

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: P333561-930

Luminaire Tested: **S125RDIP-S850D590U930-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333561-930  
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-S850D590U930-4F0-1E-UDD-F4  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 850 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED  
HOUSING  
UPLIGHT 590 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4379.7 lumens  
Efficiency: N/A  
Efficacy: 108.7 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

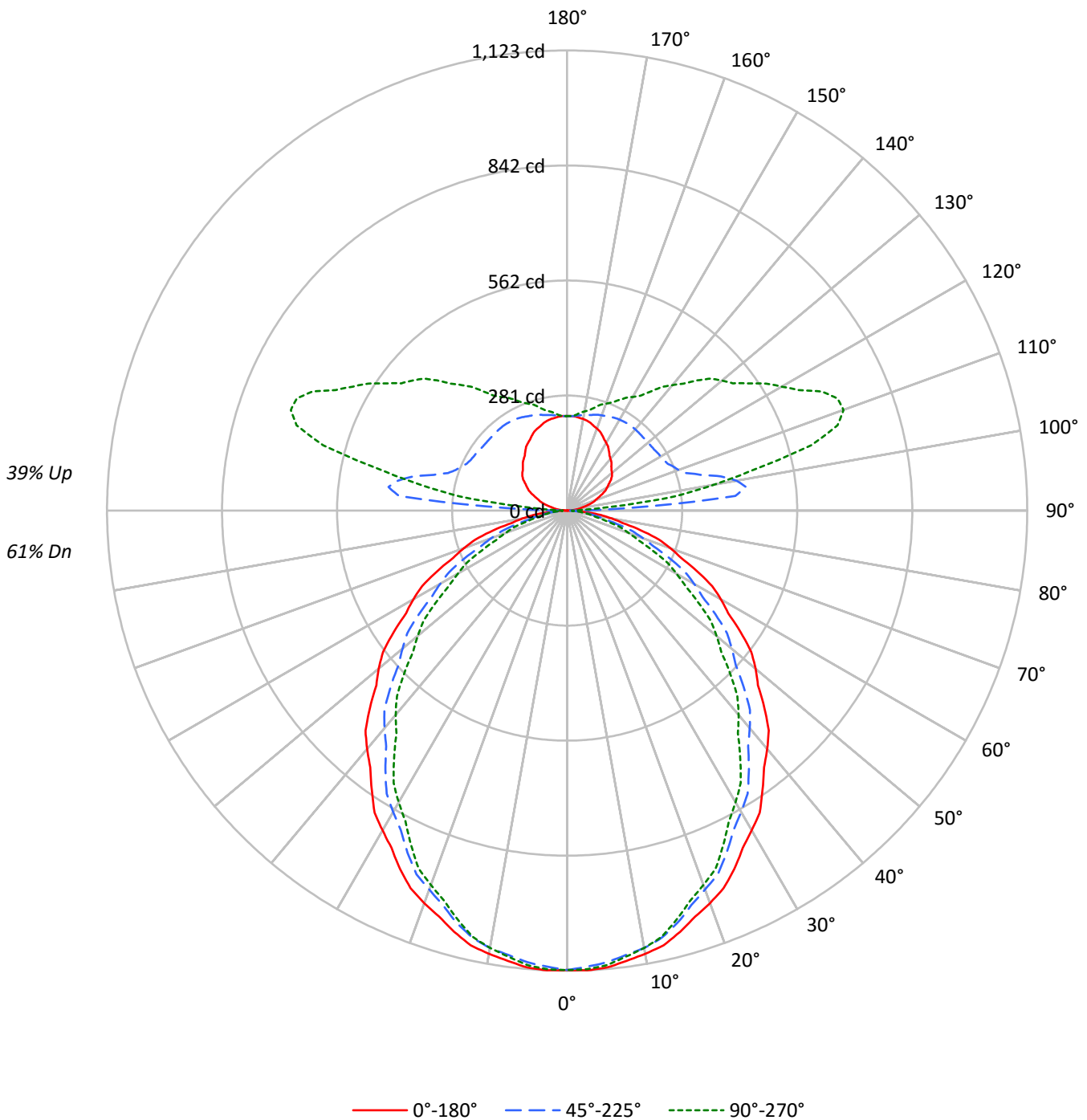
Input Watts (W): 40.3  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20				20				20				20				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	89	89	89	77	77	77	66	66	66	61
1	100	96	92	89	94	90	87	84	79	76	74	68	66	65	59	57	56	52
2	92	84	78	73	85	79	74	69	69	65	62	60	57	54	52	50	48	44
3	84	74	67	61	78	70	63	58	61	56	52	53	50	46	46	43	41	37
4	77	66	58	52	72	62	55	49	55	49	45	48	43	40	41	38	35	32
5	71	59	51	45	66	56	48	43	49	43	39	43	38	35	37	34	31	28
6	65	53	45	39	61	50	43	37	44	38	34	39	34	31	34	30	27	25
7	60	48	40	34	56	45	38	33	40	34	30	36	31	27	31	27	24	22
8	56	44	36	31	52	41	34	29	37	31	27	33	28	24	29	25	22	20
9	52	40	32	27	49	38	31	26	34	28	24	30	25	22	26	23	20	18
10	49	37	29	25	46	35	28	24	31	26	22	28	23	20	25	21	18	16

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	7240	7240	7240
5°	7257	7175	7219
10°	7202	7108	7108
15°	7117	6964	6907
20°	7007	6762	6681
25°	6879	6565	6420
30°	6718	6334	6131
35°	6556	6095	5807
40°	6403	5847	5490
45°	6218	5569	5142
50°	6031	5267	4782
55°	5816	4977	4396
60°	5599	4627	3981
65°	5344	4219	3506
70°	5053	3709	3021
75°	4649	3127	2515
80°	4095	2455	2109
85°	3453	2008	1882



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	105.4	2.4
10°-20°	294.6	6.7
20°-30°	427.2	9.8
30°-40°	486.9	11.1
40°-50°	474.6	10.8
50°-60°	399.5	9.1
60°-70°	280.0	6.4
70°-80°	143.9	3.3
80°-90°	37.6	0.9
90°-100°	167.2	3.8
100°-110°	359.4	8.2
110°-120°	337.3	7.7
120°-130°	273.4	6.2
130°-140°	219.4	5.0
140°-150°	165.6	3.8
150°-160°	116.5	2.7
160°-170°	68.7	1.6
170°-180°	22.3	0.5
0°-30°	827.2	18.9
0°-40°	1314.1	30.0
0°-60°	2188.2	50.0
0°-90°	2649.8	60.5
90°-120°	864.0	19.7
90°-150°	1522.3	34.8
90°-180°	1730.0	39.5
0°-180°	4379.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1121	1121	1121	1121	1121	
5°	1119	1116	1107	1115	1114	106
15°	1064	1059	1042	1040	1033	300
25°	965	952	921	910	901	444
35°	832	810	773	749	737	520
45°	681	655	610	577	563	525
55°	516	488	442	405	390	462
65°	350	320	276	243	229	346
75°	186	160	125	107	101	197
85°	47	32	27	26	25	52
90°	0	4	7	10	11	3
95°	15	45	412	187	109	16
105°	53	73	337	664	616	55
115°	94	113	271	583	686	92
125°	130	153	260	464	541	115
135°	152	183	258	389	449	118
145°	178	203	259	322	354	111
155°	203	218	252	285	297	93
165°	221	227	242	256	260	62
175°	230	230	232	235	234	22
180°	231	231	231	231	231	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1
2.5°	1123.1	1122.7	1122.2	1121.8	1121.3	1120.3	1118.8	1117.3	1115.8	1114.3	1115.8
5°	1119.4	1118.7	1117.9	1117.1	1116.4	1115.0	1112.9	1110.8	1108.7	1106.7	1108.6
7.5°	1108.4	1107.7	1106.9	1106.2	1105.5	1103.9	1101.5	1098.9	1096.5	1094.0	1095.3
10°	1098.2	1097.6	1097.1	1096.5	1095.9	1094.4	1091.8	1089.1	1086.5	1083.9	1084.3
12.5°	1086.7	1086.0	1085.2	1084.6	1083.9	1081.7	1078.2	1074.6	1071.1	1067.6	1068.0
15°	1064.4	1063.2	1062.1	1060.9	1059.8	1057.3	1053.4	1049.4	1045.5	1041.5	1041.3
17.5°	1039.1	1037.4	1035.7	1034.0	1032.2	1028.8	1023.9	1018.9	1013.9	1008.9	1008.0
20°	1019.5	1017.6	1015.7	1013.8	1011.9	1008.0	1002.0	996.0	989.9	983.9	983.0
22.5°	997.8	995.9	994.0	992.1	990.3	986.2	979.8	973.5	967.2	960.9	959.0
25°	965.3	962.5	959.6	956.8	954.0	949.1	942.2	935.1	928.2	921.3	918.8
27.5°	928.1	924.6	921.2	917.8	914.4	908.9	901.5	894.0	886.6	879.1	875.6
30°	900.9	897.3	893.8	890.2	886.6	880.8	873.0	865.1	857.2	849.3	845.0
32.5°	874.5	870.3	866.2	862.0	857.8	851.7	843.7	835.6	827.5	819.5	814.7
35°	831.5	827.0	822.5	817.9	813.4	806.9	798.5	790.0	781.5	773.1	767.6
37.5°	789.3	783.8	778.4	772.8	767.4	760.3	751.5	742.7	734.0	725.3	718.8
40°	759.5	753.9	748.2	742.6	736.9	729.6	720.6	711.5	702.5	693.5	686.3
42.5°	728.4	722.6	716.8	710.9	705.2	697.7	688.3	679.0	669.6	660.3	653.5
45°	680.8	675.3	669.8	664.4	658.9	651.0	640.7	630.4	620.0	609.7	602.1
47.5°	631.5	625.7	620.0	614.2	608.5	600.4	590.0	579.5	569.1	558.6	550.9
50°	600.3	594.1	587.9	581.7	575.5	567.0	556.3	545.6	534.8	524.2	516.2
52.5°	566.5	560.1	553.8	547.4	541.0	532.8	522.7	512.6	502.4	492.3	483.8
55°	516.5	510.5	504.5	498.5	492.4	484.1	473.6	463.1	452.6	442.0	433.5
57.5°	466.0	459.6	453.1	446.7	440.3	432.0	421.8	411.6	401.5	391.3	383.1
60°	433.5	427.0	420.4	413.8	407.2	398.8	388.7	378.5	368.4	358.2	349.9
62.5°	399.0	392.7	386.5	380.1	373.8	365.6	355.2	345.0	334.6	324.3	316.7
65°	349.7	343.3	336.9	330.5	324.1	315.9	306.0	296.0	286.0	276.1	268.5
67.5°	300.8	294.3	288.0	281.6	275.2	267.2	257.6	248.1	238.6	228.9	222.1
70°	267.6	261.1	254.8	248.3	242.0	234.1	224.7	215.2	205.9	196.4	190.6
72.5°	235.1	228.8	222.6	216.3	210.1	202.5	193.7	184.9	176.1	167.3	161.9
75°	186.3	180.7	175.0	169.3	163.7	156.9	149.0	141.1	133.2	125.3	121.2
77.5°	137.9	133.3	128.8	124.3	119.8	114.4	108.0	101.7	95.4	89.1	86.2
80°	110.1	105.6	101.0	96.5	92.0	87.2	81.9	76.6	71.3	66.0	64.3
82.5°	83.0	78.9	74.8	70.8	66.7	62.9	59.3	55.7	52.0	48.4	47.6
85°	46.6	43.2	39.8	36.4	33.0	30.8	29.9	28.9	28.0	27.1	26.9
87.5°	15.7	14.7	13.9	13.0	12.1	11.7	11.7	11.7	11.6	11.7	11.7
90°	0.5	0.9	1.9	2.8	3.8	4.6	5.1	6.0	6.5	7.4	7.9
92.5°	5.7	6.8	10.8	16.6	24.5	38.2	63.5	106.2	152.4	149.9	121.4
95°	15.3	15.8	19.6	24.6	34.9	55.8	105.6	207.9	336.2	412.1	403.2
97.5°	25.5	26.0	28.6	33.8	43.0	58.0	91.0	165.9	300.3	440.0	510.2
100°	32.5	33.5	35.4	40.4	49.3	63.3	90.3	150.7	267.9	420.0	536.2
102.5°	40.4	40.9	42.4	47.9	56.0	69.5	93.6	144.4	243.3	384.6	520.6
105°	52.6	52.6	54.9	59.5	66.9	80.0	100.4	141.9	219.5	337.2	470.7
107.5°	64.5	65.4	67.6	71.4	79.2	90.9	110.7	146.1	209.5	304.5	419.7
110°	73.1	73.9	75.8	80.0	87.0	99.1	118.1	150.2	206.5	289.3	390.7



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	81.6	82.5	84.0	88.2	95.1	106.9	125.2	155.4	206.5	280.4	369.1
115°	93.9	94.9	96.3	100.4	107.5	119.0	136.2	163.2	207.9	270.7	345.5
117.5°	105.1	106.5	108.0	112.2	120.1	131.3	147.7	172.2	210.9	266.0	331.5
120°	112.5	114.0	115.8	120.0	127.9	139.5	155.8	178.1	213.9	263.7	323.7
122.5°	120.3	121.4	122.9	127.0	135.7	147.3	163.6	184.8	216.5	261.9	317.0
125°	130.2	131.2	133.5	137.6	146.5	158.6	173.9	194.0	220.9	259.5	307.9
127.5°	137.9	139.3	142.4	147.7	157.0	169.1	183.8	202.3	225.8	258.4	299.5
130°	142.8	144.1	147.9	153.9	163.7	175.8	190.2	207.9	228.9	257.6	293.9
132.5°	146.5	148.3	152.7	159.6	169.7	181.7	196.2	212.7	232.2	257.6	289.4
135°	152.5	154.4	160.0	167.5	177.2	189.7	204.2	219.5	236.7	257.6	284.1
137.5°	160.2	161.6	166.8	174.2	183.8	196.7	209.9	224.5	240.9	258.2	279.4
140°	164.6	166.0	171.6	179.0	187.9	200.5	213.9	227.9	242.8	258.6	277.2
142.5°	169.8	170.9	176.1	183.5	192.0	203.8	216.5	229.8	243.9	258.9	275.3
145°	177.7	178.6	183.2	189.7	198.1	208.8	220.9	232.5	245.1	258.6	272.6
147.5°	185.8	186.4	190.4	196.4	203.7	213.1	223.7	234.2	245.6	257.4	269.6
150°	190.7	191.6	194.9	200.9	207.4	215.3	225.6	235.3	245.6	256.2	267.4
152.5°	195.9	196.4	199.3	204.6	210.8	217.9	227.4	236.0	245.2	254.8	264.8
155°	202.8	202.8	205.5	210.2	214.8	221.4	229.3	236.7	244.2	252.1	260.4
157.5°	208.9	208.8	211.1	215.1	219.2	224.0	230.9	237.2	243.0	249.2	256.3
160°	213.0	212.5	214.4	217.7	221.4	225.6	231.6	237.2	241.8	247.4	253.0
162.5°	216.4	215.9	217.8	220.6	223.6	227.1	232.4	236.8	240.8	245.2	250.1
165°	221.4	220.5	221.8	224.1	226.0	228.9	232.5	236.3	239.0	241.8	245.6
167.5°	224.7	224.3	225.1	226.4	227.7	229.4	232.5	235.1	236.4	238.6	241.2
170°	227.0	226.5	227.0	227.9	228.9	230.2	232.5	234.4	235.3	236.7	238.6
172.5°	228.4	227.6	228.0	229.0	229.6	230.2	232.2	233.7	233.8	234.5	235.9
175°	230.2	229.3	229.8	230.2	230.2	230.2	231.6	232.5	232.0	232.0	232.5
177.5°	231.1	230.3	230.3	230.6	230.3	230.3	231.1	231.4	230.6	230.6	231.1
180°	230.6	230.6	230.6	230.6	230.6	230.6	230.6	230.6	230.6	230.6	230.6



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1	1121.1
2.5°	1117.3	1118.8	1120.3	1121.0	1120.9	1120.7	1120.5	1120.4
5°	1110.4	1112.3	1114.2	1115.0	1114.6	1114.2	1113.9	1113.5
7.5°	1096.7	1098.0	1099.3	1099.7	1099.3	1098.9	1098.5	1098.0
10°	1084.9	1085.5	1086.1	1086.1	1085.5	1084.9	1084.3	1083.9
12.5°	1068.4	1068.8	1069.2	1069.0	1068.1	1067.2	1066.4	1065.5
15°	1041.1	1040.9	1040.7	1039.8	1038.1	1036.4	1034.7	1033.0
17.5°	1007.1	1006.2	1005.2	1004.0	1002.7	1001.3	999.9	998.5
20°	982.0	981.0	980.2	978.8	977.1	975.4	973.7	972.1
22.5°	957.2	955.4	953.5	951.9	950.5	949.1	947.7	946.3
25°	916.4	914.0	911.5	909.2	907.1	905.1	903.0	900.9
27.5°	872.2	868.8	865.4	862.7	860.7	858.7	856.7	854.7
30°	840.7	836.3	831.9	829.0	827.3	825.6	823.9	822.1
32.5°	809.9	805.1	800.4	796.9	794.8	792.6	790.4	788.3
35°	762.1	756.7	751.2	747.2	744.5	741.9	739.3	736.6
37.5°	712.2	705.6	699.1	694.6	692.0	689.4	686.9	684.4
40°	679.1	672.1	664.9	660.1	657.9	655.7	653.4	651.2
42.5°	646.6	639.8	632.9	627.8	624.5	621.2	617.8	614.6
45°	594.6	587.1	579.5	574.4	571.5	568.8	565.9	563.0
47.5°	543.2	535.4	527.7	522.2	519.1	516.0	512.8	509.7
50°	508.3	500.4	492.5	487.1	484.4	481.5	478.7	475.9
52.5°	475.3	466.8	458.3	452.6	449.8	446.9	444.2	441.3
55°	425.1	416.6	408.1	402.4	399.4	396.4	393.4	390.4
57.5°	374.8	366.6	358.2	352.8	350.1	347.4	344.8	342.1
60°	341.6	333.3	325.1	319.5	316.7	313.9	311.0	308.2
62.5°	308.9	301.3	293.6	288.4	285.5	282.7	279.9	277.0
65°	261.0	253.5	245.9	240.8	237.9	235.1	232.3	229.4
67.5°	215.2	208.3	201.4	196.8	194.6	192.3	190.0	187.8
70°	184.7	179.0	173.1	169.1	166.8	164.5	162.3	160.0
72.5°	156.5	151.2	145.8	142.4	140.8	139.3	137.9	136.3
75°	117.1	112.9	108.8	106.1	104.7	103.4	102.1	100.8
77.5°	83.2	80.4	77.5	75.6	74.6	73.6	72.6	71.7
80°	62.7	61.0	59.3	58.2	57.9	57.5	57.1	56.7
82.5°	46.9	46.1	45.2	44.8	44.5	44.4	44.1	43.9
85°	26.7	26.5	26.3	26.2	25.9	25.8	25.6	25.4
87.5°	11.8	11.9	12.0	12.1	12.0	11.8	11.7	11.7
90°	8.4	8.8	9.3	10.2	10.2	10.2	10.7	10.7
92.5°	82.4	59.8	45.0	38.2	32.2	31.1	30.4	29.7
95°	334.4	263.7	206.5	167.5	134.4	120.4	116.8	109.3
97.5°	498.0	448.4	392.7	338.3	309.7	283.6	270.1	264.2
100°	572.0	549.3	501.3	453.0	420.9	387.4	370.2	362.7
102.5°	597.0	611.0	588.0	555.3	521.0	497.2	478.5	472.9
105°	582.3	646.0	666.4	661.3	646.5	631.1	621.8	616.2
107.5°	529.8	614.8	667.4	691.6	699.2	699.1	696.0	692.3
110°	491.1	579.5	645.1	684.6	705.5	714.4	717.6	717.6





TEST NUMBER: P333561-930

CATALOG NUMBER: S125RDIP-S850D590U930-4F0-1E-UDD-F4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	460.6	544.5	610.8	657.5	688.0	703.2	711.3	714.6
115°	422.2	494.4	558.1	608.8	645.1	667.4	680.4	686.5
117.5°	397.5	459.7	514.5	561.1	597.4	620.4	633.3	637.1
120°	384.2	439.9	491.1	532.1	566.5	588.8	601.4	605.0
122.5°	374.1	425.8	471.4	509.7	540.4	560.8	573.4	576.7
125°	359.5	406.9	447.4	480.9	507.0	526.0	536.2	540.9
127.5°	344.6	388.9	426.6	458.0	481.6	498.5	508.1	510.2
130°	335.3	376.3	412.5	442.7	466.0	481.4	490.6	493.4
132.5°	326.0	364.4	397.3	426.4	449.6	465.0	473.5	476.7
135°	313.9	346.0	375.8	402.3	422.7	438.1	446.5	449.2
137.5°	303.7	329.6	354.4	376.9	395.2	409.2	416.9	420.0
140°	298.1	320.0	341.4	360.9	378.1	390.2	397.1	399.5
142.5°	293.3	311.8	330.2	347.2	361.7	371.9	378.5	380.5
145°	287.0	301.3	315.8	328.3	339.5	347.4	352.5	354.4
147.5°	281.0	292.7	303.8	313.2	322.1	328.4	331.4	332.2
150°	277.6	287.9	296.7	305.1	312.1	317.6	319.5	320.0
152.5°	273.9	283.1	291.1	297.7	303.5	307.9	309.8	310.3
155°	268.3	275.8	282.3	287.4	292.0	295.3	296.7	297.2
157.5°	262.8	268.9	273.9	277.9	281.5	284.2	285.5	285.4
160°	259.0	263.7	268.3	271.6	274.8	277.2	278.1	277.6
162.5°	254.9	259.3	263.1	266.0	268.6	270.5	270.7	270.6
165°	249.2	252.5	255.4	257.6	259.5	260.4	260.4	260.4
167.5°	243.9	246.1	248.2	249.8	250.8	251.6	251.2	251.1
170°	240.9	242.3	243.7	244.6	245.6	246.1	246.1	245.6
172.5°	237.6	239.0	239.9	240.5	240.8	241.6	240.8	240.4
175°	233.9	233.9	234.9	234.9	234.9	235.3	234.4	233.9
177.5°	231.4	231.8	231.8	231.8	231.4	231.8	230.6	230.6
180°	230.6	230.6	230.6	230.6	230.6	230.6	230.6	230.6

(END OF REPORT)