

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: P333567-935

Luminaire Tested: **S125RDIP-S850D810U935-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333567-935
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-S850D810U935-4F0-1E-UDD-F4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 810 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5302.8 lumens
Efficiency: N/A
Efficacy: 115.5 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: General Diffuse

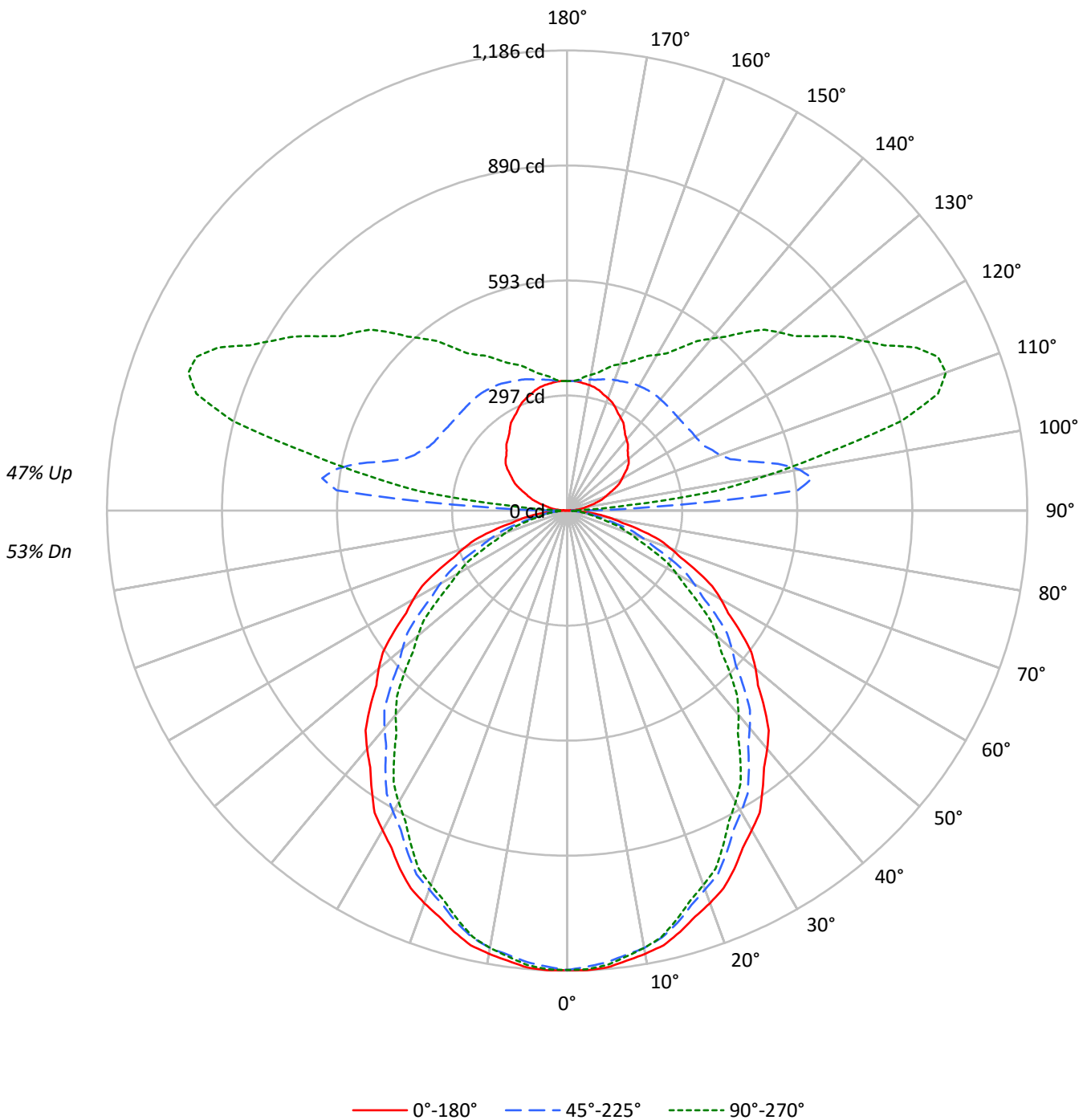
Input Watts (W): 45.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	108	108	108	100	100	100	100	85	85	85	71	71	71	59	59	59	53
1	99	94	91	87	91	88	84	81	75	72	70	63	61	60	52	51	50	45
2	90	83	77	72	83	77	72	67	66	62	58	56	53	50	46	44	42	38
3	82	73	66	60	76	68	61	56	58	53	49	49	46	43	41	39	36	32
4	75	65	57	51	70	60	53	48	52	47	42	44	40	37	37	34	31	28
5	69	58	50	44	64	54	47	41	46	41	37	40	35	32	33	30	28	24
6	64	52	44	38	59	48	41	36	42	36	32	36	32	28	30	27	24	22
7	59	47	39	33	55	44	37	32	38	32	28	33	28	25	28	24	22	19
8	55	43	35	30	51	40	33	28	35	29	25	30	26	22	25	22	20	17
9	51	39	31	26	47	37	30	25	32	26	23	28	23	20	24	20	18	16
10	48	36	29	24	44	34	27	23	29	24	20	26	21	18	22	19	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7647	7647	7647
5°	7664	7577	7623
10°	7606	7506	7506
15°	7515	7353	7294
20°	7399	7142	7056
25°	7264	6933	6780
30°	7095	6689	6475
35°	6923	6437	6133
40°	6762	6175	5798
45°	6566	5881	5431
50°	6370	5561	5050
55°	6141	5255	4641
60°	5913	4885	4204
65°	5644	4455	3703
70°	5336	3916	3191
75°	4908	3301	2655
80°	4322	2592	2228
85°	3646	2119	1993



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.3	2.1
10°-20°	311.1	5.9
20°-30°	451.2	8.5
30°-40°	514.2	9.7
40°-50°	501.2	9.5
50°-60°	421.9	8.0
60°-70°	295.7	5.6
70°-80°	152.0	2.9
80°-90°	40.2	0.8
90°-100°	242.0	4.6
100°-110°	520.3	9.8
110°-120°	488.3	9.2
120°-130°	395.7	7.5
130°-140°	317.6	6.0
140°-150°	239.7	4.5
150°-160°	168.7	3.2
160°-170°	99.4	1.9
170°-180°	32.3	0.6
0°-30°	873.6	16.5
0°-40°	1387.8	26.2
0°-60°	2310.8	43.6
0°-90°	2798.8	52.8
90°-120°	1250.6	23.6
90°-150°	2203.6	41.6
90°-180°	2504.0	47.2
0°-180°	5302.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1184	1184	1184	1184	1184	
5°	1182	1178	1169	1177	1176	112
15°	1124	1118	1100	1099	1091	317
25°	1019	1005	973	961	951	469
35°	878	856	816	791	778	550
45°	719	692	644	609	595	554
55°	545	516	467	428	412	488
65°	369	338	292	257	242	366
75°	197	169	132	113	106	208
85°	49	34	29	28	27	55
90°	1	6	11	14	16	4
95°	22	66	596	271	158	24
105°	76	106	488	961	892	80
115°	136	164	392	845	994	134
125°	188	221	376	672	783	167
135°	221	266	373	563	650	171
145°	257	295	374	466	513	161
155°	294	316	365	412	430	135
165°	320	329	350	371	377	90
175°	333	333	336	340	339	32
180°	334	334	334	334	334	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0
2.5°	1186.0	1185.6	1185.1	1184.6	1184.1	1183.1	1181.6	1179.9	1178.4	1176.7	1178.4
5°	1182.2	1181.4	1180.5	1179.7	1179.0	1177.5	1175.3	1173.1	1170.9	1168.7	1170.7
7.5°	1170.5	1169.8	1169.0	1168.2	1167.5	1165.8	1163.2	1160.5	1158.0	1155.3	1156.7
10°	1159.8	1159.2	1158.6	1158.0	1157.4	1155.7	1153.0	1150.1	1147.4	1144.6	1145.1
12.5°	1147.6	1146.9	1146.1	1145.4	1144.6	1142.4	1138.6	1134.9	1131.2	1127.4	1127.8
15°	1124.0	1122.8	1121.6	1120.4	1119.2	1116.5	1112.4	1108.2	1104.1	1099.8	1099.7
17.5°	1097.3	1095.5	1093.7	1091.9	1090.0	1086.5	1081.2	1076.0	1070.7	1065.5	1064.5
20°	1076.6	1074.6	1072.6	1070.7	1068.7	1064.5	1058.2	1051.8	1045.4	1039.1	1038.1
22.5°	1053.7	1051.7	1049.7	1047.8	1045.8	1041.5	1034.7	1028.1	1021.4	1014.8	1012.8
25°	1019.4	1016.4	1013.4	1010.5	1007.5	1002.3	995.0	987.6	980.2	972.9	970.3
27.5°	980.1	976.5	972.8	969.2	965.6	959.8	952.0	944.1	936.3	928.3	924.7
30°	951.4	947.6	943.9	940.1	936.3	930.2	922.0	913.6	905.3	896.9	892.3
32.5°	923.5	919.1	914.7	910.3	905.9	899.4	891.0	882.4	873.9	865.4	860.4
35°	878.1	873.3	868.6	863.8	859.0	852.1	843.3	834.3	825.4	816.4	810.6
37.5°	833.5	827.8	822.0	816.1	810.4	802.9	793.7	784.4	775.2	765.9	759.1
40°	802.1	796.2	790.1	784.2	778.3	770.5	761.0	751.4	741.9	732.4	724.8
42.5°	769.2	763.1	757.0	750.8	744.7	736.8	726.9	717.0	707.1	697.3	690.1
45°	718.9	713.2	707.4	701.6	695.9	687.5	676.6	665.7	654.8	643.9	635.8
47.5°	666.9	660.8	654.7	648.7	642.6	634.0	623.0	612.0	601.0	590.0	581.8
50°	634.0	627.4	620.9	614.3	607.8	598.8	587.5	576.2	564.8	553.5	545.2
52.5°	598.2	591.5	584.8	578.1	571.4	562.7	552.0	541.3	530.5	519.9	510.9
55°	545.4	539.1	532.8	526.4	520.0	511.3	500.2	489.0	477.9	466.7	457.8
57.5°	492.1	485.3	478.5	471.7	465.0	456.2	445.5	434.7	424.0	413.3	404.6
60°	457.8	450.9	443.9	437.0	430.0	421.2	410.4	399.7	389.0	378.2	369.5
62.5°	421.4	414.7	408.1	401.4	394.8	386.1	375.1	364.3	353.4	342.5	334.4
65°	369.3	362.6	355.8	349.0	342.2	333.6	323.1	312.5	302.0	291.5	283.5
67.5°	317.6	310.8	304.1	297.4	290.6	282.1	272.1	262.0	251.9	241.8	234.5
70°	282.6	275.8	269.1	262.3	255.5	247.2	237.3	227.3	217.4	207.4	201.3
72.5°	248.2	241.6	235.1	228.4	221.9	213.9	204.6	195.3	186.0	176.7	171.0
75°	196.7	190.8	184.8	178.8	172.9	165.7	157.4	149.0	140.7	132.3	127.9
77.5°	145.6	140.8	136.0	131.3	126.5	120.8	114.1	107.5	100.7	94.1	91.0
80°	116.2	111.5	106.7	101.9	97.2	92.0	86.4	80.8	75.3	69.7	67.9
82.5°	87.6	83.3	79.0	74.7	70.4	66.4	62.6	58.8	54.9	51.1	50.3
85°	49.2	45.6	42.0	38.5	34.9	32.5	31.6	30.6	29.6	28.6	28.4
87.5°	16.6	15.6	14.8	13.9	13.1	12.7	12.7	12.8	12.7	12.9	13.0
90°	0.7	1.4	2.7	4.0	5.4	6.7	7.4	8.8	9.4	10.8	11.5
92.5°	8.2	10.0	15.6	23.9	35.6	55.2	92.0	153.6	220.5	217.1	175.7
95°	22.2	22.9	28.2	35.6	50.5	80.8	152.8	300.9	486.7	596.5	583.7
97.5°	36.9	37.7	41.5	48.9	62.2	84.0	131.6	240.2	434.6	637.0	738.5
100°	47.1	48.5	51.1	58.5	71.4	91.5	130.6	218.1	387.8	608.0	776.2
102.5°	58.5	59.2	61.4	69.3	81.0	100.7	135.4	209.0	352.2	556.7	753.6
105°	76.1	76.1	79.5	86.2	96.9	115.8	145.4	205.3	317.8	488.1	681.3
107.5°	93.3	94.6	97.9	103.4	114.6	131.6	160.2	211.5	303.2	440.8	607.5
110°	105.7	107.0	109.7	115.8	125.9	143.4	171.0	217.5	298.9	418.7	565.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	118.0	119.4	121.6	127.6	137.8	154.7	181.2	225.0	298.9	405.8	534.3
115°	136.0	137.3	139.4	145.4	155.5	172.4	197.3	236.3	300.9	391.8	500.2
117.5°	152.1	154.2	156.4	162.4	173.8	190.1	213.7	249.3	305.4	385.0	479.8
120°	162.9	165.0	167.6	173.7	185.1	202.0	225.5	257.9	309.7	381.7	468.6
122.5°	174.3	175.7	177.9	183.9	196.5	213.3	236.9	267.5	313.4	379.0	458.8
125°	188.5	189.9	193.2	199.2	212.1	229.5	251.8	280.7	319.8	375.7	445.7
127.5°	199.7	201.7	206.0	213.7	227.3	244.8	266.2	292.8	326.9	374.0	433.5
130°	206.6	208.7	214.0	222.8	236.9	254.5	275.3	300.9	331.2	373.0	425.5
132.5°	212.1	214.6	221.1	230.9	245.6	263.1	284.0	307.9	336.0	373.0	419.0
135°	220.8	223.5	231.6	242.4	256.5	274.7	295.6	317.8	342.7	373.0	411.3
137.5°	231.9	233.8	241.4	252.2	266.0	284.7	303.8	325.0	348.7	373.8	404.5
140°	238.3	240.3	248.4	259.2	272.0	290.2	309.7	329.8	351.4	374.3	401.2
142.5°	245.8	247.4	254.9	265.6	277.9	295.0	313.4	332.6	353.0	374.9	398.6
145°	257.2	258.5	265.3	274.7	286.8	302.3	319.8	336.6	354.8	374.3	394.5
147.5°	269.0	269.8	275.6	284.4	294.9	308.5	323.8	339.1	355.4	372.6	390.3
150°	276.0	277.3	282.1	290.8	300.2	311.7	326.5	340.6	355.4	370.9	387.1
152.5°	283.5	284.4	288.5	296.2	305.1	315.5	329.2	341.7	354.9	368.8	383.3
155°	293.5	293.5	297.6	304.3	311.0	320.5	331.9	342.7	353.4	364.9	377.0
157.5°	302.4	302.3	305.5	311.3	317.2	324.3	334.2	343.4	351.7	360.8	371.1
160°	308.3	307.6	310.4	315.0	320.5	326.5	335.3	343.4	350.1	358.2	366.3
162.5°	313.1	312.5	315.2	319.3	323.6	328.6	336.3	342.8	348.4	354.9	361.9
165°	320.5	319.1	321.2	324.5	327.2	331.2	336.6	342.0	346.0	350.1	355.4
167.5°	325.3	324.6	325.8	327.7	329.6	332.2	336.6	340.4	342.2	345.3	349.1
170°	328.6	327.9	328.6	329.8	331.2	333.2	336.6	339.3	340.6	342.7	345.3
172.5°	330.7	329.5	330.1	331.5	332.3	333.2	336.0	338.2	338.5	339.4	341.6
175°	333.2	331.9	332.6	333.2	333.2	333.2	335.3	336.6	336.0	336.0	336.6
177.5°	334.4	333.4	333.4	333.9	333.4	333.4	334.4	335.0	333.9	333.9	334.4
180°	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0	1184.0
2.5°	1179.9	1181.6	1183.1	1183.9	1183.7	1183.5	1183.4	1183.2
5°	1172.7	1174.7	1176.6	1177.5	1177.1	1176.6	1176.3	1175.9
7.5°	1158.1	1159.5	1160.9	1161.3	1160.9	1160.5	1160.0	1159.6
10°	1145.7	1146.3	1146.9	1146.9	1146.3	1145.7	1145.1	1144.6
12.5°	1128.3	1128.7	1129.1	1128.9	1128.0	1127.0	1126.2	1125.2
15°	1099.5	1099.2	1099.1	1098.1	1096.3	1094.5	1092.7	1090.9
17.5°	1063.5	1062.6	1061.5	1060.3	1058.9	1057.4	1055.9	1054.5
20°	1037.1	1036.0	1035.1	1033.7	1031.9	1030.1	1028.3	1026.6
22.5°	1010.8	1008.9	1006.9	1005.2	1003.8	1002.3	1000.8	999.4
25°	967.8	965.2	962.6	960.2	957.9	955.8	953.6	951.4
27.5°	921.1	917.5	913.9	911.0	909.0	906.8	904.7	902.6
30°	887.8	883.2	878.6	875.5	873.7	871.8	870.0	868.2
32.5°	855.3	850.2	845.2	841.5	839.3	837.1	834.7	832.5
35°	804.9	799.1	793.3	789.1	786.3	783.5	780.8	777.9
37.5°	752.2	745.2	738.3	733.5	730.8	728.1	725.4	722.7
40°	717.2	709.7	702.1	697.2	694.8	692.4	690.0	687.7
42.5°	682.9	675.6	668.4	663.0	659.5	656.0	652.5	649.0
45°	627.9	620.0	612.0	606.6	603.6	600.6	597.6	594.6
47.5°	573.6	565.4	557.2	551.5	548.2	544.9	541.6	538.3
50°	536.8	528.5	520.1	514.4	511.5	508.5	505.5	502.6
52.5°	502.0	492.9	484.0	477.9	475.0	472.0	469.1	466.1
55°	448.9	440.0	431.0	424.9	421.8	418.6	415.4	412.2
57.5°	395.8	387.1	378.3	372.6	369.7	366.9	364.1	361.3
60°	360.8	352.0	343.3	337.4	334.4	331.5	328.5	325.5
62.5°	326.2	318.1	310.0	304.5	301.5	298.5	295.6	292.6
65°	275.6	267.7	259.7	254.3	251.2	248.3	245.3	242.3
67.5°	227.2	220.0	212.7	207.8	205.5	203.1	200.7	198.4
70°	195.1	189.0	182.8	178.6	176.2	173.7	171.4	169.0
72.5°	165.3	159.6	153.9	150.3	148.7	147.1	145.6	144.0
75°	123.6	119.2	114.9	112.0	110.6	109.2	107.8	106.4
77.5°	87.9	84.9	81.8	79.8	78.8	77.7	76.7	75.7
80°	66.2	64.4	62.6	61.5	61.1	60.7	60.3	59.9
82.5°	49.5	48.6	47.8	47.3	47.0	46.8	46.6	46.3
85°	28.2	28.0	27.8	27.6	27.4	27.2	27.0	26.9
87.5°	13.2	13.3	13.4	13.6	13.4	13.3	13.3	13.1
90°	12.1	12.8	13.4	14.8	14.8	14.8	15.5	15.5
92.5°	119.3	86.6	65.2	55.2	46.6	44.9	44.0	43.0
95°	484.1	381.7	298.9	242.4	194.6	174.4	169.0	158.2
97.5°	720.9	649.1	568.4	489.8	448.2	410.5	391.0	382.4
100°	828.0	795.0	725.7	655.7	609.2	560.8	535.9	525.1
102.5°	864.1	884.5	851.2	803.8	754.1	719.6	692.6	684.5
105°	842.8	935.1	964.8	957.3	935.7	913.5	900.1	892.0
107.5°	766.9	890.0	966.0	1001.2	1012.1	1011.9	1007.5	1002.1
110°	710.9	838.8	933.8	990.9	1021.2	1034.1	1038.8	1038.8



TEST NUMBER: P333567-935

CATALOG NUMBER: S125RDIP-S850D810U935-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	666.8	788.2	884.2	951.7	995.9	1017.9	1029.6	1034.5
115°	611.3	715.7	807.9	881.2	933.8	966.0	984.9	993.7
117.5°	575.5	665.4	744.9	812.2	864.7	898.0	916.8	922.1
120°	556.0	636.9	710.9	770.2	819.9	852.3	870.5	875.8
122.5°	541.6	616.4	682.3	737.9	782.3	811.9	830.1	834.9
125°	520.4	589.1	647.6	696.1	733.8	761.4	776.2	782.9
127.5°	498.9	562.9	617.6	663.0	697.2	721.5	735.6	738.5
130°	485.3	544.7	597.1	640.9	674.6	696.8	710.2	714.3
132.5°	471.9	527.4	575.1	617.2	650.8	673.0	685.4	690.0
135°	454.4	500.8	544.0	582.3	611.9	634.1	646.3	650.3
137.5°	439.6	477.2	513.0	545.5	572.1	592.3	603.5	608.0
140°	431.5	463.1	494.1	522.4	547.3	564.8	574.9	578.2
142.5°	424.6	451.3	477.9	502.5	523.7	538.5	548.0	550.8
145°	415.3	436.3	457.1	475.3	491.5	502.9	510.3	513.0
147.5°	406.7	423.7	439.7	453.5	466.2	475.4	479.7	481.0
150°	401.9	416.7	429.5	441.6	451.8	459.8	462.5	463.1
152.5°	396.5	409.7	421.5	430.8	439.4	445.8	448.5	449.2
155°	388.5	399.2	408.6	416.0	422.8	427.5	429.5	430.2
157.5°	380.4	389.3	396.5	402.3	407.6	411.5	413.4	413.2
160°	375.0	381.7	388.5	393.1	397.9	401.2	402.6	401.9
162.5°	369.0	375.2	380.9	385.0	388.7	391.5	391.8	391.7
165°	360.8	365.6	369.6	373.0	375.7	377.0	377.0	377.0
167.5°	353.0	356.1	359.2	361.6	363.0	364.2	363.7	363.5
170°	348.7	350.8	352.8	354.1	355.4	356.1	356.1	355.4
172.5°	343.9	345.9	347.4	348.2	348.4	349.7	348.6	347.9
175°	338.6	338.6	340.0	340.0	340.0	340.6	339.3	338.6
177.5°	335.0	335.5	335.5	335.5	335.0	335.5	333.9	333.9
180°	333.9	333.9	333.9	333.9	333.9	333.9	333.9	333.9

(END OF REPORT)