

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: P333555

Luminaire Tested: **S125RDIP-S850D365U835-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333555
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: S125RDIP-S850D365U835-4F0-1E-UDD-F4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 365 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4564.0 lumens
Efficiency: N/A
Efficacy: 130.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: Semi-Direct

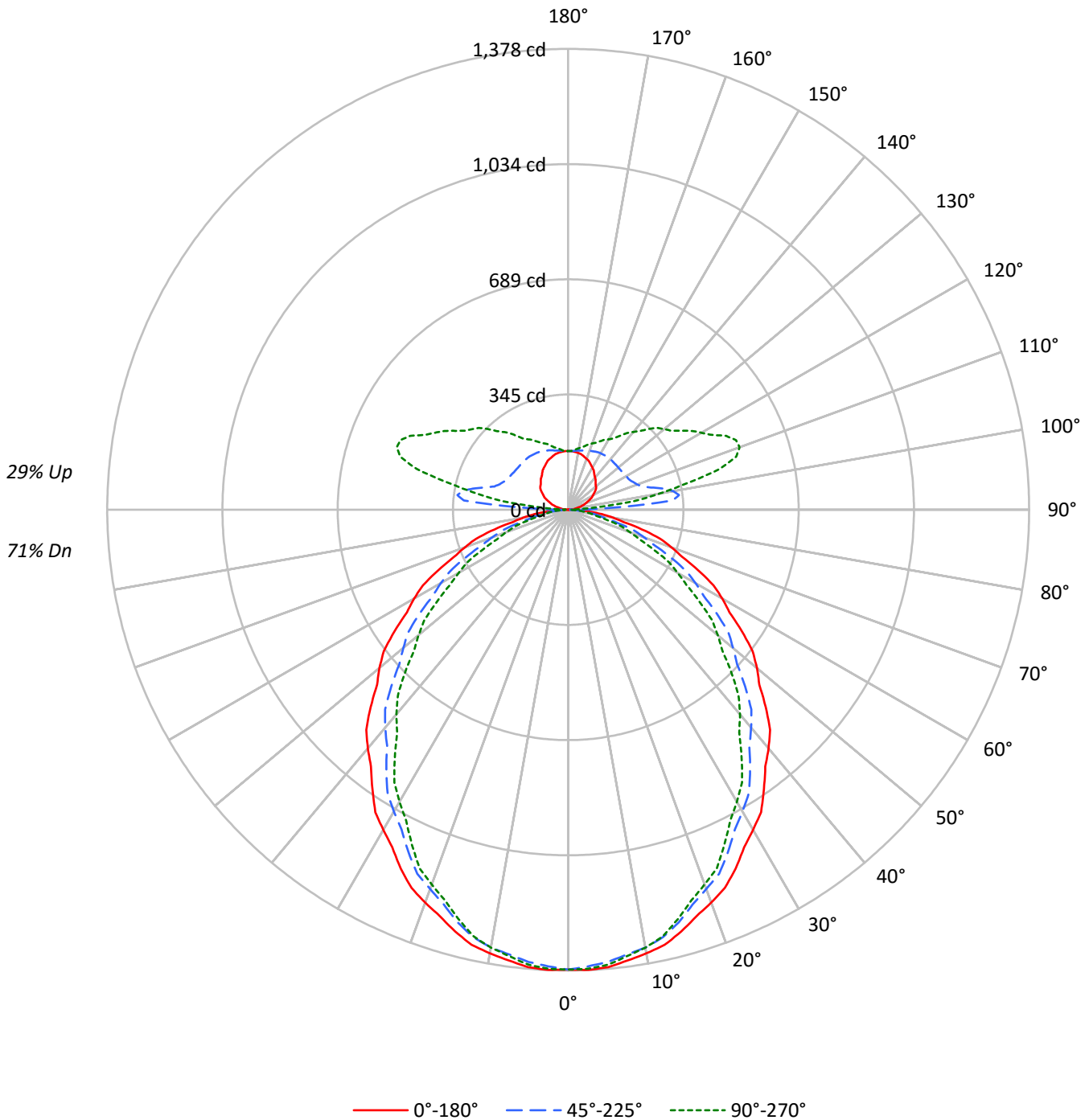
Input Watts (W): 35
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	112	112	112	112	106	106	106	106	95	95	95	85	85	85	76	76	76	71
1	103	99	95	91	97	93	90	87	84	81	79	75	73	72	67	66	65	61
2	94	86	80	75	89	82	77	72	74	70	66	67	63	60	60	57	55	51
3	86	76	69	63	81	73	66	60	66	60	56	59	55	51	53	50	47	44
4	79	68	60	54	74	65	57	52	59	53	48	53	48	44	48	44	41	38
5	73	61	52	46	68	58	50	45	53	46	42	48	43	39	43	39	36	33
6	67	55	46	40	63	52	45	39	48	41	37	43	38	34	39	35	32	29
7	62	50	41	36	59	47	40	35	43	37	32	39	34	30	36	32	28	26
8	58	45	37	32	55	43	36	31	40	33	29	36	31	27	33	29	25	23
9	54	41	34	29	51	40	33	28	36	30	26	33	28	25	31	26	23	21
10	51	38	31	26	48	37	30	25	34	28	24	31	26	22	28	24	21	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8881	8881	8881
5°	8901	8800	8854
10°	8834	8718	8718
15°	8729	8541	8471
20°	8594	8294	8194
25°	8437	8052	7874
30°	8240	7768	7520
35°	8041	7476	7123
40°	7854	7171	6734
45°	7626	6830	6308
50°	7398	6459	5865
55°	7133	6104	5391
60°	6868	5674	4883
65°	6554	5174	4300
70°	6197	4549	3707
75°	5702	3835	3084
80°	5021	3013	2589
85°	4231	2460	2312



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.3	2.8
10°-20°	361.3	7.9
20°-30°	524.0	11.5
30°-40°	597.2	13.1
40°-50°	582.1	12.8
50°-60°	490.0	10.7
60°-70°	343.5	7.5
70°-80°	176.6	3.9
80°-90°	45.6	1.0
90°-100°	127.1	2.8
100°-110°	273.1	6.0
110°-120°	256.3	5.6
120°-130°	207.7	4.6
130°-140°	166.7	3.7
140°-150°	125.8	2.8
150°-160°	88.6	1.9
160°-170°	52.2	1.1
170°-180°	17.0	0.4
0°-30°	1014.6	22.2
0°-40°	1611.8	35.3
0°-60°	2683.9	58.8
0°-90°	3249.5	71.2
90°-120°	656.5	14.4
90°-150°	1156.8	25.3
90°-180°	1315.0	28.8
0°-180°	4564.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1375	1375	1375	1375	1375	
5°	1373	1368	1357	1367	1366	130
15°	1306	1298	1277	1276	1267	368
25°	1184	1167	1130	1117	1105	545
35°	1020	994	948	919	904	638
45°	835	803	748	708	691	644
55°	634	599	542	497	479	566
65°	429	392	339	298	281	425
75°	228	197	154	132	124	242
85°	57	39	33	32	31	64
90°	0	3	6	7	8	3
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	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1
2.5°	1377.5	1377.0	1376.4	1375.9	1375.3	1374.1	1372.3	1370.4	1368.6	1366.7	1368.6
5°	1373.0	1372.1	1371.1	1370.2	1369.3	1367.6	1365.0	1362.5	1359.9	1357.4	1359.7
7.5°	1359.5	1358.6	1357.7	1356.8	1356.0	1354.0	1351.0	1347.9	1344.9	1341.8	1343.4
10°	1347.0	1346.3	1345.6	1344.9	1344.2	1342.3	1339.1	1335.8	1332.6	1329.4	1330.0
12.5°	1332.9	1332.0	1331.1	1330.3	1329.4	1326.8	1322.4	1318.1	1313.8	1309.4	1309.9
15°	1305.5	1304.1	1302.7	1301.3	1299.9	1296.8	1292.0	1287.1	1282.3	1277.4	1277.2
17.5°	1274.5	1272.4	1270.3	1268.2	1266.0	1261.9	1255.8	1249.7	1243.6	1237.5	1236.4
20°	1250.4	1248.1	1245.8	1243.5	1241.2	1236.3	1229.0	1221.6	1214.2	1206.8	1205.7
22.5°	1223.8	1221.5	1219.2	1216.9	1214.6	1209.6	1201.8	1194.1	1186.3	1178.6	1176.3
25°	1184.0	1180.5	1177.0	1173.6	1170.1	1164.1	1155.6	1147.0	1138.5	1130.0	1127.0
27.5°	1138.3	1134.1	1129.9	1125.7	1121.5	1114.8	1105.7	1096.5	1087.4	1078.2	1074.0
30°	1105.0	1100.6	1096.3	1091.9	1087.5	1080.4	1070.8	1061.1	1051.4	1041.7	1036.4
32.5°	1072.6	1067.5	1062.4	1057.3	1052.1	1044.6	1034.8	1024.9	1015.0	1005.1	999.3
35°	1019.9	1014.3	1008.8	1003.2	997.7	989.7	979.4	969.0	958.6	948.2	941.5
37.5°	968.1	961.4	954.7	947.9	941.2	932.5	921.8	911.0	900.3	889.6	881.6
40°	931.6	924.7	917.7	910.8	903.9	894.9	883.8	872.7	861.7	850.6	841.8
42.5°	893.4	886.3	879.2	872.0	864.9	855.7	844.2	832.8	821.3	809.9	801.5
45°	835.0	828.3	821.6	814.9	808.2	798.5	785.8	773.2	760.5	747.8	738.5
47.5°	774.6	767.5	760.4	753.4	746.3	736.4	723.6	710.8	698.0	685.2	675.7
50°	736.3	728.7	721.1	713.5	705.9	695.5	682.3	669.2	656.0	642.9	633.2
52.5°	694.8	687.0	679.2	671.4	663.6	653.5	641.1	628.7	616.2	603.8	593.4
55°	633.5	626.1	618.8	611.4	604.0	593.8	580.9	568.0	555.1	542.1	531.7
57.5°	571.6	563.7	555.8	547.9	540.1	529.9	517.4	504.9	492.5	480.0	469.9
60°	531.7	523.7	515.6	507.5	499.4	489.2	476.7	464.2	451.8	439.3	429.2
62.5°	489.4	481.7	474.0	466.2	458.5	448.4	435.7	423.1	410.4	397.8	388.4
65°	428.9	421.1	413.2	405.4	397.5	387.5	375.3	363.0	350.8	338.6	329.3
67.5°	368.9	361.0	353.2	345.4	337.5	327.7	316.0	304.3	292.6	280.8	272.4
70°	328.2	320.3	312.5	304.6	296.8	287.1	275.6	264.0	252.5	240.9	233.8
72.5°	288.3	280.6	273.0	265.3	257.7	248.4	237.6	226.8	216.0	205.2	198.6
75°	228.5	221.6	214.6	207.7	200.8	192.5	182.8	173.1	163.4	153.7	148.6
77.5°	169.1	163.5	158.0	152.5	146.9	140.3	132.5	124.8	117.0	109.3	105.7
80°	135.0	129.5	123.9	118.4	112.9	106.9	100.4	93.9	87.5	81.0	78.9
82.5°	101.8	96.8	91.8	86.8	81.8	77.1	72.7	68.3	63.8	59.4	58.4
85°	57.1	53.0	48.8	44.7	40.5	37.8	36.7	35.5	34.4	33.2	33.0
87.5°	19.2	18.0	16.8	15.7	14.5	13.9	13.8	13.8	13.6	13.6	13.7
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



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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



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1	1375.1
2.5°	1370.4	1372.3	1374.1	1375.0	1374.8	1374.6	1374.4	1374.2
5°	1362.0	1364.3	1366.6	1367.6	1367.1	1366.6	1366.2	1365.7
7.5°	1345.1	1346.7	1348.3	1348.8	1348.3	1347.8	1347.3	1346.8
10°	1330.7	1331.4	1332.1	1332.1	1331.4	1330.7	1330.0	1329.4
12.5°	1310.4	1310.9	1311.4	1311.2	1310.1	1309.0	1308.0	1306.9
15°	1277.0	1276.7	1276.5	1275.4	1273.3	1271.2	1269.1	1267.0
17.5°	1235.2	1234.1	1232.9	1231.5	1229.8	1228.1	1226.4	1224.7
20°	1204.5	1203.3	1202.2	1200.6	1198.5	1196.4	1194.3	1192.3
22.5°	1174.0	1171.8	1169.5	1167.5	1165.8	1164.1	1162.4	1160.7
25°	1124.0	1121.0	1118.0	1115.2	1112.6	1110.1	1107.6	1105.0
27.5°	1069.8	1065.6	1061.4	1058.1	1055.7	1053.2	1050.8	1048.3
30°	1031.1	1025.8	1020.4	1016.8	1014.7	1012.6	1010.5	1008.4
32.5°	993.4	987.5	981.7	977.4	974.8	972.2	969.5	966.9
35°	934.8	928.1	921.4	916.5	913.2	910.0	906.8	903.5
37.5°	873.6	865.5	857.5	851.9	848.8	845.6	842.5	839.4
40°	833.0	824.3	815.5	809.7	807.0	804.2	801.4	798.7
42.5°	793.1	784.7	776.3	770.0	766.0	761.9	757.8	753.8
45°	729.3	720.1	710.8	704.5	701.0	697.6	694.1	690.6
47.5°	666.2	656.7	647.2	640.5	636.7	632.9	629.0	625.2
50°	623.5	613.8	604.1	597.5	594.1	590.6	587.1	583.7
52.5°	583.0	572.5	562.1	555.1	551.7	548.2	544.8	541.3
55°	521.4	511.0	500.6	493.5	489.9	486.2	482.5	478.8
57.5°	459.7	449.6	439.4	432.7	429.4	426.1	422.9	419.6
60°	419.0	408.8	398.7	391.9	388.4	385.0	381.5	378.0
62.5°	378.9	369.5	360.1	353.7	350.2	346.7	343.3	339.8
65°	320.1	310.9	301.6	295.3	291.8	288.4	284.9	281.4
67.5°	263.9	255.5	247.0	241.4	238.7	235.9	233.1	230.4
70°	226.6	219.5	212.3	207.4	204.6	201.8	199.1	196.3
72.5°	192.0	185.4	178.8	174.6	172.7	170.9	169.1	167.2
75°	143.6	138.5	133.4	130.1	128.4	126.8	125.2	123.6
77.5°	102.1	98.6	95.0	92.7	91.5	90.3	89.1	87.9
80°	76.9	74.8	72.7	71.4	71.0	70.5	70.0	69.6
82.5°	57.5	56.5	55.5	54.9	54.6	54.4	54.1	53.8
85°	32.8	32.5	32.3	32.1	31.8	31.6	31.4	31.2
87.5°	13.7	13.8	13.9	13.9	13.7	13.6	13.4	13.3
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: P333555

CATALOG NUMBER: S125RDIP-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)