

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: P333560-935

Luminaire Tested: **S125RDIP-S850D590U935-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333560-935  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125RDIP-S850D590U935-4F0-1E-UDD-F1  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 590 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4559.5 lumens  
Efficiency: N/A  
Efficacy: 113.1 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

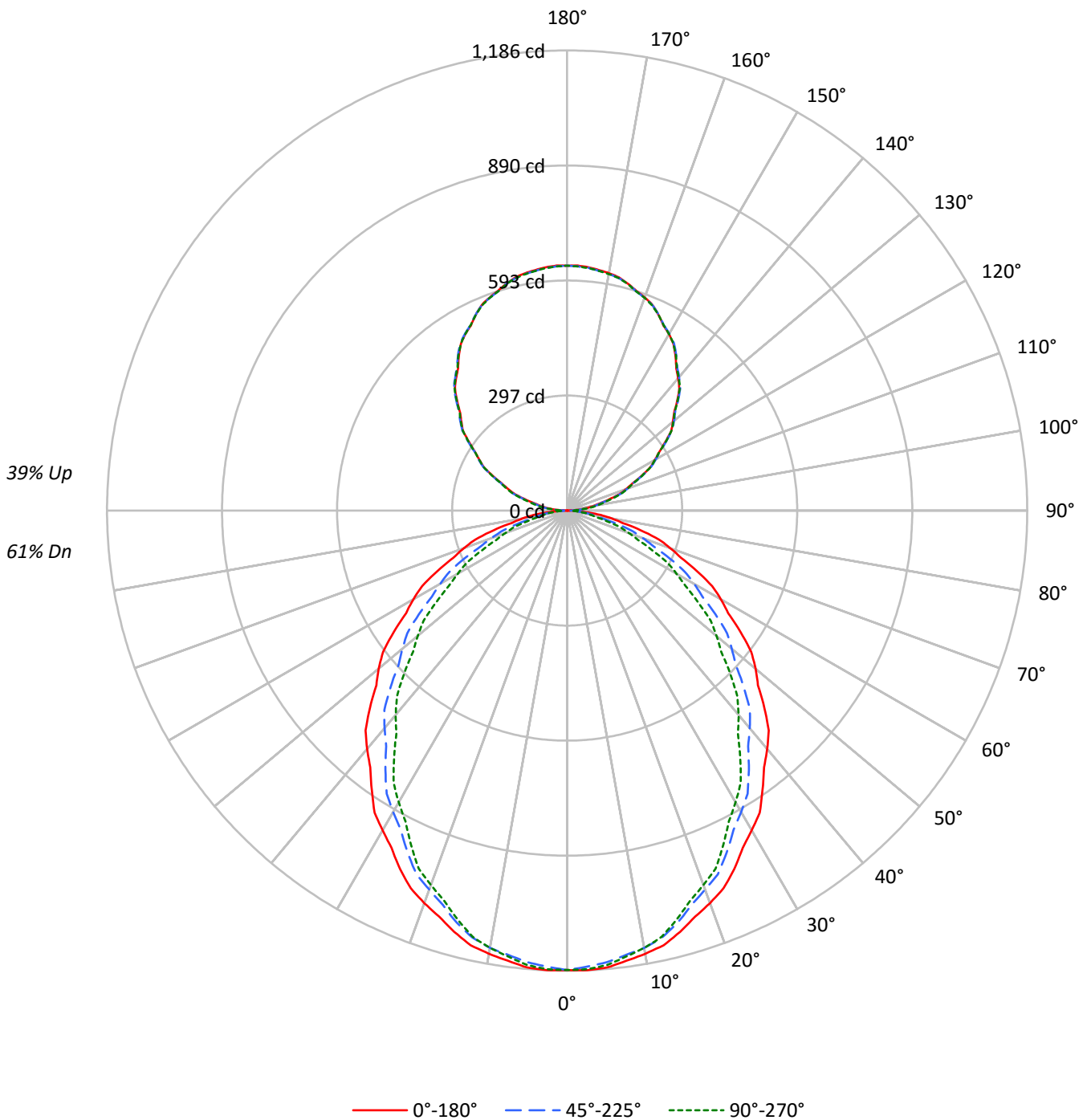
Input Watts (W): 40.3  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20					20						20							20
RC	80					70						30							10
RW	70	50	30	10		70	50	30	10		50	30	10		50	30	10		50
RCR																			
0	110	110	110	110		103	103	103	103		90	90	90		78	78	78		67
1	101	96	92	89		94	90	87	84		79	77	74		69	67	65		59
2	92	84	78	73		86	79	74	69		70	66	62		61	58	55		52
3	84	74	67	61		78	70	63	58		62	57	52		54	50	47		47
4	77	66	58	52		72	62	55	50		55	49	45		48	44	40		42
5	71	59	51	45		66	56	48	43		49	43	39		43	39	35		38
6	65	53	45	39		61	50	43	37		45	39	34		39	35	31		34
7	60	48	40	34		57	45	38	33		41	35	30		36	31	27		32
8	56	44	36	31		53	41	34	29		37	31	27		33	28	25		29
9	52	40	33	27		49	38	31	26		34	28	24		30	26	22		27
10	49	37	30	25		46	35	28	24		31	26	22		28	23	20		25

**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	2.4
10°-20°	311.1	6.8
20°-30°	451.2	9.9
30°-40°	514.2	11.3
40°-50°	501.2	11.0
50°-60°	421.9	9.3
60°-70°	295.7	6.5
70°-80°	152.0	3.3
80°-90°	39.8	0.9
90°-100°	42.3	0.9
100°-110°	124.8	2.7
110°-120°	211.4	4.6
120°-130°	278.3	6.1
130°-140°	311.8	6.8
140°-150°	305.6	6.7
150°-160°	256.7	5.6
160°-170°	170.6	3.7
170°-180°	59.7	1.3
0°-30°	873.6	19.2
0°-40°	1387.8	30.4
0°-60°	2310.8	50.7
0°-90°	2798.3	61.4
90°-120°	378.5	8.3
90°-150°	1274.2	27.9
90°-180°	1761.0	38.6
0°-180°	4559.5	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°	0	4	8	10	12	4
95°	32	33	38	41	42	34
105°	112	114	117	120	122	120
115°	212	214	215	214	214	209
125°	309	312	312	311	311	277
135°	402	405	405	405	403	310
145°	487	489	490	490	489	304
155°	557	557	558	559	557	256
165°	606	605	605	607	604	171
175°	630	628	628	630	627	60
180°	631	631	631	631	631	



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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°	16.5	15.6	14.6	13.8	12.8	12.3	12.3	12.3	12.3	12.3	12.4
90°	0.5	1.4	2.2	3.1	4.0	4.8	5.6	6.4	7.1	7.8	8.4
92.5°	11.9	12.5	13.1	13.7	14.3	15.1	16.0	17.0	17.9	18.9	19.5
95°	31.9	32.1	32.4	32.5	32.8	33.5	34.5	35.6	36.8	37.8	38.6
97.5°	53.0	53.1	53.2	53.3	53.4	54.2	55.7	57.2	58.7	60.2	61.0
100°	68.8	68.8	68.8	68.8	68.8	69.5	70.9	72.3	73.7	75.2	76.1
102.5°	85.7	86.1	86.5	87.0	87.4	88.0	88.7	89.5	90.1	90.8	92.0
105°	112.0	112.5	113.0	113.7	114.2	114.8	115.5	116.1	116.8	117.4	118.0
107.5°	141.0	141.6	142.2	142.7	143.3	143.8	144.3	144.7	145.3	145.8	146.1
110°	161.1	161.6	162.2	162.7	163.3	163.8	164.0	164.4	164.7	165.1	165.4



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	181.5	181.8	182.1	182.4	182.7	183.0	183.5	183.8	184.3	184.7	184.9
115°	211.7	212.2	212.6	213.0	213.4	213.8	214.0	214.2	214.4	214.6	214.6
117.5°	241.9	242.1	242.4	242.5	242.7	243.0	243.1	243.3	243.5	243.7	243.8
120°	260.8	261.4	261.9	262.4	263.0	263.3	263.5	263.6	263.6	263.7	263.7
122.5°	281.3	281.5	281.6	281.8	282.1	282.2	282.6	282.8	283.1	283.4	283.4
125°	308.9	309.6	310.2	310.9	311.6	311.9	312.0	312.2	312.3	312.4	312.2
127.5°	338.5	338.8	339.1	339.5	339.9	340.2	340.3	340.4	340.5	340.7	340.6
130°	356.1	356.6	357.2	357.7	358.3	358.7	358.9	359.1	359.3	359.6	359.5
132.5°	373.8	374.7	375.6	376.4	377.4	377.8	377.7	377.7	377.6	377.6	377.5
135°	401.7	402.4	403.1	403.7	404.4	404.8	404.9	405.0	405.1	405.2	405.2
137.5°	428.1	428.8	429.4	430.0	430.7	431.1	431.4	431.5	431.8	432.0	432.1
140°	445.0	445.6	446.1	446.6	447.2	447.6	448.0	448.3	448.6	448.9	449.2
142.5°	461.9	462.4	462.8	463.3	463.7	464.2	464.6	465.0	465.5	465.8	466.0
145°	486.7	487.2	487.7	488.1	488.5	488.9	489.2	489.6	489.9	490.2	490.2
147.5°	509.7	510.0	510.2	510.5	510.7	510.9	511.2	511.5	511.8	512.0	512.3
150°	525.0	525.0	524.9	524.8	524.6	524.8	525.2	525.6	526.1	526.5	526.5
152.5°	537.6	537.8	538.0	538.1	538.2	538.4	538.6	538.7	538.9	539.2	539.4
155°	557.0	557.0	557.0	557.0	557.0	557.1	557.2	557.2	557.4	557.5	557.9
157.5°	574.3	574.0	573.8	573.6	573.3	573.3	573.3	573.5	573.6	573.7	574.1
160°	584.5	584.2	583.8	583.5	583.2	583.1	583.2	583.3	583.4	583.5	583.9
162.5°	593.6	593.3	593.1	592.8	592.5	592.5	592.5	592.5	592.5	592.5	593.1
165°	605.6	605.4	605.2	604.9	604.8	604.7	604.8	604.9	605.0	605.1	605.5
167.5°	615.9	615.4	614.9	614.5	614.1	613.9	613.9	613.9	613.9	613.9	614.5
170°	621.3	620.9	620.4	620.0	619.6	619.4	619.4	619.4	619.4	619.4	620.0
172.5°	625.3	624.8	624.4	624.0	623.5	623.3	623.3	623.3	623.3	623.3	624.0
175°	629.6	629.2	628.8	628.4	627.9	627.8	627.8	627.8	627.8	627.8	628.4
177.5°	632.0	631.6	631.3	630.9	630.5	630.3	630.3	630.2	630.1	630.0	630.5
180°	631.2	631.2	631.2	631.2	631.2	631.2	631.2	631.2	631.2	631.2	631.2



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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°	12.5	12.7	12.7	12.7	12.7	12.6	12.5	12.4
90°	9.0	9.5	10.1	10.5	10.8	11.1	11.5	11.8
92.5°	20.3	21.0	21.8	22.2	22.5	22.7	22.9	23.2
95°	39.3	40.1	40.9	41.3	41.6	41.8	42.0	42.3
97.5°	61.6	62.4	63.1	63.5	63.6	63.8	63.9	64.1
100°	77.1	78.1	79.0	79.6	79.9	80.2	80.3	80.6
102.5°	93.0	94.1	95.1	95.8	96.2	96.4	96.8	97.0
105°	118.7	119.3	120.0	120.5	120.8	121.1	121.5	121.8
107.5°	146.5	146.8	147.1	147.2	147.2	147.2	147.1	147.1
110°	165.7	166.0	166.3	166.4	166.3	166.3	166.1	166.0





TEST NUMBER: P333560-935

CATALOG NUMBER: S125RDIP-S850D590U935-4F0-1E-UDD-F1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	185.0	185.1	185.3	185.3	185.1	184.9	184.7	184.5
115°	214.4	214.3	214.2	214.1	214.0	213.9	213.8	213.7
117.5°	243.9	244.0	244.1	243.9	243.5	243.1	242.6	242.1
120°	263.7	263.7	263.7	263.6	263.1	262.7	262.3	261.8
122.5°	283.3	283.2	283.1	282.8	282.5	282.1	281.8	281.5
125°	311.9	311.8	311.5	311.3	311.3	311.2	311.0	310.9
127.5°	340.4	340.4	340.3	340.1	339.8	339.7	339.4	339.2
130°	359.3	359.2	359.1	359.0	358.7	358.5	358.3	358.1
132.5°	377.4	377.3	377.2	376.9	376.7	376.3	376.1	375.7
135°	405.2	405.2	405.2	405.0	404.6	404.2	403.7	403.3
137.5°	432.3	432.4	432.6	432.4	431.8	431.3	430.8	430.2
140°	449.4	449.6	449.8	449.6	449.1	448.6	448.0	447.5
142.5°	466.1	466.2	466.3	466.1	465.6	465.0	464.5	464.0
145°	490.2	490.2	490.2	490.0	489.7	489.4	489.0	488.7
147.5°	512.6	512.8	513.1	512.8	512.0	511.3	510.6	509.9
150°	526.5	526.5	526.5	526.4	526.2	526.0	525.8	525.6
152.5°	539.7	539.9	540.2	540.1	539.7	539.3	538.9	538.6
155°	558.4	558.8	559.2	559.2	558.6	558.1	557.5	557.0
157.5°	574.5	575.0	575.4	575.3	574.5	573.9	573.2	572.4
160°	584.4	584.8	585.2	585.2	584.7	584.1	583.6	583.1
162.5°	593.6	594.1	594.7	594.6	594.0	593.3	592.7	592.0
165°	606.0	606.4	606.9	606.7	606.1	605.5	604.8	604.2
167.5°	615.2	615.9	616.5	616.5	615.8	615.1	614.4	613.8
170°	620.7	621.3	622.0	621.9	621.2	620.4	619.7	618.9
172.5°	624.7	625.3	625.9	625.9	625.3	624.6	623.9	623.2
175°	629.0	629.6	630.3	630.3	629.6	628.8	628.0	627.2
177.5°	631.0	631.5	632.1	632.1	631.5	630.9	630.2	629.6
180°	631.2	631.2	631.2	631.2	631.2	631.2	631.2	631.2

(END OF REPORT)