

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: P332322-940

Luminaire Tested: **S123RDIP-S775D1025U940-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332322-940
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-9,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123RDIP-S775D1025U940-4F0-1E-UDD-F1
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 775 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 1025 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5743.6 lumens
Efficiency: N/A
Efficacy: 110.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.06 / 1.22
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')
CIE Type: General Diffuse

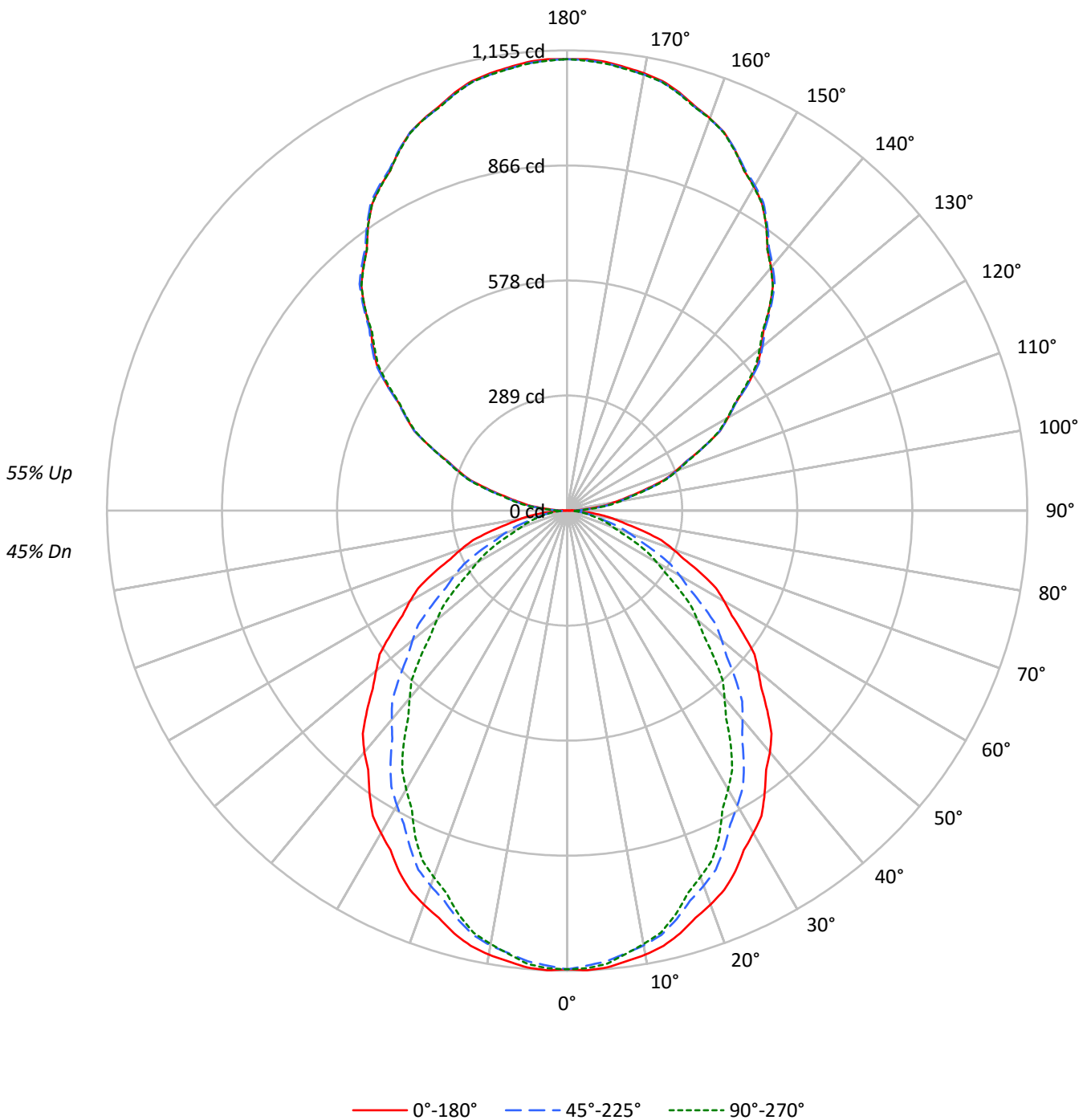
Input Watts (W): 52
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	106	106	106	106	97	97	97	97	81	81	81	66	66	66	52	52	52
1	97	93	89	86	89	85	82	79	71	69	67	58	57	55	46	45	44
2	89	81	75	70	81	75	70	65	63	59	56	51	49	47	41	39	38
3	81	72	65	59	74	66	60	55	56	51	47	46	42	40	37	34	32
4	74	64	56	50	68	59	52	47	49	44	40	41	37	34	33	30	28
5	68	57	49	43	62	53	46	40	44	39	35	37	33	30	30	27	25
6	63	51	43	37	57	47	40	35	40	35	31	33	29	26	27	24	22
7	58	46	38	33	53	43	36	31	36	31	27	30	26	23	25	22	20
8	54	42	34	29	49	39	32	27	33	28	24	28	24	21	23	20	18
9	50	38	31	26	46	36	29	24	30	25	22	26	22	19	21	18	16
10	47	35	28	23	43	33	26	22	28	23	19	24	20	17	20	17	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12392	12392	12392
5°	12440	12268	12338
10°	12369	12114	12073
15°	12237	11830	11705
20°	12054	11475	11208
25°	11866	11077	10723
30°	11616	10618	10038
35°	11361	10159	9410
40°	11126	9617	8633
45°	10816	9082	7931
50°	10474	8473	7145
55°	10128	7781	6412
60°	9810	7035	5608
65°	9393	6230	4804
70°	8875	5231	3877
75°	8114	4117	3647
80°	7234	3651	3353
85°	6113	3223	3001



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.1	1.9
10°-20°	300.8	5.2
20°-30°	433.1	7.5
30°-40°	487.9	8.5
40°-50°	466.7	8.1
50°-60°	382.2	6.7
60°-70°	257.9	4.5
70°-80°	129.7	2.3
80°-90°	37.7	0.7
90°-100°	73.8	1.3
100°-110°	220.9	3.8
110°-120°	375.8	6.5
120°-130°	494.3	8.6
130°-140°	555.6	9.7
140°-150°	546.1	9.5
150°-160°	459.7	8.0
160°-170°	306.0	5.3
170°-180°	107.2	1.9
0°-30°	842.0	14.7
0°-40°	1329.9	23.2
0°-60°	2178.8	37.9
0°-90°	2604.1	45.3
90°-120°	670.6	11.7
90°-150°	2266.5	39.5
90°-180°	3139.0	54.7
0°-180°	5743.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1151	1151	1151	1151	1151	
5°	1151	1146	1135	1143	1142	109
15°	1098	1087	1062	1057	1050	309
25°	999	975	933	914	903	459
35°	865	830	773	734	716	541
45°	710	667	597	545	521	548
55°	540	492	415	362	342	484
65°	369	316	245	201	189	365
75°	195	150	99	90	88	208
85°	50	30	26	24	24	56
90°	1	10	21	25	27	6
95°	52	59	66	69	70	59
105°	200	202	210	210	212	214
115°	378	381	379	380	379	374
125°	554	556	555	551	547	494
135°	718	723	723	719	718	553
145°	871	873	876	875	871	544
155°	998	998	999	1002	996	459
165°	1087	1084	1084	1089	1083	306
175°	1130	1127	1127	1132	1126	107
180°	1133	1133	1133	1133	1133	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1151.3	1151.3	1151.3	1151.3	1151.3	1151.3	1151.3	1151.3	1151.3	1151.3	1151.3
2.5°	1154.9	1154.3	1153.6	1153.0	1152.4	1151.0	1149.0	1147.0	1145.0	1143.0	1144.9
5°	1151.3	1150.2	1149.1	1148.2	1147.1	1145.3	1142.8	1140.3	1137.8	1135.4	1137.2
7.5°	1140.6	1139.5	1138.4	1137.2	1136.1	1133.9	1130.7	1127.5	1124.3	1121.0	1122.0
10°	1131.7	1130.2	1128.7	1127.3	1125.8	1123.2	1119.5	1115.8	1112.1	1108.3	1108.5
12.5°	1118.9	1117.3	1115.7	1114.1	1112.5	1109.4	1104.8	1100.3	1095.6	1091.1	1091.0
15°	1098.1	1095.7	1093.4	1091.2	1088.9	1084.9	1079.1	1073.3	1067.4	1061.6	1060.6
17.5°	1071.7	1069.1	1066.4	1063.7	1061.0	1056.1	1048.7	1041.3	1033.8	1026.5	1024.3
20°	1052.3	1048.9	1045.6	1042.3	1039.0	1033.4	1025.5	1017.6	1009.8	1001.8	999.2
22.5°	1030.6	1026.8	1023.0	1019.1	1015.3	1009.2	1000.9	992.5	984.1	975.7	972.3
25°	999.1	993.9	988.6	983.5	978.3	970.9	961.4	951.8	942.3	932.7	928.4
27.5°	960.7	955.0	949.3	943.6	937.9	929.7	919.1	908.5	897.8	887.2	881.1
30°	934.6	928.4	922.2	916.0	909.7	900.8	889.2	877.5	865.9	854.3	847.3
32.5°	908.5	901.4	894.4	887.3	880.3	870.6	858.3	846.1	833.7	821.4	813.8
35°	864.6	857.1	849.6	842.2	834.7	824.6	811.7	798.8	786.0	773.1	764.2
37.5°	820.2	811.8	803.5	795.2	786.9	776.0	762.2	748.5	734.8	721.0	710.9
40°	791.8	782.7	773.5	764.4	755.3	743.3	728.6	713.9	699.1	684.4	673.6
42.5°	759.6	750.6	741.4	732.3	723.2	711.0	695.7	680.5	665.3	650.1	638.3
45°	710.5	701.2	691.9	682.5	673.2	660.6	644.5	628.6	612.6	596.6	584.8
47.5°	661.5	651.2	641.0	630.7	620.5	607.3	591.4	575.3	559.4	543.4	530.6
50°	625.5	615.8	606.1	596.3	586.6	573.3	556.5	539.7	522.9	506.0	493.2
52.5°	593.4	582.9	572.3	561.7	551.2	537.5	520.8	504.3	487.6	470.9	457.6
55°	539.7	529.5	519.3	509.2	499.0	485.1	467.4	449.9	432.2	414.6	402.5
57.5°	490.0	478.9	467.9	456.7	445.7	431.3	413.6	395.8	378.1	360.4	349.0
60°	455.7	444.3	432.8	421.4	410.0	395.7	378.4	361.2	344.0	326.8	315.6
62.5°	421.2	409.8	398.4	387.0	375.7	361.3	344.1	326.9	309.7	292.4	281.9
65°	368.8	357.4	346.0	334.6	323.2	309.3	293.2	277.0	260.8	244.6	234.4
67.5°	316.4	304.8	293.3	281.7	270.2	256.6	241.1	225.6	210.1	194.6	187.0
70°	282.0	270.8	259.6	248.3	237.2	224.3	209.7	195.3	180.7	166.2	158.9
72.5°	247.6	236.6	225.5	214.5	203.5	191.4	178.2	165.0	151.8	138.6	132.6
75°	195.1	185.2	175.2	165.2	155.3	144.6	133.2	121.8	110.4	99.0	96.9
77.5°	147.3	138.3	129.3	120.3	111.3	103.2	95.8	88.5	81.1	73.7	72.7
80°	116.7	108.2	99.7	91.2	82.7	76.2	71.9	67.5	63.2	58.9	58.2
82.5°	87.6	80.3	72.9	65.5	58.2	53.5	51.5	49.4	47.4	45.4	44.8
85°	49.5	44.9	40.4	35.8	31.2	28.6	28.0	27.4	26.8	26.1	25.8
87.5°	18.1	16.7	15.2	13.8	12.4	11.9	12.5	12.9	13.5	14.0	14.0
90°	0.9	2.9	4.8	6.9	8.8	11.1	13.6	16.2	18.8	21.4	22.1
92.5°	21.6	22.9	24.3	25.6	26.9	28.4	29.8	31.2	32.7	34.2	34.8
95°	52.5	53.9	55.3	56.7	58.1	59.6	61.1	62.7	64.3	65.9	66.7
97.5°	93.3	94.3	95.3	96.4	97.4	98.4	99.6	100.8	101.9	103.1	104.0
100°	121.1	122.3	123.4	124.6	125.8	126.9	127.9	128.9	129.8	130.8	131.4
102.5°	153.1	153.8	154.5	155.2	156.0	156.9	158.3	159.5	160.9	162.2	162.7
105°	200.3	200.6	201.1	201.4	201.9	203.0	204.7	206.5	208.3	210.1	210.1
107.5°	255.1	255.4	255.6	255.8	256.1	256.5	257.3	258.0	258.7	259.4	260.0
110°	289.3	289.7	290.1	290.4	290.9	291.2	291.7	292.0	292.5	292.8	293.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	324.9	325.1	325.4	325.6	325.8	326.0	326.1	326.2	326.3	326.3	327.3
115°	378.3	378.9	379.5	380.0	380.7	380.8	380.4	380.0	379.6	379.2	379.4
117.5°	432.0	432.5	432.8	433.3	433.6	433.5	433.1	432.6	432.0	431.5	431.5
120°	465.6	466.7	467.9	469.1	470.3	470.4	469.4	468.4	467.4	466.5	466.2
122.5°	500.4	501.3	502.1	503.0	503.9	504.1	503.5	503.0	502.6	502.0	501.5
125°	553.7	554.3	554.8	555.4	556.0	556.2	555.7	555.4	554.9	554.6	553.8
127.5°	602.8	604.0	605.3	606.5	607.9	608.2	607.8	607.4	607.0	606.5	605.4
130°	635.5	637.1	638.7	640.2	641.9	642.4	641.8	641.1	640.6	640.0	639.2
132.5°	668.3	669.9	671.5	673.1	674.7	675.2	674.8	674.3	673.9	673.4	672.5
135°	718.4	719.5	720.7	721.8	723.1	723.5	723.4	723.2	723.0	722.7	722.0
137.5°	764.6	765.6	766.6	767.6	768.6	769.3	769.8	770.3	770.9	771.3	770.5
140°	796.7	797.6	798.6	799.6	800.6	801.2	801.4	801.6	801.8	802.0	801.8
142.5°	825.8	826.8	827.9	828.8	829.8	830.5	830.8	831.2	831.5	831.9	831.7
145°	871.4	871.8	872.2	872.6	873.0	873.5	874.1	874.7	875.3	875.8	875.7
147.5°	911.3	912.0	912.8	913.5	914.2	914.8	915.3	915.9	916.4	917.0	917.0
150°	939.1	939.5	939.9	940.2	940.7	941.0	941.5	941.8	942.3	942.6	942.6
152.5°	961.9	962.4	963.0	963.5	964.0	964.5	964.7	964.9	965.2	965.5	965.7
155°	997.8	997.8	997.8	997.8	997.8	997.9	998.1	998.3	998.5	998.7	999.5
157.5°	1028.4	1028.2	1028.0	1027.7	1027.5	1027.4	1027.6	1027.8	1028.0	1028.1	1028.9
160°	1047.7	1047.2	1046.9	1046.5	1046.1	1045.9	1045.9	1045.9	1045.9	1045.9	1046.9
162.5°	1064.8	1064.2	1063.6	1063.1	1062.6	1062.4	1062.5	1062.7	1062.8	1063.0	1064.0
165°	1086.8	1086.2	1085.7	1085.0	1084.5	1084.1	1084.1	1084.1	1084.1	1084.1	1085.3
167.5°	1104.5	1103.7	1102.9	1102.1	1101.3	1101.0	1101.2	1101.3	1101.4	1101.6	1102.9
170°	1114.5	1113.7	1112.9	1112.1	1111.3	1110.9	1110.9	1110.9	1110.9	1110.9	1112.2
172.5°	1122.2	1121.5	1120.7	1119.9	1119.1	1118.7	1118.7	1118.7	1118.7	1118.7	1119.9
175°	1130.4	1129.6	1128.8	1128.1	1127.3	1126.9	1126.9	1126.9	1126.9	1126.9	1128.1
177.5°	1133.8	1133.2	1132.6	1131.9	1131.3	1131.0	1131.0	1131.0	1131.0	1131.0	1131.9
180°	1133.1	1133.1	1133.1	1133.1	1133.1	1133.1	1133.1	1133.1	1133.1	1133.1	1133.1



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1151.3	1151.3	1151.3	1151.3	1151.3	1151.3	1151.3	1151.3
2.5°	1146.7	1148.5	1150.3	1151.1	1150.8	1150.4	1150.0	1149.8
5°	1139.1	1140.9	1142.8	1143.5	1143.2	1142.7	1142.3	1141.9
7.5°	1123.1	1124.1	1125.2	1125.3	1124.6	1123.9	1123.2	1122.5
10°	1108.8	1108.9	1109.1	1108.8	1107.7	1106.6	1105.6	1104.6
12.5°	1090.8	1090.7	1090.7	1089.9	1088.8	1087.5	1086.4	1085.1
15°	1059.5	1058.5	1057.5	1056.2	1054.8	1053.3	1051.9	1050.4
17.5°	1022.1	1019.9	1017.7	1015.6	1013.3	1011.2	1009.1	1006.9
20°	996.5	993.7	991.0	988.5	986.0	983.5	981.0	978.5
22.5°	969.0	965.6	962.2	959.4	957.1	954.8	952.4	950.1
25°	924.1	919.7	915.3	912.0	909.7	907.4	905.2	902.9
27.5°	875.0	869.1	863.0	858.2	854.7	851.2	847.7	844.3
30°	840.3	833.1	826.1	820.9	817.6	814.3	810.9	807.6
32.5°	806.0	798.3	790.6	785.0	781.5	778.0	774.5	771.1
35°	755.3	746.4	737.4	731.1	727.4	723.6	719.9	716.1
37.5°	700.7	690.6	680.5	673.2	668.5	663.9	659.3	654.7
40°	662.8	652.0	641.2	633.5	628.7	623.9	619.1	614.4
42.5°	626.4	614.7	602.9	594.9	590.6	586.3	582.0	577.7
45°	573.0	561.2	549.3	540.9	535.9	530.9	526.0	521.0
47.5°	517.6	504.8	492.0	483.3	478.8	474.4	470.0	465.6
50°	480.4	467.4	454.6	445.8	441.0	436.2	431.5	426.7
52.5°	444.3	430.9	417.5	408.7	404.4	400.1	395.8	391.6
55°	390.5	378.4	366.4	358.3	354.2	350.0	345.9	341.7
57.5°	337.7	326.3	315.0	307.5	304.0	300.4	296.9	293.4
60°	304.3	293.2	282.0	274.6	271.1	267.5	264.0	260.5
62.5°	271.3	260.8	250.3	243.2	239.4	235.8	232.1	228.4
65°	224.3	214.1	203.9	197.7	195.5	193.1	190.9	188.6
67.5°	179.4	171.8	164.2	159.2	156.8	154.3	151.9	149.4
70°	151.7	144.4	137.1	132.4	130.1	127.8	125.6	123.2
72.5°	126.7	120.7	114.9	111.4	110.4	109.5	108.5	107.5
75°	94.8	92.7	90.7	89.4	89.0	88.6	88.2	87.7
77.5°	71.5	70.4	69.3	68.5	68.1	67.7	67.2	66.9
80°	57.6	57.0	56.4	55.8	55.4	55.0	54.6	54.1
82.5°	44.1	43.5	42.9	42.5	42.4	42.4	42.3	42.2
85°	25.3	24.9	24.5	24.3	24.3	24.3	24.3	24.3
87.5°	14.0	14.0	13.9	13.9	13.8	13.7	13.6	13.6
90°	22.9	23.7	24.5	25.1	25.5	25.9	26.3	26.7
92.5°	35.5	36.1	36.7	36.9	36.6	36.5	36.2	35.9
95°	67.4	68.2	69.0	69.5	69.5	69.5	69.5	69.5
97.5°	104.9	105.8	106.7	107.1	107.1	107.0	106.9	106.8
100°	132.1	132.6	133.2	133.8	134.1	134.5	134.9	135.3
102.5°	163.4	164.0	164.5	164.8	164.7	164.6	164.6	164.5
105°	210.1	210.1	210.1	210.3	210.6	211.1	211.4	211.9
107.5°	260.6	261.3	261.9	262.1	261.9	261.6	261.4	261.2
110°	294.4	295.2	296.0	296.2	295.8	295.4	295.1	294.6



TEST NUMBER: P332322-940

CATALOG NUMBER: S123RDIP-S775D1025U940-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	328.2	329.1	330.1	330.6	330.5	330.4	330.3	330.2
115°	379.6	379.8	380.0	380.0	379.8	379.6	379.4	379.2
117.5°	431.4	431.4	431.4	431.1	430.5	430.0	429.4	428.8
120°	466.0	465.8	465.7	465.3	464.9	464.6	464.1	463.8
122.5°	501.0	500.5	500.0	499.4	498.9	498.3	497.8	497.2
125°	552.9	552.1	551.3	550.5	549.8	549.0	548.2	547.4
127.5°	604.3	603.2	602.1	601.1	600.2	599.2	598.3	597.4
130°	638.4	637.6	636.9	635.7	634.4	632.9	631.6	630.2
132.5°	671.5	670.7	669.7	668.7	667.6	666.6	665.5	664.4
135°	721.2	720.4	719.6	719.0	718.6	718.2	717.8	717.5
137.5°	769.7	768.9	768.0	767.2	766.5	765.7	765.0	764.3
140°	801.6	801.4	801.2	800.4	799.1	797.6	796.3	794.9
142.5°	831.5	831.3	831.1	830.5	829.4	828.3	827.2	826.2
145°	875.5	875.3	875.0	874.6	873.8	873.0	872.2	871.4
147.5°	917.0	917.0	917.0	916.4	915.3	914.0	912.8	911.7
150°	942.6	942.6	942.6	942.0	940.8	939.7	938.4	937.3
152.5°	966.1	966.3	966.7	966.3	965.3	964.3	963.2	962.2
155°	1000.3	1001.1	1001.8	1001.6	1000.2	998.8	997.4	996.0
157.5°	1029.7	1030.6	1031.4	1031.3	1030.2	1029.0	1028.0	1026.8
160°	1047.8	1048.8	1049.8	1049.9	1049.2	1048.4	1047.6	1046.8
162.5°	1065.0	1066.0	1066.9	1066.8	1065.5	1064.3	1063.0	1061.8
165°	1086.5	1087.7	1088.9	1088.8	1087.4	1086.0	1084.7	1083.3
167.5°	1104.0	1105.3	1106.5	1106.5	1105.3	1104.0	1102.9	1101.6
170°	1113.7	1115.0	1116.4	1116.4	1115.0	1113.7	1112.2	1110.9
172.5°	1121.1	1122.4	1123.6	1123.6	1122.1	1120.8	1119.4	1117.9
175°	1129.3	1130.4	1131.7	1131.5	1130.2	1128.7	1127.4	1126.0
177.5°	1132.9	1133.8	1134.8	1134.7	1133.6	1132.5	1131.4	1130.2
180°	1133.1	1133.1	1133.1	1133.1	1133.1	1133.1	1133.1	1133.1

(END OF REPORT)