

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: P332057-927

Luminaire Tested: **S123DIP-S1165D585U927-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332057-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-5,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DIP-S1165D585U927-4F0-1E-UDD-D
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1165 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 585 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5697.7 lumens
Efficiency: N/A
Efficacy: 103.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.08')
CIE Type: Semi-Direct

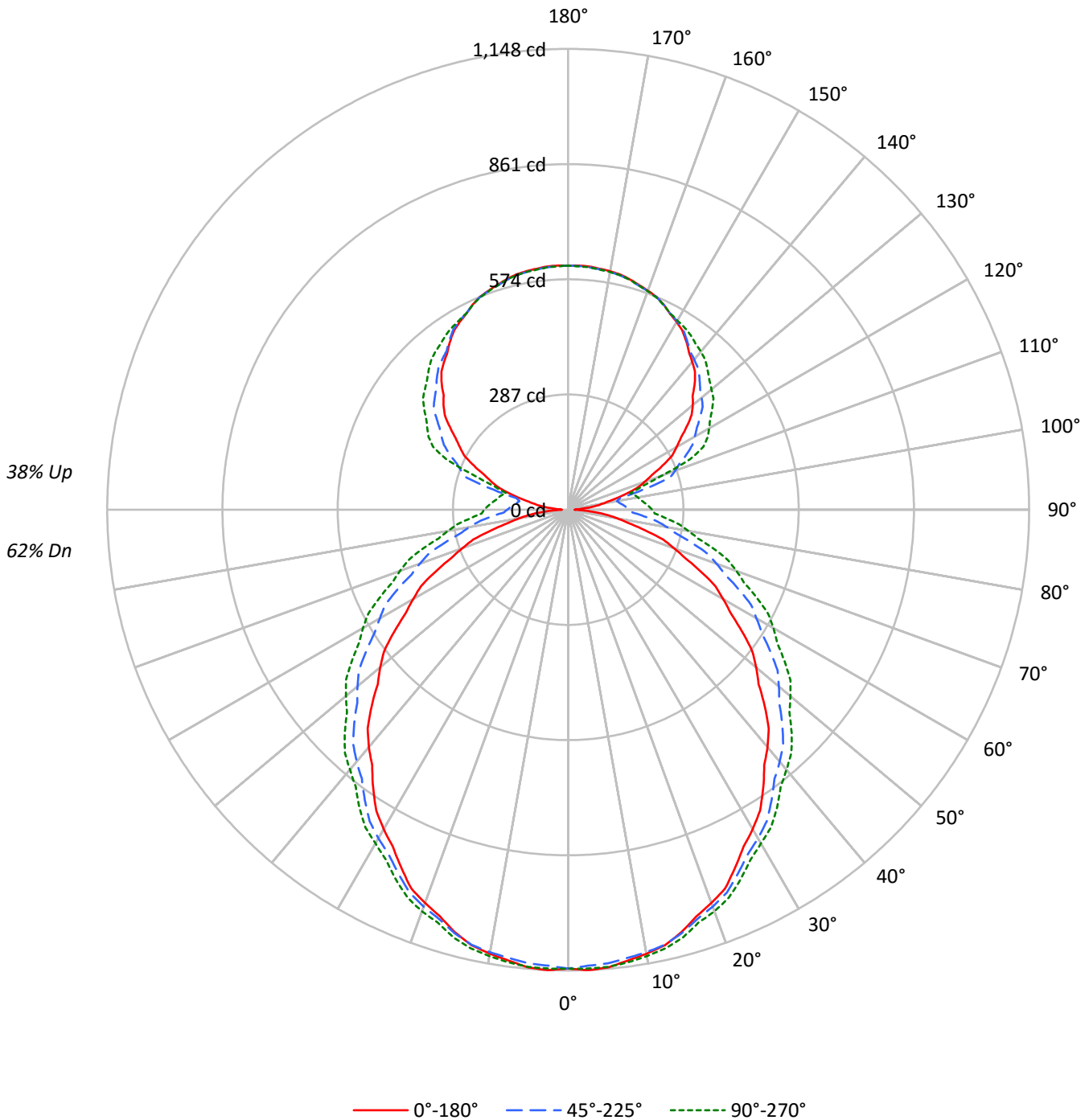
Input Watts (W): 55.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P332057-927

CATALOG NUMBER: S123DIP-S1165D585U927-4F0-1E-UDD-D

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	90	90	90	78	78	78	67	67	67	62
1	99	94	90	86	92	88	84	81	77	74	71	67	64	62	57	55	54	49
2	90	82	75	69	84	76	70	65	67	62	58	58	54	51	50	47	44	40
3	82	71	63	57	76	67	60	54	58	53	48	51	46	43	43	40	37	34
4	74	63	54	48	69	59	51	45	52	46	41	45	40	36	39	35	32	28
5	68	56	47	41	64	53	45	39	46	40	35	40	35	31	35	31	28	24
6	63	50	41	35	59	47	39	34	42	35	30	36	31	27	31	27	24	21
7	58	45	37	31	54	43	35	30	38	31	27	33	28	24	29	24	21	19
8	54	41	33	27	50	39	31	26	34	28	24	30	25	21	26	22	19	17
9	50	37	30	24	47	35	28	23	31	25	21	28	23	19	24	20	17	15
10	47	34	27	22	44	33	26	21	29	23	19	26	21	17	22	18	16	14

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12304	12304	12304
5°	12343	11994	12001
10°	12232	11718	11659
15°	12075	11405	11287
20°	11849	11047	10876
25°	11571	10634	10444
30°	11287	10264	10006
35°	10967	9871	9658
40°	10663	9514	9284
45°	10325	9172	8985
50°	9990	8832	8655
55°	9622	8486	8359
60°	9263	8134	8056
65°	8896	7758	7694
70°	8341	7336	7323
75°	7640	6853	6946
80°	6835	6380	6515
85°	6085	6053	6268



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.4	1.9
10°-20°	308.9	5.4
20°-30°	462.0	8.1
30°-40°	551.8	9.7
40°-50°	577.3	10.1
50°-60°	541.7	9.5
60°-70°	452.5	7.9
70°-80°	323.7	5.7
80°-90°	194.8	3.4
90°-100°	143.2	2.5
100°-110°	194.4	3.4
110°-120°	312.6	5.5
120°-130°	356.3	6.3
130°-140°	359.6	6.3
140°-150°	325.3	5.7
150°-160°	259.8	4.6
160°-170°	167.7	2.9
170°-180°	57.8	1.0
0°-30°	879.3	15.4
0°-40°	1431.1	25.1
0°-60°	2550.1	44.8
0°-90°	3521.0	61.8
90°-120°	650.2	11.4
90°-150°	1691.5	29.7
90°-180°	2177.0	38.2
0°-180°	5697.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1143	1143	1143	1143	1143	
5°	1144	1142	1134	1144	1143	108
15°	1090	1093	1092	1104	1103	307
25°	984	996	1000	1015	1016	453
35°	847	866	883	901	906	529
45°	692	722	753	776	787	534
55°	528	569	614	646	658	473
65°	365	414	468	504	518	360
75°	198	257	319	358	375	212
85°	61	124	189	230	244	64
90°	17	82	152	194	209	12
95°	41	73	137	177	192	45
105°	145	178	192	150	159	153
115°	259	278	325	358	372	256
125°	360	365	401	427	438	322
135°	446	448	463	485	491	343
145°	513	515	516	526	531	321
155°	563	563	563	565	562	259
165°	594	593	592	596	593	168
175°	608	606	606	609	606	58
180°	608	608	608	608	608	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1143.1	1143.1	1143.1	1143.1	1143.1	1143.1	1143.1	1143.1	1143.1	1143.1	1143.1
2.5°	1148.1	1147.5	1146.8	1146.1	1145.4	1144.2	1142.5	1140.7	1138.9	1137.2	1138.9
5°	1144.4	1143.8	1143.3	1142.7	1142.2	1141.1	1139.4	1137.7	1136.1	1134.4	1136.6
7.5°	1133.1	1133.3	1133.4	1133.5	1133.6	1132.9	1131.2	1129.7	1128.1	1126.4	1129.2
10°	1123.2	1123.8	1124.3	1124.9	1125.5	1125.0	1123.6	1122.2	1120.9	1119.4	1122.2
12.5°	1111.3	1112.0	1112.8	1113.6	1114.4	1114.3	1113.3	1112.4	1111.4	1110.5	1113.0
15°	1089.6	1090.4	1091.2	1092.1	1092.9	1093.2	1092.9	1092.7	1092.3	1092.1	1094.9
17.5°	1062.2	1063.8	1065.5	1067.1	1068.8	1069.6	1069.5	1069.4	1069.3	1069.1	1071.7
20°	1042.3	1043.9	1045.6	1047.3	1048.9	1050.0	1050.6	1051.1	1051.7	1052.3	1054.7
22.5°	1021.4	1023.0	1024.7	1026.4	1028.0	1029.2	1030.0	1030.8	1031.5	1032.3	1035.5
25°	983.7	986.5	989.3	992.0	994.8	996.6	997.4	998.2	999.1	999.9	1003.5
27.5°	945.9	949.0	952.2	955.4	958.5	961.0	962.7	964.5	966.3	968.0	971.1
30°	919.0	922.6	926.1	929.8	933.3	936.3	938.5	940.7	942.9	945.2	948.5
32.5°	889.1	893.1	897.1	901.2	905.2	908.7	911.6	914.5	917.3	920.2	923.8
35°	846.8	851.2	855.6	860.1	864.5	868.5	872.1	875.7	879.2	882.9	887.0
37.5°	801.9	806.9	811.9	816.9	821.9	826.6	831.0	835.4	839.9	844.3	849.0
40°	772.1	777.1	782.0	787.0	791.9	797.3	802.8	808.3	813.8	819.4	824.1
42.5°	739.2	745.3	751.4	757.4	763.5	769.4	775.2	780.9	786.7	792.5	797.6
45°	692.4	699.0	705.6	712.3	718.9	725.7	732.6	739.5	746.5	753.4	758.6
47.5°	643.3	650.8	658.3	665.9	673.4	681.1	689.0	697.0	704.9	712.8	718.7
50°	611.4	619.2	626.9	634.6	642.4	650.5	659.2	667.7	676.3	684.8	691.3
52.5°	577.6	585.7	593.9	602.1	610.3	619.2	628.6	638.0	647.5	657.0	663.6
55°	528.0	537.1	546.2	555.4	564.5	574.0	584.0	594.0	604.0	613.9	621.4
57.5°	479.7	489.2	498.7	508.2	517.8	528.0	538.8	549.8	560.6	571.6	579.1
60°	445.8	455.7	465.7	475.7	485.6	496.3	507.6	519.0	530.4	541.7	549.5
62.5°	413.9	424.1	434.3	444.5	454.6	465.7	477.8	489.7	501.8	513.8	521.5
65°	364.9	375.7	386.4	397.2	408.1	419.5	431.7	443.9	456.1	468.2	476.5
67.5°	315.1	326.5	337.9	349.4	360.8	372.8	385.2	397.6	410.0	422.4	431.4
70°	280.2	292.1	304.0	315.8	327.8	340.4	353.6	366.9	380.2	393.5	402.3
72.5°	248.3	260.2	272.1	284.0	295.9	308.7	322.4	336.1	349.9	363.6	372.7
75°	198.0	211.0	224.0	237.0	250.0	263.4	277.3	291.1	304.9	318.8	327.9
77.5°	154.2	167.3	180.4	193.5	206.6	220.1	234.1	248.0	262.0	275.9	285.6
80°	123.3	136.8	150.4	164.0	177.5	191.5	205.9	220.3	234.6	249.1	258.5
82.5°	96.4	110.2	124.0	137.8	151.5	165.7	180.3	195.0	209.5	224.1	233.5
85°	61.0	74.9	88.7	102.5	116.4	130.6	145.3	159.9	174.6	189.3	198.7
87.5°	33.2	47.2	61.2	75.2	89.1	103.3	117.7	132.1	146.5	160.8	170.3
90°	16.6	31.2	45.8	60.4	74.9	89.9	105.3	120.7	136.2	151.5	161.4
92.5°	23.6	35.6	47.5	59.4	71.4	84.8	99.7	114.5	129.4	144.3	154.2
95°	41.3	47.9	54.6	61.3	68.0	78.7	93.3	108.0	122.6	137.3	146.6
97.5°	67.6	75.5	83.4	91.3	99.2	106.0	111.7	117.4	123.1	128.9	137.9
100°	87.5	98.5	109.3	120.2	131.0	135.0	132.1	129.1	126.2	123.3	132.1
102.5°	110.4	119.9	129.3	138.7	148.1	150.5	145.9	141.3	136.7	132.1	137.4
105°	144.6	152.3	160.1	167.9	175.6	180.9	183.8	186.6	189.5	192.3	182.3
107.5°	179.4	186.0	192.5	199.0	205.6	215.2	227.9	240.6	253.3	266.0	260.4
110°	202.6	208.4	214.2	220.0	225.8	234.8	246.9	259.1	271.3	283.4	287.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	225.8	230.6	235.4	240.3	245.1	253.3	265.1	276.8	288.5	300.2	307.3
115°	258.8	262.7	266.6	270.5	274.5	281.9	292.7	303.6	314.5	325.3	333.0
117.5°	291.7	294.5	297.3	300.1	302.9	309.2	319.0	328.8	338.7	348.4	355.8
120°	311.3	313.6	315.9	318.2	320.4	326.3	335.7	345.2	354.7	364.1	371.2
122.5°	332.3	333.7	335.2	336.7	338.1	343.4	352.4	361.6	370.6	379.7	386.4
125°	359.8	360.6	361.4	362.2	363.0	367.6	376.0	384.4	392.8	401.3	407.3
127.5°	387.6	388.2	388.6	389.2	389.7	393.6	400.7	407.8	414.9	422.0	427.9
130°	405.0	405.5	406.0	406.5	407.1	410.3	416.2	422.2	428.1	434.0	439.7
132.5°	420.6	421.4	422.1	422.9	423.6	426.4	431.1	435.9	440.6	445.3	450.8
135°	445.8	446.1	446.4	446.7	447.0	448.9	452.3	455.8	459.2	462.7	468.0
137.5°	467.1	467.7	468.3	468.8	469.4	470.6	472.5	474.4	476.4	478.3	483.2
140°	480.6	481.3	481.8	482.4	483.1	483.9	485.1	486.2	487.3	488.5	493.0
142.5°	494.0	494.4	494.8	495.1	495.5	496.0	496.5	496.9	497.3	497.8	501.8
145°	512.7	513.2	513.6	514.0	514.4	514.8	514.9	515.2	515.3	515.6	517.9
147.5°	529.1	529.6	530.0	530.4	530.9	531.2	531.5	531.6	531.9	532.1	532.9
150°	540.0	540.3	540.5	540.8	541.1	541.4	541.6	541.8	542.0	542.2	542.4
152.5°	549.7	549.9	549.9	550.1	550.2	550.4	550.5	550.6	550.7	550.9	551.2
155°	563.4	563.2	563.0	562.8	562.6	562.6	562.7	562.8	562.8	563.0	563.5
157.5°	574.1	574.1	574.0	574.0	574.0	573.9	573.9	573.8	573.6	573.5	574.2
160°	580.6	580.5	580.4	580.3	580.2	580.1	580.0	579.9	579.8	579.7	580.3
162.5°	586.8	586.5	586.2	586.0	585.7	585.5	585.4	585.3	585.2	585.1	585.8
165°	594.1	593.8	593.6	593.3	592.9	592.7	592.6	592.6	592.5	592.3	593.2
167.5°	599.9	599.5	599.1	598.7	598.3	598.1	598.1	598.1	598.1	598.1	599.0
170°	603.2	602.8	602.4	602.0	601.6	601.3	601.3	601.3	601.3	601.3	602.2
172.5°	605.4	604.9	604.4	603.9	603.4	603.2	603.3	603.4	603.5	603.6	604.4
175°	608.2	607.7	607.1	606.7	606.2	605.9	606.0	606.2	606.3	606.3	607.0
177.5°	608.9	608.5	608.1	607.7	607.3	607.1	607.2	607.3	607.4	607.4	608.1
180°	608.2	608.2	608.2	608.2	608.2	608.2	608.2	608.2	608.2	608.2	608.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1143.1	1143.1	1143.1	1143.1	1143.1	1143.1	1143.1	1143.1
2.5°	1140.7	1142.5	1144.2	1145.0	1144.8	1144.5	1144.3	1144.1
5°	1138.8	1141.1	1143.3	1144.2	1144.0	1143.7	1143.4	1143.1
7.5°	1131.9	1134.7	1137.5	1138.8	1138.4	1138.0	1137.7	1137.4
10°	1125.0	1127.8	1130.5	1131.6	1131.1	1130.5	1130.0	1129.4
12.5°	1115.6	1118.2	1120.7	1121.7	1121.1	1120.5	1120.0	1119.4
15°	1097.6	1100.3	1103.1	1104.4	1104.1	1103.8	1103.6	1103.3
17.5°	1074.1	1076.7	1079.1	1080.1	1079.8	1079.4	1079.0	1078.6
20°	1057.2	1059.7	1062.2	1063.6	1063.8	1064.1	1064.4	1064.7
22.5°	1038.6	1041.8	1044.9	1046.4	1046.2	1046.1	1045.9	1045.8
25°	1007.1	1010.7	1014.3	1016.1	1016.1	1016.1	1016.1	1016.1
27.5°	974.2	977.3	980.4	982.1	982.3	982.5	982.8	983.0
30°	951.8	955.1	958.4	960.0	960.0	960.0	960.0	960.0
32.5°	927.3	930.9	934.4	936.5	937.2	937.9	938.5	939.1
35°	891.2	895.3	899.4	902.1	903.2	904.4	905.5	906.5
37.5°	853.7	858.4	863.1	865.9	866.8	867.7	868.5	869.4
40°	828.8	833.5	838.2	841.1	842.2	843.3	844.4	845.5
42.5°	802.8	807.9	813.1	816.4	817.9	819.5	821.0	822.6
45°	763.9	769.1	774.4	778.2	780.4	782.6	784.8	787.0
47.5°	724.6	730.6	736.5	740.3	742.0	743.7	745.4	747.1
50°	697.6	704.0	710.3	714.5	716.4	718.4	720.3	722.2
52.5°	670.2	676.8	683.3	687.9	690.2	692.6	695.0	697.4
55°	628.8	636.3	643.8	648.6	650.9	653.1	655.3	657.5
57.5°	586.6	594.1	601.7	606.7	609.3	612.0	614.6	617.1
60°	557.1	564.9	572.7	578.1	581.1	584.2	587.2	590.3
62.5°	529.3	537.0	544.8	550.1	552.9	555.7	558.6	561.3
65°	484.8	493.1	501.5	506.9	509.7	512.5	515.2	518.0
67.5°	440.5	449.6	458.7	464.4	466.8	469.1	471.3	473.7
70°	411.2	420.1	428.9	434.7	437.5	440.3	443.0	445.8
72.5°	381.8	390.9	399.9	405.8	408.6	411.4	414.2	416.9
75°	337.1	346.2	355.3	361.6	364.9	368.2	371.5	374.8
77.5°	295.2	304.8	314.5	320.5	323.1	325.7	328.2	330.7
80°	267.8	277.3	286.7	292.8	295.6	298.3	301.1	303.8
82.5°	243.0	252.4	261.7	267.8	270.6	273.4	276.2	278.9
85°	208.1	217.5	226.9	233.0	235.8	238.5	241.3	244.1
87.5°	179.8	189.3	198.8	204.9	207.7	210.6	213.3	216.1
90°	171.2	181.0	190.8	197.2	200.2	203.1	206.1	209.1
92.5°	164.0	173.8	183.6	189.9	192.6	195.2	197.9	200.5
95°	155.8	165.1	174.4	180.5	183.2	186.0	188.7	191.5
97.5°	146.9	156.0	165.1	171.0	173.9	176.7	179.6	182.5
100°	140.9	149.7	158.6	164.4	167.3	170.2	173.0	175.9
102.5°	142.8	148.1	153.4	157.5	160.4	163.3	166.3	169.3
105°	172.3	162.2	152.3	148.6	151.3	154.0	156.7	159.3
107.5°	254.8	249.2	243.6	235.3	224.3	213.3	202.4	191.5
110°	291.2	295.1	299.0	294.9	282.7	270.6	258.4	246.3



TEST NUMBER: P332057-927

CATALOG NUMBER: S123DIP-S1165D585U927-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	314.3	321.4	328.4	331.6	331.1	330.4	329.8	329.2
115°	340.6	348.2	355.9	361.1	363.7	366.3	368.9	371.5
117.5°	363.2	370.6	378.0	382.8	385.1	387.3	389.5	391.7
120°	378.4	385.6	392.8	397.3	399.2	401.2	403.1	405.0
122.5°	393.1	399.8	406.5	410.8	412.9	414.9	416.9	418.9
125°	413.4	419.4	425.3	429.4	431.6	433.7	435.9	438.0
127.5°	433.6	439.4	445.2	449.0	450.7	452.3	454.0	455.7
130°	445.4	451.0	456.7	460.3	461.7	463.2	464.6	466.0
132.5°	456.2	461.6	467.1	470.6	472.2	473.8	475.4	477.0
135°	473.2	478.6	483.9	487.0	488.1	489.2	490.3	491.3
137.5°	488.1	492.9	497.7	500.7	501.9	503.1	504.3	505.5
140°	497.6	502.1	506.7	509.5	510.7	511.9	513.1	514.2
142.5°	505.9	509.9	514.0	516.5	517.6	518.7	519.8	520.9
145°	520.4	522.8	525.2	527.0	528.1	529.2	530.3	531.4
147.5°	533.8	534.6	535.5	536.2	536.8	537.3	537.8	538.4
150°	542.6	542.8	543.0	543.2	543.4	543.8	544.0	544.2
152.5°	551.6	551.9	552.3	552.3	552.0	551.6	551.3	550.9
155°	564.0	564.5	565.0	564.9	564.4	563.7	563.2	562.5
157.5°	574.7	575.4	576.0	575.8	575.0	574.3	573.5	572.7
160°	580.9	581.5	582.1	582.0	581.4	580.7	580.0	579.2
162.5°	586.5	587.2	587.9	587.9	587.2	586.6	586.0	585.4
165°	594.0	594.8	595.6	595.6	594.9	594.2	593.5	592.8
167.5°	599.8	600.6	601.3	601.3	600.6	599.8	599.0	598.1
170°	603.0	603.8	604.6	604.6	603.8	603.0	602.2	601.3
172.5°	605.1	605.9	606.7	606.7	605.9	605.0	604.0	603.2
175°	607.8	608.5	609.2	609.1	608.3	607.5	606.7	605.9
177.5°	608.7	609.3	610.0	609.9	609.1	608.3	607.5	606.7
180°	608.2	608.2	608.2	608.2	608.2	608.2	608.2	608.2

(END OF REPORT)