

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: P332057-930

Luminaire Tested: **S123DIP-S1165D585U930-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332057-930
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-S1165D585U930-4F0-1E-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

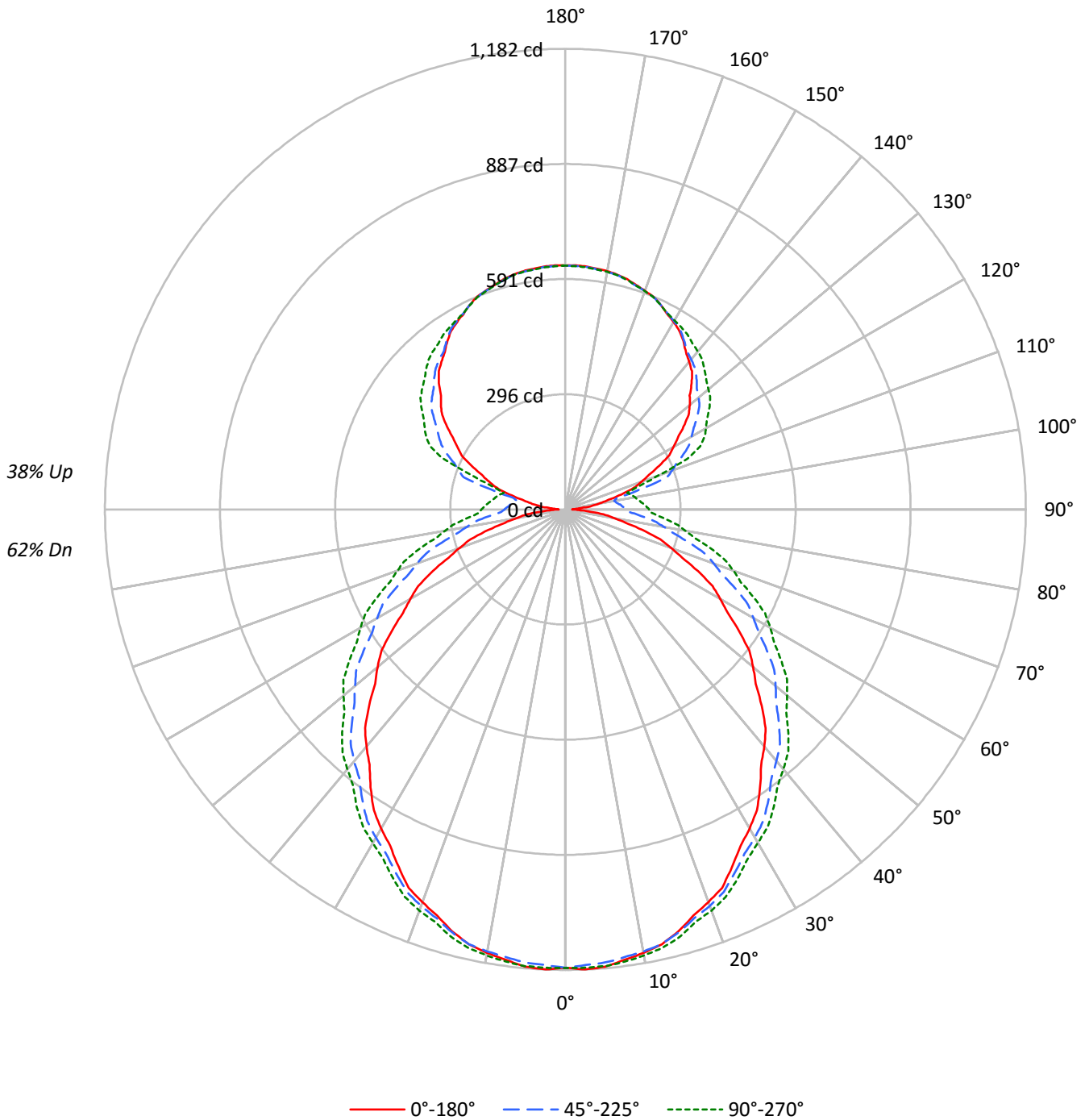
Lumens per Lamp: N/A
Luminaire Lumens: 5864.0 lumens
Efficiency: N/A
Efficacy: 106.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.08')
CIE Type: Semi-Direct

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





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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	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°	12664	12664	12664
5°	12703	12344	12352
10°	12589	12060	12000
15°	12427	11738	11616
20°	12195	11369	11194
25°	11908	10944	10750
30°	11616	10563	10299
35°	11287	10159	9939
40°	10973	9792	9555
45°	10626	9438	9247
50°	10281	9090	8908
55°	9903	8734	8603
60°	9533	8371	8291
65°	9155	7984	7918
70°	8585	7551	7537
75°	7860	7053	7148
80°	7035	6564	6706
85°	6264	6229	6450



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.5	1.9
10°-20°	317.9	5.4
20°-30°	475.5	8.1
30°-40°	567.9	9.7
40°-50°	594.1	10.1
50°-60°	557.5	9.5
60°-70°	465.7	7.9
70°-80°	333.2	5.7
80°-90°	200.4	3.4
90°-100°	147.4	2.5
100°-110°	200.1	3.4
110°-120°	321.7	5.5
120°-130°	366.7	6.3
130°-140°	370.1	6.3
140°-150°	334.8	5.7
150°-160°	267.4	4.6
160°-170°	172.6	2.9
170°-180°	59.5	1.0
0°-30°	905.0	15.4
0°-40°	1472.8	25.1
0°-60°	2624.5	44.8
0°-90°	3623.8	61.8
90°-120°	669.2	11.4
90°-150°	1740.8	29.7
90°-180°	2240.0	38.2
0°-180°	5864.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1176	1176	1176	1176	1176	
5°	1178	1175	1168	1177	1176	112
15°	1121	1125	1124	1136	1136	316
25°	1012	1025	1029	1045	1046	466
35°	872	892	909	927	933	545
45°	713	743	775	799	810	549
55°	543	586	632	665	677	486
65°	376	426	482	519	533	371
75°	204	264	328	369	386	218
85°	63	127	195	237	251	66
90°	17	85	156	200	215	13
95°	42	76	141	183	197	46
105°	149	183	198	155	164	157
115°	266	286	335	369	382	263
125°	370	376	413	440	451	331
135°	459	461	476	500	506	353
145°	528	530	531	541	547	330
155°	580	579	579	581	579	267
165°	612	610	610	613	610	173
175°	626	624	624	627	624	60
180°	626	626	626	626	626	



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CATALOG NUMBER: S123DIP-S1165D585U930-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1176.5	1176.5	1176.5	1176.5	1176.5	1176.5	1176.5	1176.5	1176.5	1176.5	1176.5
2.5°	1181.6	1181.0	1180.2	1179.6	1178.8	1177.6	1175.8	1173.9	1172.2	1170.4	1172.2
5°	1177.8	1177.2	1176.6	1176.1	1175.5	1174.4	1172.6	1170.9	1169.2	1167.5	1169.8
7.5°	1166.2	1166.4	1166.4	1166.6	1166.7	1166.0	1164.2	1162.6	1161.0	1159.3	1162.1
10°	1156.0	1156.6	1157.2	1157.7	1158.3	1157.8	1156.4	1155.0	1153.6	1152.1	1155.0
12.5°	1143.7	1144.4	1145.3	1146.1	1146.9	1146.8	1145.8	1144.8	1143.9	1142.9	1145.5
15°	1121.4	1122.3	1123.1	1124.0	1124.8	1125.1	1124.8	1124.5	1124.2	1124.0	1126.8
17.5°	1093.2	1094.9	1096.6	1098.3	1100.0	1100.8	1100.7	1100.6	1100.5	1100.3	1102.9
20°	1072.7	1074.4	1076.1	1077.8	1079.5	1080.7	1081.2	1081.8	1082.4	1083.0	1085.5
22.5°	1051.2	1052.9	1054.6	1056.3	1058.0	1059.2	1060.1	1060.9	1061.6	1062.4	1065.7
25°	1012.4	1015.3	1018.1	1021.0	1023.9	1025.6	1026.5	1027.4	1028.3	1029.1	1032.8
27.5°	973.5	976.7	980.0	983.3	986.4	989.0	990.8	992.6	994.5	996.3	999.5
30°	945.8	949.5	953.2	956.9	960.6	963.6	965.9	968.2	970.5	972.7	976.2
32.5°	915.0	919.2	923.3	927.5	931.6	935.2	938.2	941.2	944.1	947.1	950.7
35°	871.5	876.0	880.6	885.2	889.7	893.8	897.6	901.2	904.9	908.7	912.9
37.5°	825.3	830.5	835.6	840.7	845.9	850.7	855.2	859.8	864.4	868.9	873.8
40°	794.6	799.7	804.9	809.9	815.1	820.5	826.2	831.8	837.6	843.3	848.2
42.5°	760.8	767.0	773.3	779.5	785.8	791.9	797.9	803.7	809.7	815.6	820.9
45°	712.6	719.4	726.2	733.0	739.9	746.9	754.0	761.1	768.3	775.3	780.7
47.5°	662.0	669.8	677.5	685.3	693.1	701.0	709.1	717.3	725.5	733.6	739.6
50°	629.2	637.2	645.2	653.1	661.1	669.5	678.4	687.2	696.0	704.8	711.4
52.5°	594.4	602.8	611.2	619.7	628.1	637.2	646.9	656.6	666.4	676.1	683.0
55°	543.4	552.8	562.1	571.6	581.0	590.8	601.0	611.3	621.6	631.9	639.5
57.5°	493.7	503.4	513.2	523.0	532.9	543.4	554.6	565.8	577.0	588.2	596.0
60°	458.8	469.0	479.3	489.6	499.8	510.8	522.4	534.1	545.8	557.5	565.5
62.5°	426.0	436.5	446.9	457.5	467.9	479.3	491.7	504.0	516.4	528.8	536.7
65°	375.5	386.6	397.7	408.8	420.0	431.8	444.3	456.8	469.4	481.8	490.4
67.5°	324.2	336.1	347.8	359.6	371.4	383.7	396.4	409.2	421.9	434.7	444.0
70°	288.4	300.6	312.8	325.1	337.4	350.3	363.9	377.6	391.3	405.0	414.1
72.5°	255.5	267.8	280.1	292.3	304.5	317.7	331.8	345.9	360.1	374.2	383.6
75°	203.7	217.2	230.6	243.9	257.3	271.1	285.4	299.6	313.8	328.1	337.5
77.5°	158.7	172.2	185.6	199.2	212.6	226.6	240.9	255.3	269.6	284.0	293.9
80°	126.9	140.8	154.8	168.8	182.7	197.1	211.9	226.7	241.5	256.3	266.0
82.5°	99.2	113.4	127.6	141.8	155.9	170.6	185.6	200.6	215.6	230.6	240.4
85°	62.8	77.0	91.3	105.5	119.8	134.4	149.5	164.6	179.7	194.8	204.5
87.5°	34.2	48.6	62.9	77.4	91.7	106.3	121.2	135.9	150.7	165.5	175.3
90°	17.1	32.1	47.1	62.1	77.0	92.5	108.4	124.3	140.1	156.0	166.1
92.5°	24.3	36.6	48.9	61.1	73.5	87.3	102.6	117.9	133.2	148.5	158.7
95°	42.5	49.3	56.2	63.1	70.0	81.0	96.0	111.1	126.2	141.3	150.8
97.5°	69.5	77.7	85.9	93.9	102.1	109.1	115.0	120.8	126.7	132.6	141.9
100°	90.1	101.3	112.5	123.7	134.9	138.9	135.9	132.9	129.9	126.9	135.9
102.5°	113.7	123.4	133.1	142.8	152.4	154.9	150.2	145.4	140.6	135.9	141.4
105°	148.8	156.8	164.8	172.8	180.8	186.1	189.1	192.1	195.0	198.0	187.6
107.5°	184.7	191.4	198.1	204.8	211.6	221.4	234.6	247.6	260.7	273.8	268.0
110°	208.6	214.5	220.5	226.4	232.4	241.7	254.1	266.7	279.2	291.7	295.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	232.4	237.3	242.3	247.3	252.3	260.7	272.8	284.9	296.9	309.0	316.3
115°	266.4	270.4	274.4	278.4	282.5	290.1	301.3	312.5	323.7	334.8	342.7
117.5°	300.2	303.1	306.0	308.8	311.7	318.2	328.3	338.4	348.5	358.6	366.2
120°	320.4	322.8	325.1	327.5	329.8	335.8	345.5	355.3	365.0	374.7	382.0
122.5°	342.0	343.5	345.0	346.5	348.0	353.4	362.7	372.1	381.4	390.8	397.7
125°	370.3	371.1	371.9	372.8	373.6	378.3	387.0	395.7	404.3	413.0	419.2
127.5°	398.9	399.5	400.0	400.6	401.0	405.0	412.4	419.7	427.1	434.3	440.3
130°	416.8	417.4	417.8	418.4	419.0	422.2	428.4	434.5	440.6	446.7	452.5
132.5°	432.8	433.7	434.4	435.2	435.9	438.8	443.7	448.6	453.5	458.3	463.9
135°	458.8	459.1	459.4	459.7	460.1	462.0	465.5	469.1	472.6	476.2	481.7
137.5°	480.8	481.4	481.9	482.5	483.1	484.3	486.3	488.3	490.3	492.3	497.3
140°	494.6	495.3	495.9	496.5	497.2	498.1	499.2	500.3	501.5	502.7	507.4
142.5°	508.4	508.8	509.2	509.6	510.0	510.5	510.9	511.4	511.8	512.3	516.5
145°	527.7	528.2	528.6	529.0	529.5	529.8	529.9	530.2	530.4	530.6	533.0
147.5°	544.5	545.0	545.5	545.9	546.4	546.7	547.0	547.1	547.4	547.6	548.5
150°	555.7	556.0	556.3	556.6	556.9	557.2	557.4	557.6	557.8	558.0	558.2
152.5°	565.7	565.9	566.0	566.1	566.3	566.5	566.6	566.7	566.8	567.0	567.3
155°	579.8	579.7	579.4	579.3	579.0	579.0	579.1	579.2	579.3	579.4	579.9
157.5°	590.8	590.8	590.8	590.8	590.8	590.7	590.6	590.5	590.4	590.3	590.9
160°	597.5	597.5	597.4	597.2	597.1	597.0	596.9	596.8	596.7	596.6	597.2
162.5°	603.9	603.6	603.3	603.1	602.8	602.6	602.5	602.4	602.3	602.2	602.9
165°	611.5	611.1	610.9	610.6	610.3	610.0	609.9	609.8	609.8	609.6	610.5
167.5°	617.4	617.0	616.6	616.2	615.8	615.6	615.6	615.6	615.6	615.6	616.4
170°	620.8	620.4	620.0	619.5	619.1	618.9	618.9	618.9	618.9	618.9	619.8
172.5°	623.1	622.6	622.0	621.5	621.0	620.9	620.9	621.0	621.1	621.2	622.0
175°	625.9	625.4	624.8	624.4	623.9	623.6	623.7	623.9	623.9	624.0	624.8
177.5°	626.6	626.2	625.8	625.4	625.0	624.8	624.9	625.0	625.1	625.2	625.8
180°	625.9	625.9	625.9	625.9	625.9	625.9	625.9	625.9	625.9	625.9	625.9



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1176.5	1176.5	1176.5	1176.5	1176.5	1176.5	1176.5	1176.5
2.5°	1173.9	1175.8	1177.6	1178.4	1178.2	1177.9	1177.7	1177.5
5°	1172.1	1174.4	1176.6	1177.6	1177.4	1177.0	1176.8	1176.5
7.5°	1165.0	1167.8	1170.7	1172.0	1171.6	1171.3	1170.9	1170.6
10°	1157.8	1160.7	1163.5	1164.7	1164.1	1163.5	1162.9	1162.4
12.5°	1148.2	1150.8	1153.4	1154.4	1153.8	1153.2	1152.7	1152.1
15°	1129.6	1132.5	1135.3	1136.6	1136.4	1136.0	1135.8	1135.5
17.5°	1105.5	1108.1	1110.6	1111.7	1111.3	1110.9	1110.5	1110.1
20°	1088.0	1090.6	1093.2	1094.6	1094.9	1095.2	1095.4	1095.8
22.5°	1068.9	1072.2	1075.4	1076.9	1076.8	1076.6	1076.4	1076.3
25°	1036.5	1040.2	1043.9	1045.8	1045.8	1045.8	1045.8	1045.8
27.5°	1002.7	1005.8	1009.0	1010.7	1011.0	1011.2	1011.5	1011.7
30°	979.6	983.0	986.3	988.1	988.1	988.1	988.1	988.1
32.5°	954.4	958.1	961.6	963.8	964.5	965.2	965.9	966.5
35°	917.2	921.5	925.7	928.5	929.6	930.7	931.9	932.9
37.5°	878.6	883.5	888.3	891.1	892.1	893.0	893.9	894.8
40°	853.0	857.8	862.7	865.6	866.7	867.9	869.0	870.2
42.5°	826.2	831.5	836.8	840.2	841.8	843.4	845.0	846.6
45°	786.2	791.6	797.0	800.9	803.2	805.4	807.7	809.9
47.5°	745.8	751.9	758.0	761.9	763.6	765.4	767.2	768.9
50°	718.0	724.6	731.1	735.3	737.4	739.3	741.4	743.3
52.5°	689.7	696.5	703.3	707.9	710.4	712.8	715.3	717.7
55°	647.2	654.8	662.6	667.6	669.8	672.1	674.4	676.7
57.5°	603.7	611.5	619.2	624.4	627.1	629.8	632.5	635.1
60°	573.4	581.4	589.4	594.9	598.1	601.2	604.3	607.5
62.5°	544.7	552.7	560.7	566.1	569.0	571.9	574.9	577.7
65°	499.0	507.5	516.1	521.7	524.6	527.4	530.3	533.1
67.5°	453.4	462.8	472.1	477.9	480.4	482.7	485.1	487.5
70°	423.2	432.4	441.4	447.4	450.3	453.1	455.9	458.8
72.5°	392.9	402.3	411.6	417.7	420.5	423.4	426.2	429.1
75°	346.9	356.3	365.7	372.1	375.5	379.0	382.4	385.7
77.5°	303.8	313.7	323.7	329.9	332.6	335.2	337.8	340.4
80°	275.7	285.4	295.1	301.3	304.2	307.0	309.9	312.7
82.5°	250.1	259.8	269.4	275.7	278.5	281.4	284.2	287.1
85°	214.2	223.9	233.5	239.8	242.6	245.5	248.3	251.2
87.5°	185.1	194.8	204.6	210.9	213.8	216.7	219.6	222.4
90°	176.2	186.3	196.3	202.9	206.0	209.0	212.1	215.2
92.5°	168.8	178.9	189.0	195.4	198.2	200.9	203.7	206.4
95°	160.4	169.9	179.5	185.7	188.6	191.4	194.2	197.1
97.5°	151.2	160.5	169.9	176.0	179.0	181.9	184.8	187.8
100°	145.0	154.1	163.2	169.2	172.2	175.1	178.1	181.0
102.5°	146.9	152.4	157.8	162.1	165.1	168.1	171.1	174.2
105°	177.3	167.0	156.7	153.0	155.7	158.5	161.3	164.0
107.5°	262.3	256.5	250.7	242.1	230.9	219.6	208.3	197.1
110°	299.7	303.7	307.7	303.5	291.0	278.5	266.0	253.5



TEST NUMBER: P332057-930

CATALOG NUMBER: S123DIP-S1165D585U930-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	323.5	330.8	337.9	341.3	340.7	340.1	339.4	338.8
115°	350.6	358.4	366.3	371.6	374.3	377.0	379.7	382.4
117.5°	373.8	381.4	389.1	394.0	396.3	398.6	400.9	403.2
120°	389.5	396.8	404.2	408.9	410.8	412.9	414.8	416.9
122.5°	404.6	411.5	418.3	422.8	424.9	427.0	429.1	431.1
125°	425.4	431.6	437.7	442.0	444.2	446.4	448.6	450.8
127.5°	446.3	452.2	458.2	462.1	463.8	465.5	467.2	469.0
130°	458.4	464.1	470.0	473.7	475.2	476.7	478.2	479.6
132.5°	469.5	475.1	480.7	484.3	486.0	487.6	489.3	490.9
135°	487.1	492.5	498.0	501.2	502.3	503.4	504.6	505.6
137.5°	502.3	507.3	512.3	515.4	516.6	517.8	519.0	520.2
140°	512.1	516.7	521.5	524.4	525.6	526.8	528.1	529.2
142.5°	520.7	524.8	529.0	531.6	532.7	533.9	535.0	536.1
145°	535.6	538.0	540.5	542.3	543.5	544.6	545.8	546.9
147.5°	549.3	550.2	551.1	551.9	552.4	553.0	553.5	554.1
150°	558.4	558.6	558.8	559.1	559.3	559.6	559.9	560.1
152.5°	567.7	568.0	568.4	568.4	568.1	567.7	567.4	567.0
155°	580.4	581.0	581.5	581.4	580.8	580.2	579.6	578.9
157.5°	591.5	592.2	592.8	592.6	591.8	591.1	590.3	589.5
160°	597.9	598.4	599.1	599.0	598.3	597.6	596.9	596.1
162.5°	603.6	604.3	605.0	605.0	604.4	603.7	603.1	602.5
165°	611.3	612.1	612.9	613.0	612.3	611.6	610.8	610.1
167.5°	617.3	618.1	618.9	618.9	618.1	617.3	616.4	615.6
170°	620.6	621.4	622.2	622.2	621.4	620.6	619.8	618.9
172.5°	622.8	623.6	624.4	624.4	623.5	622.6	621.7	620.8
175°	625.5	626.2	627.0	626.9	626.1	625.3	624.4	623.5
177.5°	626.5	627.1	627.8	627.7	626.9	626.1	625.3	624.4
180°	625.9	625.9	625.9	625.9	625.9	625.9	625.9	625.9

(END OF REPORT)