

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: P333213

Luminaire Tested: **S125DIP-S850D365U835-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333213
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-S850D365U835-4F0-1E-UDD-F4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 365 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4731.5 lumens
Efficiency: N/A
Efficacy: 135.2 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

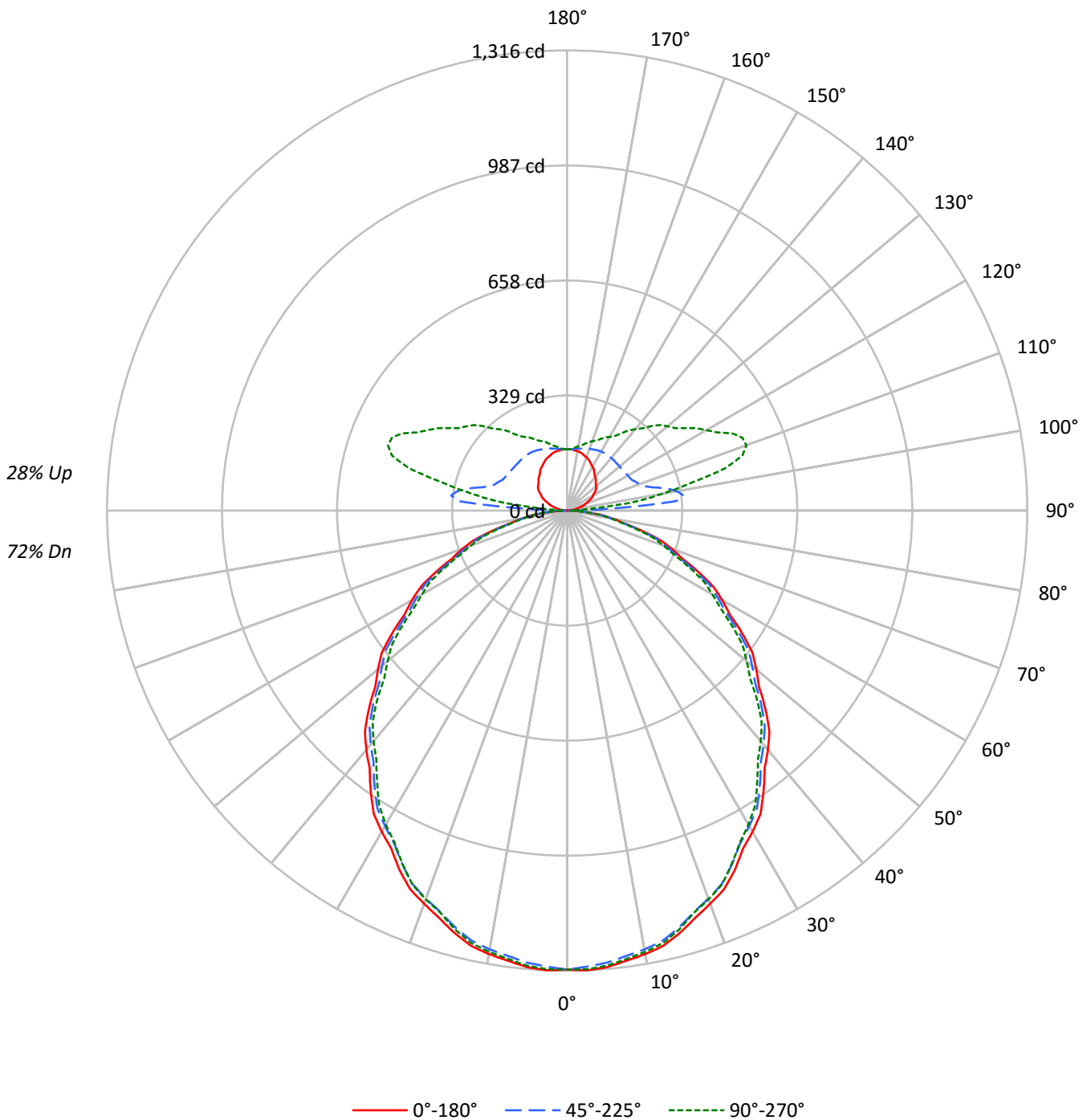
Input Watts (W): 35
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333213

CATALOG NUMBER: S125DIP-S850D365U835-4F0-1E-UDD-F4

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	112	112	112	112	107	107	107	107	96	96	96	86	86	86	77	77	77	72
1	103	98	94	90	97	93	90	86	84	81	79	75	73	71	68	66	65	61
2	93	86	79	74	88	81	76	71	74	69	65	66	63	60	59	57	54	51
3	85	75	68	62	81	72	65	59	65	59	55	59	54	50	53	49	46	43
4	78	67	59	52	74	64	56	50	58	52	47	52	47	43	47	43	40	37
5	72	60	51	45	68	57	49	43	52	45	40	47	42	38	42	38	35	32
6	66	54	45	39	63	51	43	38	47	40	35	42	37	33	38	34	31	28
7	61	49	40	34	58	46	39	33	42	36	31	39	33	29	35	31	27	25
8	57	44	36	31	54	42	35	30	39	32	28	35	30	26	32	28	24	22
9	53	40	33	27	50	39	32	27	36	29	25	33	27	24	30	25	22	20
10	50	37	30	25	47	36	29	24	33	27	23	30	25	21	28	23	20	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8478	8478	8478
5°	8497	8416	8470
10°	8445	8357	8405
15°	8354	8256	8291
20°	8223	8115	8130
25°	8082	7948	7941
30°	7908	7768	7730
35°	7722	7574	7468
40°	7530	7363	7259
45°	7323	7172	7029
50°	7095	6939	6731
55°	6876	6677	6490
60°	6613	6412	6185
65°	6301	6094	5888
70°	6001	5727	5531
75°	5467	5288	5105
80°	4868	4790	4675
85°	4231	4313	4076



TEST NUMBER: P333213

CATALOG NUMBER: S125DIP-S850D365U835-4F0-1E-UDD-F4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.8	2.6
10°-20°	349.6	7.4
20°-30°	516.2	10.9
30°-40°	602.4	12.7
40°-50°	605.0	12.8
50°-60°	531.1	11.2
60°-70°	395.7	8.4
70°-80°	226.3	4.8
80°-90°	66.8	1.4
90°-100°	127.1	2.7
100°-110°	273.1	5.8
110°-120°	256.3	5.4
120°-130°	207.7	4.4
130°-140°	166.7	3.5
140°-150°	125.8	2.7
150°-160°	88.6	1.9
160°-170°	52.2	1.1
170°-180°	17.0	0.4
0°-30°	989.7	20.9
0°-40°	1592.1	33.6
0°-60°	2728.2	57.7
0°-90°	3417.0	72.2
90°-120°	656.5	13.9
90°-150°	1156.8	24.4
90°-180°	1315.0	27.8
0°-180°	4731.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1313	1313	1313	1313	1313	
5°	1311	1308	1298	1307	1306	124
15°	1249	1246	1235	1240	1240	352
25°	1134	1128	1115	1117	1114	522
35°	979	975	961	955	947	612
45°	802	797	785	773	770	618
55°	611	607	593	584	576	545
65°	412	410	399	390	385	409
75°	219	217	212	209	205	234
85°	57	58	58	57	55	64
90°	0	3	6	7	8	4
95°	12	34	313	142	83	12
105°	40	56	256	504	468	42
115°	71	86	206	443	522	70
125°	99	116	197	353	411	88
135°	116	139	196	296	341	90
145°	135	155	196	245	269	85
155°	154	166	192	216	226	71
165°	168	173	184	195	198	47
175°	175	175	176	178	178	17
180°	175	175	175	175	175	



TEST NUMBER: P333213

CATALOG NUMBER: S125DIP-S850D365U835-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1312.7	1312.7	1312.7	1312.7	1312.7	1312.7	1312.7	1312.7	1312.7	1312.7	1312.7
2.5°	1316.1	1315.5	1315.0	1314.4	1313.8	1312.6	1310.8	1309.0	1307.1	1305.3	1307.1
5°	1310.7	1310.2	1309.7	1309.3	1308.8	1307.4	1305.1	1302.8	1300.5	1298.2	1300.3
7.5°	1298.6	1298.2	1297.7	1297.2	1296.8	1295.3	1292.7	1290.2	1287.7	1285.1	1287.1
10°	1287.8	1287.4	1286.9	1286.4	1286.0	1284.5	1281.9	1279.4	1276.9	1274.3	1276.2
12.5°	1274.5	1273.7	1272.9	1272.0	1271.2	1269.6	1267.3	1264.9	1262.5	1260.2	1261.7
15°	1249.4	1248.7	1248.0	1247.3	1246.6	1245.0	1242.5	1239.9	1237.4	1234.8	1236.0
17.5°	1220.5	1219.5	1218.5	1217.5	1216.5	1214.6	1212.0	1209.4	1206.7	1204.1	1205.5
20°	1196.4	1196.0	1195.5	1195.0	1194.6	1192.8	1189.8	1186.8	1183.8	1180.8	1182.5
22.5°	1172.3	1171.5	1170.7	1169.8	1169.0	1167.2	1164.4	1161.5	1158.7	1155.9	1157.0
25°	1134.1	1133.0	1131.8	1130.6	1129.5	1127.4	1124.4	1121.4	1118.4	1115.4	1115.9
27.5°	1089.4	1088.8	1088.1	1087.4	1086.7	1084.8	1081.7	1078.6	1075.5	1072.4	1072.5
30°	1060.4	1059.7	1059.0	1058.3	1057.6	1055.5	1052.1	1048.6	1045.1	1041.7	1041.2
32.5°	1028.8	1027.7	1026.7	1025.6	1024.6	1022.5	1019.4	1016.3	1013.2	1010.1	1009.3
35°	979.4	978.4	977.5	976.6	975.7	973.6	970.4	967.1	963.9	960.7	959.5
37.5°	928.1	926.9	925.7	924.6	923.4	921.3	918.3	915.2	912.2	909.2	907.4
40°	893.2	892.0	890.9	889.7	888.5	886.4	883.1	879.9	876.7	873.4	871.4
42.5°	855.8	854.8	853.8	852.9	851.9	849.8	846.6	843.3	840.1	836.9	835.0
45°	801.8	800.8	799.9	799.0	798.1	796.2	793.5	790.7	787.9	785.2	782.4
47.5°	743.6	743.7	743.7	743.7	743.8	742.2	738.8	735.5	732.2	728.9	726.0
50°	706.2	705.5	704.8	704.1	703.5	701.7	699.0	696.2	693.4	690.6	687.6
52.5°	668.0	667.5	667.0	666.5	666.0	664.2	661.3	658.3	655.4	652.4	649.8
55°	610.7	610.0	609.3	608.6	607.9	605.9	602.7	599.5	596.2	593.0	590.9
57.5°	550.2	549.9	549.5	549.1	548.8	547.2	544.5	541.8	539.0	536.3	533.6
60°	512.0	511.1	510.2	509.2	508.3	506.6	504.0	501.5	499.0	496.4	494.1
62.5°	472.1	471.4	470.7	469.9	469.2	467.7	465.6	463.4	461.2	459.0	456.6
65°	412.3	411.8	411.4	410.9	410.5	409.0	406.4	403.9	401.3	398.8	396.7
67.5°	354.4	353.4	352.4	351.4	350.5	349.0	347.2	345.3	343.4	341.5	339.7
70°	317.8	316.6	315.5	314.3	313.2	311.6	309.5	307.4	305.3	303.3	301.9
72.5°	277.9	277.1	276.3	275.6	274.8	273.7	272.4	271.0	269.7	268.4	266.8
75°	219.1	218.7	218.2	217.8	217.3	216.5	215.3	214.2	213.0	211.9	211.2
77.5°	164.9	164.7	164.6	164.4	164.2	163.8	163.1	162.5	161.8	161.2	160.8
80°	130.9	130.9	130.9	130.9	130.9	130.6	130.2	129.7	129.2	128.8	128.6
82.5°	100.9	100.6	100.2	99.8	99.5	99.2	99.1	99.1	99.0	98.9	98.5
85°	57.1	57.4	57.6	57.8	58.0	58.2	58.2	58.2	58.2	58.2	57.9
87.5°	22.5	22.6	22.7	22.9	23.0	23.0	22.9	22.9	22.8	22.7	22.8
90°	0.4	0.7	1.4	2.1	2.8	3.5	3.9	4.6	4.9	5.7	6.0
92.5°	4.3	5.2	8.2	12.6	18.7	29.0	48.3	80.6	115.8	113.9	92.2
95°	11.7	12.0	14.8	18.7	26.5	42.4	80.2	158.0	255.5	313.1	306.4
97.5°	19.4	19.8	21.8	25.7	32.7	44.1	69.1	126.1	228.2	334.4	387.7
100°	24.7	25.4	26.9	30.7	37.5	48.1	68.6	114.5	203.6	319.1	407.5
102.5°	30.7	31.1	32.2	36.4	42.6	52.9	71.1	109.7	184.9	292.3	395.6
105°	39.9	39.9	41.7	45.2	50.9	60.8	76.3	107.8	166.8	256.2	357.7
107.5°	49.0	49.7	51.4	54.3	60.2	69.1	84.1	111.0	159.2	231.4	318.9
110°	55.5	56.2	57.6	60.8	66.1	75.3	89.8	114.2	156.9	219.8	296.9



TEST NUMBER: P333213

CATALOG NUMBER: S125DIP-S850D365U835-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	62.0	62.7	63.8	67.0	72.3	81.2	95.1	118.1	156.9	213.0	280.5
115°	71.4	72.1	73.2	76.3	81.6	90.5	103.6	124.0	158.0	205.7	262.6
117.5°	79.9	80.9	82.1	85.2	91.3	99.8	112.2	130.8	160.3	202.1	251.9
120°	85.5	86.6	88.0	91.2	97.2	106.0	118.4	135.4	162.6	200.4	246.0
122.5°	91.5	92.2	93.4	96.6	103.1	112.0	124.3	140.4	164.5	199.0	240.9
125°	99.0	99.7	101.4	104.6	111.3	120.5	132.2	147.4	167.9	197.2	234.0
127.5°	104.8	105.9	108.1	112.2	119.3	128.5	139.7	153.7	171.6	196.4	227.6
130°	108.5	109.6	112.4	117.0	124.4	133.6	144.5	158.0	173.9	195.8	223.4
132.5°	111.3	112.7	116.1	121.2	128.9	138.1	149.1	161.7	176.4	195.8	220.0
135°	115.9	117.3	121.6	127.2	134.7	144.2	155.1	166.8	179.9	195.8	215.9
137.5°	121.7	122.8	126.7	132.4	139.7	149.5	159.5	170.6	183.1	196.2	212.3
140°	125.1	126.2	130.4	136.1	142.8	152.3	162.6	173.2	184.5	196.5	210.6
142.5°	129.1	129.8	133.8	139.5	145.9	154.9	164.5	174.6	185.3	196.8	209.2
145°	135.0	135.7	139.2	144.2	150.6	158.7	167.9	176.7	186.2	196.5	207.1
147.5°	141.2	141.6	144.7	149.3	154.8	161.9	170.0	178.0	186.6	195.6	204.9
150°	144.9	145.6	148.1	152.7	157.6	163.6	171.4	178.8	186.6	194.7	203.2
152.5°	148.9	149.3	151.5	155.5	160.2	165.6	172.8	179.4	186.3	193.6	201.2
155°	154.1	154.1	156.2	159.7	163.3	168.2	174.2	179.9	185.5	191.6	197.9
157.5°	158.8	158.7	160.4	163.4	166.5	170.3	175.4	180.2	184.6	189.4	194.8
160°	161.9	161.5	162.9	165.4	168.2	171.4	176.0	180.2	183.8	188.0	192.3
162.5°	164.4	164.1	165.5	167.7	169.9	172.5	176.6	180.0	182.9	186.3	190.0
165°	168.2	167.5	168.6	170.3	171.8	173.9	176.7	179.5	181.7	183.8	186.6
167.5°	170.8	170.4	171.1	172.0	173.0	174.4	176.7	178.7	179.7	181.3	183.3
170°	172.5	172.1	172.5	173.2	173.9	174.9	176.7	178.1	178.8	179.9	181.3
172.5°	173.6	173.0	173.3	174.0	174.4	174.9	176.4	177.6	177.7	178.2	179.3
175°	174.9	174.2	174.6	174.9	174.9	174.9	176.0	176.7	176.4	176.4	176.7
177.5°	175.6	175.0	175.0	175.3	175.0	175.0	175.6	175.9	175.3	175.3	175.6
180°	175.3	175.3	175.3	175.3	175.3	175.3	175.3	175.3	175.3	175.3	175.3



TEST NUMBER: P333213

CATALOG NUMBER: S125DIP-S850D365U835-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1312.7	1312.7	1312.7	1312.7	1312.7	1312.7	1312.7	1312.7
2.5°	1309.0	1310.8	1312.6	1313.5	1313.3	1313.1	1312.9	1312.7
5°	1302.4	1304.4	1306.5	1307.4	1307.2	1307.0	1306.7	1306.5
7.5°	1289.2	1291.2	1293.2	1294.1	1293.9	1293.7	1293.4	1293.2
10°	1278.0	1279.9	1281.7	1282.5	1282.3	1282.0	1281.8	1281.6
12.5°	1263.1	1264.6	1266.1	1266.8	1266.8	1266.7	1266.7	1266.6
15°	1237.2	1238.3	1239.5	1240.0	1240.0	1240.0	1240.0	1240.0
17.5°	1207.0	1208.4	1209.8	1210.0	1208.8	1207.7	1206.5	1205.4
20°	1184.1	1185.7	1187.3	1187.5	1186.4	1185.2	1184.1	1182.9
22.5°	1158.0	1159.1	1160.2	1160.3	1159.5	1158.7	1157.9	1157.2
25°	1116.3	1116.8	1117.3	1117.1	1116.5	1115.8	1115.1	1114.4
27.5°	1072.6	1072.7	1072.8	1072.5	1071.8	1071.1	1070.4	1069.7
30°	1040.8	1040.3	1039.8	1039.3	1038.6	1037.9	1037.2	1036.5
32.5°	1008.4	1007.6	1006.8	1005.7	1004.5	1003.2	1002.0	1000.8
35°	958.4	957.2	956.1	954.6	952.7	950.9	949.0	947.2
37.5°	905.7	904.0	902.3	900.9	899.9	898.8	897.8	896.7
40°	869.3	867.2	865.1	863.7	863.0	862.4	861.7	861.0
42.5°	833.1	831.2	829.3	827.8	826.8	825.7	824.6	823.6
45°	779.6	776.8	774.1	772.3	771.7	771.0	770.3	769.6
47.5°	723.2	720.4	717.6	715.4	713.8	712.2	710.5	708.9
50°	684.6	681.6	678.6	676.3	674.7	673.1	671.5	669.9
52.5°	647.2	644.5	641.9	639.7	637.9	636.1	634.3	632.5
55°	588.9	586.8	584.7	582.9	581.2	579.6	578.0	576.4
57.5°	531.0	528.3	525.6	523.8	522.9	522.1	521.2	520.3
60°	491.8	489.5	487.2	485.2	483.6	482.0	480.4	478.8
62.5°	454.1	451.6	449.1	447.2	446.0	444.7	443.5	442.2
65°	394.7	392.6	390.5	389.0	388.1	387.2	386.2	385.3
67.5°	338.0	336.2	334.5	333.3	332.8	332.2	331.6	331.1
70°	300.5	299.1	297.7	296.6	295.6	294.7	293.8	292.9
72.5°	265.2	263.7	262.1	260.8	259.9	259.0	258.1	257.1
75°	210.5	209.8	209.1	208.3	207.4	206.4	205.5	204.6
77.5°	160.4	159.9	159.5	159.0	158.3	157.7	157.1	156.4
80°	128.3	128.1	127.9	127.5	127.1	126.6	126.1	125.7
82.5°	98.0	97.6	97.2	97.0	96.9	96.8	96.7	96.6
85°	57.7	57.5	57.2	56.9	56.4	56.0	55.5	55.0
87.5°	22.9	22.9	23.0	23.0	22.6	22.2	21.9	21.6
90°	6.4	6.7	7.1	7.8	7.8	7.8	8.1	8.1
92.5°	62.6	45.4	34.2	29.0	24.5	23.6	23.1	22.5
95°	254.1	200.4	156.9	127.2	102.1	91.5	88.7	83.1
97.5°	378.4	340.8	298.4	257.1	235.3	215.5	205.3	200.7
100°	434.7	417.4	381.0	344.2	319.8	294.4	281.3	275.7
102.5°	453.6	464.3	446.9	422.0	395.9	377.8	363.6	359.4
105°	442.5	490.9	506.4	502.6	491.2	479.6	472.5	468.3
107.5°	402.6	467.2	507.1	525.6	531.3	531.3	528.9	526.1
110°	373.2	440.4	490.2	520.2	536.1	542.8	545.3	545.3



TEST NUMBER: P333213

CATALOG NUMBER: S125DIP-S850D365U835-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	350.0	413.8	464.2	499.6	522.8	534.4	540.5	543.1
115°	320.9	375.7	424.1	462.6	490.2	507.1	517.0	521.6
117.5°	302.1	349.3	391.0	426.4	453.9	471.5	481.3	484.1
120°	291.9	334.3	373.2	404.3	430.5	447.4	457.0	459.8
122.5°	284.3	323.6	358.2	387.3	410.7	426.2	435.8	438.3
125°	273.2	309.2	340.0	365.4	385.2	399.7	407.5	411.0
127.5°	261.9	295.5	324.2	348.0	366.0	378.8	386.1	387.7
130°	254.8	285.9	313.5	336.5	354.1	365.8	372.9	375.0
132.5°	247.7	276.9	301.9	324.0	341.7	353.3	359.8	362.2
135°	238.6	262.9	285.6	305.7	321.3	332.9	339.3	341.4
137.5°	230.8	250.5	269.3	286.4	300.3	310.9	316.8	319.1
140°	226.5	243.1	259.4	274.2	287.3	296.5	301.8	303.6
142.5°	222.9	236.9	250.9	263.8	274.9	282.7	287.7	289.2
145°	218.1	229.0	240.0	249.5	258.0	264.0	267.9	269.3
147.5°	213.5	222.4	230.9	238.1	244.8	249.6	251.8	252.5
150°	211.0	218.8	225.5	231.8	237.1	241.4	242.8	243.1
152.5°	208.2	215.1	221.2	226.2	230.6	234.0	235.4	235.8
155°	203.9	209.6	214.5	218.4	221.9	224.4	225.5	225.8
157.5°	199.7	204.3	208.2	211.2	214.0	216.0	217.0	216.9
160°	196.9	200.4	203.9	206.4	208.9	210.6	211.3	211.0
162.5°	193.7	197.0	200.0	202.2	204.1	205.5	205.7	205.6
165°	189.4	191.9	194.0	195.8	197.2	197.9	197.9	197.9
167.5°	185.3	187.0	188.6	189.9	190.6	191.2	190.9	190.8
170°	183.1	184.1	185.2	185.9	186.6	187.0	187.0	186.6
172.5°	180.5	181.6	182.4	182.8	182.9	183.6	183.0	182.6
175°	177.8	177.8	178.5	178.5	178.5	178.8	178.1	177.8
177.5°	175.9	176.1	176.1	176.1	175.9	176.1	175.3	175.3
180°	175.3	175.3	175.3	175.3	175.3	175.3	175.3	175.3

(END OF REPORT)