.3	237.8	252.5	268.2	284.6	302.1	320.7	341.0
145°	220.0	221.2	226.9	235.0	245.4	258.6	273.7	288.0	303.6	320.3	337.6
147.5°	230.1	230.9	235.8	243.3	252.3	264.0	277.1	290.1	304.2	318.8	334.0
150°	236.2	237.3	241.4	248.8	256.9	266.7	279.4	291.4	304.2	317.4	331.2
152.5°	242.7	243.3	246.9	253.5	261.1	269.9	281.7	292.4	303.7	315.6	328.0
155°	251.2	251.2	254.6	260.3	266.1	274.2	284.0	293.2	302.5	312.3	322.6
157.5°	258.7	258.6	261.5	266.4	271.5	277.5	286.0	293.8	300.9	308.7	317.5
160°	263.9	263.3	265.6	269.6	274.2	279.4	286.9	293.8	299.5	306.5	313.4
162.5°	268.0	267.4	269.7	273.3	277.0	281.2	287.8	293.4	298.2	303.7	309.7
165°	274.2	273.1	274.8	277.6	279.9	283.5	288.0	292.7	296.1	299.5	304.2
167.5°	278.3	277.8	278.8	280.4	282.1	284.2	288.0	291.2	292.9	295.5	298.7
170°	281.1	280.5	281.1	282.3	283.5	285.2	288.0	290.3	291.4	293.2	295.5
172.5°	283.0	282.0	282.5	283.7	284.4	285.2	287.6	289.4	289.6	290.4	292.3
175°	285.2	284.0	284.6	285.2	285.2	285.2	286.9	288.0	287.4	287.4	288.0
177.5°	286.2	285.3	285.3	285.7	285.3	285.3	286.2	286.6	285.7	285.7	286.2
180°	285.7	285.7	285.7	285.7	285.7	285.7	285.7	285.7	285.7	285.7	285.7



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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°	23.9	24.0	24.1	24.1	23.8	23.4	23.1	22.8
90°	10.4	10.9	11.5	12.6	12.6	12.6	13.2	13.2
92.5°	102.1	74.1	55.7	47.3	39.9	38.5	37.7	36.8
95°	414.1	326.6	255.8	207.4	166.5	149.2	144.6	135.4
97.5°	616.8	555.4	486.5	419.1	383.5	351.2	334.6	327.2
100°	708.5	680.3	621.0	561.1	521.3	479.9	458.6	449.3
102.5°	739.4	756.8	728.3	687.8	645.3	615.8	592.7	585.7
105°	721.2	800.1	825.5	819.1	800.7	781.7	770.2	763.3
107.5°	656.2	761.5	826.7	856.7	866.1	866.0	862.1	857.5
110°	608.3	717.8	799.0	848.0	873.8	884.8	888.9	888.9



TEST NUMBER: P333222-840

CATALOG NUMBER: S125DIP-S850D590U840-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	570.6	674.5	756.6	814.4	852.2	871.0	881.0	885.1
115°	523.0	612.4	691.3	754.1	799.0	826.7	842.7	850.3
117.5°	492.4	569.4	637.3	695.0	739.9	768.5	784.5	789.1
120°	475.8	544.9	608.3	659.0	701.7	729.3	744.9	749.4
122.5°	463.4	527.5	583.9	631.4	669.3	694.7	710.2	714.4
125°	445.2	504.0	554.2	595.6	627.9	651.6	664.2	669.9
127.5°	426.9	481.7	528.5	567.3	596.5	617.4	629.3	632.0
130°	415.4	466.1	511.0	548.4	577.2	596.2	607.7	611.2
132.5°	403.8	451.3	492.1	528.2	556.9	575.9	586.5	590.5
135°	388.8	428.6	465.4	498.3	523.6	542.6	553.0	556.4
137.5°	376.2	408.3	439.0	466.9	489.5	506.9	516.3	520.2
140°	369.2	396.4	422.8	447.1	468.4	483.3	491.9	494.8
142.5°	363.2	386.2	409.0	430.0	448.1	460.7	468.9	471.3
145°	355.5	373.2	391.1	406.7	420.5	430.3	436.7	439.0
147.5°	348.1	362.5	376.3	388.0	399.0	406.8	410.5	411.5
150°	343.9	356.6	367.5	377.9	386.6	393.4	395.8	396.4
152.5°	339.3	350.6	360.6	368.7	376.0	381.4	383.7	384.4
155°	332.3	341.6	349.6	356.0	361.7	365.8	367.5	368.1
157.5°	325.5	333.1	339.3	344.3	348.7	352.0	353.7	353.6
160°	320.8	326.6	332.3	336.4	340.4	343.4	344.5	343.9
162.5°	315.8	321.1	325.9	329.5	332.6	335.1	335.3	335.2
165°	308.7	312.8	316.3	319.1	321.4	322.6	322.6	322.6
167.5°	302.1	304.8	307.4	309.4	310.6	311.6	311.1	311.0
170°	298.4	300.1	301.8	303.0	304.2	304.8	304.8	304.2
172.5°	294.3	296.0	297.2	297.9	298.2	299.2	298.3	297.7
175°	289.7	289.7	290.9	290.9	290.9	291.4	290.3	289.7
177.5°	286.6	287.1	287.1	287.1	286.6	287.1	285.7	285.7
180°	285.7	285.7	285.7	285.7	285.7	285.7	285.7	285.7

(END OF REPORT)