

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: P331317-927

Luminaire Tested: **SA2XXDIP-C485D925U927-4F0-1E-UDD-D4**

Issue Date: 10/7/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P331317-927  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-16,  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2019  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: SA2XXDIP-C485D925U927-4F0-1E-UDD-D4  
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 485 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 925 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

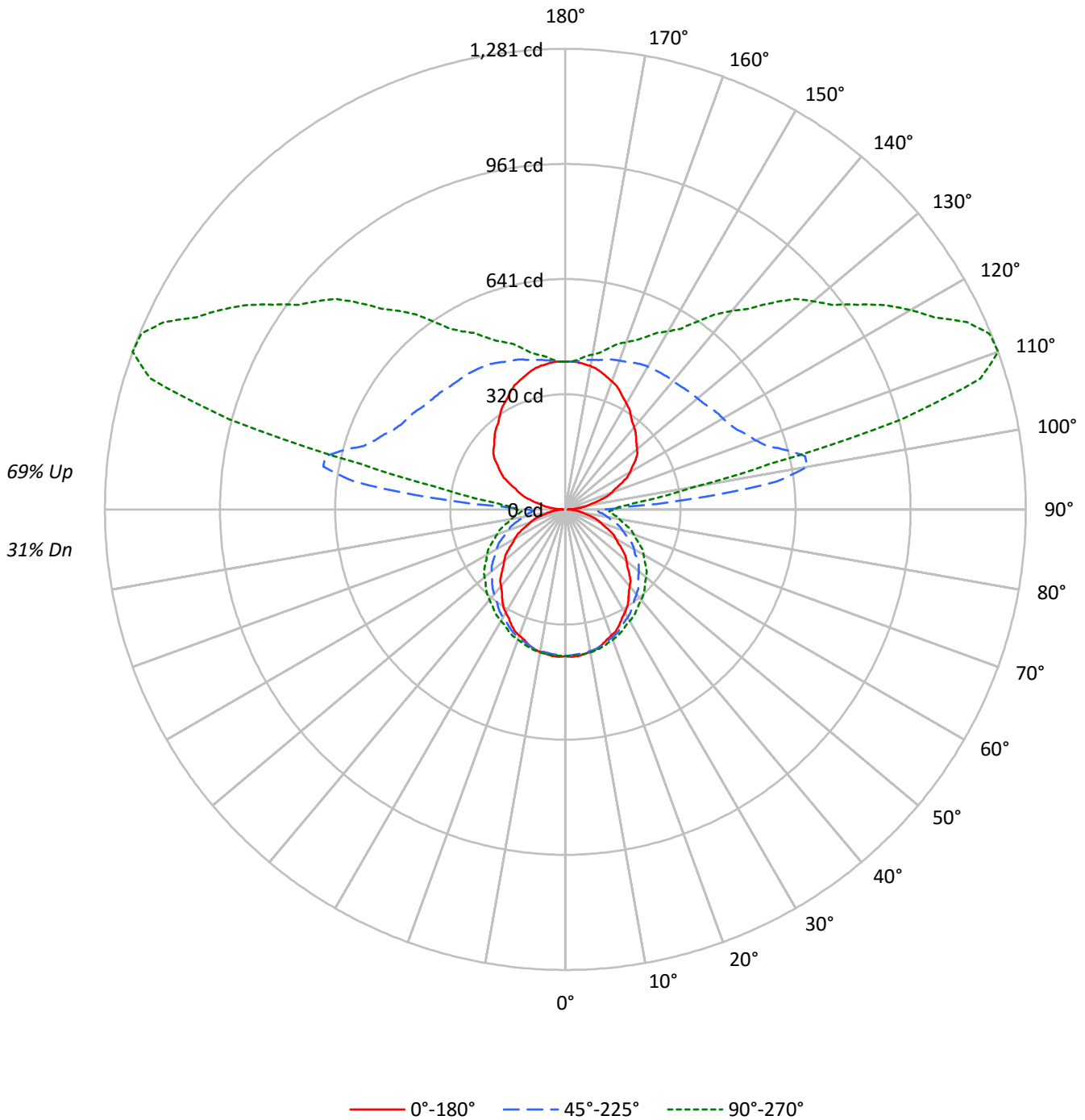
Lumens per Lamp: N/A  
Luminaire Lumens: 4422.0 lumens  
Efficiency: N/A  
Efficacy: 99.4 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')  
CIE Type: Semi-Indirect

Input Watts (W): 44.5  
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



TEST NUMBER: P331317-927  
CATALOG NUMBER: SA2XXDIP-C485D925U927-4F0-1E-UDD-D4

### Luminous Intensity Polar Plot





TEST NUMBER: P331317-927

CATALOG NUMBER: SA2XXDIP-C485D925U927-4F0-1E-UDD-D4

**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	50	30	10	0	
RCR																						
0	103	103	103	103	92	92	92	92	73	73	73	55	55	55	39	39	39	31	31	31	20	
1	93	88	84	80	83	79	76	72	62	60	58	47	45	44	33	32	31	24	24	24	24	
2	84	76	70	65	75	69	63	59	54	50	47	41	38	36	28	27	25	20	20	20	20	
3	76	67	59	53	68	60	54	48	47	43	39	36	33	30	25	23	21	16	16	16	16	
4	70	59	51	45	62	53	46	41	42	37	33	32	28	25	22	20	18	14	14	14	14	
5	64	52	44	38	57	47	40	35	37	32	28	28	25	22	20	17	15	12	12	12	12	
6	58	46	38	33	52	42	35	30	33	28	24	25	22	19	18	15	13	10	10	10	10	
7	54	42	34	28	48	38	31	26	30	25	21	23	19	16	16	14	12	9	9	9	9	
8	50	38	30	25	45	34	27	23	27	22	19	21	17	15	15	12	11	8	8	8	8	
9	46	34	27	22	42	31	25	20	25	20	16	19	16	13	14	11	9	7	7	7	7	
10	43	31	24	19	39	28	22	18	23	18	15	18	14	12	13	10	9	6	6	6	6	

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

	0°	45°	90°
0°	6591	6591	6591
5°	6623	6345	6320
10°	6581	6158	6088
15°	6491	5959	5843
20°	6376	5745	5607
25°	6263	5540	5394
30°	6103	5330	5178
35°	5943	5127	5028
40°	5773	4954	4876
45°	5612	4799	4746
50°	5439	4657	4618
55°	5257	4507	4488
60°	5033	4351	4351
65°	4802	4169	4189
70°	4546	3970	4013
75°	4214	3778	3850
80°	3692	3579	3685
85°	3187	3410	3559



TEST NUMBER: P331317-927

CATALOG NUMBER: SA2XXDIP-C485D925U927-4F0-1E-UDD-D4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	38.7	0.9
10°-20°	110.9	2.5
20°-30°	168.1	3.8
30°-40°	204.7	4.6
40°-50°	220.3	5.0
50°-60°	213.9	4.8
60°-70°	186.8	4.2
70°-80°	143.8	3.3
80°-90°	100.2	2.3
90°-100°	230.9	5.2
100°-110°	606.4	13.7
110°-120°	624.7	14.1
120°-130°	505.7	11.4
130°-140°	399.3	9.0
140°-150°	297.3	6.7
150°-160°	208.1	4.7
160°-170°	122.5	2.8
170°-180°	39.9	0.9
0°-30°	317.7	7.2
0°-40°	522.4	11.8
0°-60°	956.6	21.6
0°-90°	1387.3	31.4
90°-120°	1461.9	33.1
90°-150°	2664.3	60.3
90°-180°	3035.0	68.6
0°-180°	4422.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	408	408	408	408	408	
5°	409	408	404	407	407	39
15°	390	392	392	397	396	110
25°	355	359	364	371	373	163
35°	306	316	327	340	344	191
45°	251	267	288	305	312	194
55°	192	214	244	265	273	172
65°	131	161	195	219	227	130
75°	73	106	144	168	177	77
85°	21	58	96	120	129	23
90°	7	51	105	127	135	6
95°	32	101	378	207	188	33
105°	99	166	637	1118	969	106
115°	172	225	526	1064	1232	171
125°	238	283	491	855	992	212
135°	279	333	472	707	812	216
145°	318	365	463	579	636	200
155°	361	390	450	509	529	166
165°	394	406	431	457	464	111
175°	410	411	414	420	418	39
180°	411	411	411	411	411	



TEST NUMBER: P331317-927

CATALOG NUMBER: SA2XXDIP-C485D925U927-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	408.2	408.2	408.2	408.2	408.2	408.2	408.2	408.2	408.2	408.2	408.2
2.5°	410.6	410.3	410.0	409.6	409.3	408.8	408.1	407.3	406.6	405.8	406.4
5°	409.4	409.0	408.6	408.2	407.8	407.3	406.5	405.7	404.9	404.1	404.9
7.5°	405.8	405.4	405.2	405.0	404.7	404.3	403.6	403.1	402.4	401.8	402.7
10°	402.9	402.7	402.3	402.1	401.9	401.6	401.2	400.8	400.4	400.0	401.0
12.5°	398.2	398.2	398.3	398.3	398.4	398.2	398.0	397.7	397.4	397.1	398.2
15°	390.5	390.7	391.0	391.3	391.5	391.7	391.7	391.7	391.7	391.7	392.8
17.5°	380.6	381.1	381.7	382.2	382.8	383.3	383.7	384.0	384.5	384.9	386.1
20°	373.9	374.5	375.3	375.9	376.5	377.2	377.6	378.2	378.7	379.2	380.6
22.5°	366.8	367.6	368.4	369.1	369.9	370.6	371.4	372.1	372.8	373.6	375.0
25°	355.0	355.9	356.8	357.7	358.6	359.7	360.9	362.1	363.3	364.4	366.0
27.5°	340.8	342.3	343.8	345.3	346.7	348.2	349.6	351.0	352.4	353.8	355.8
30°	331.3	333.0	334.7	336.4	338.2	339.8	341.6	343.3	345.0	346.7	348.8
32.5°	320.9	322.8	324.7	326.7	328.6	330.6	332.6	334.6	336.6	338.7	341.0
35°	305.9	308.1	310.4	312.6	314.8	317.2	319.6	322.2	324.6	327.2	330.0
37.5°	289.5	292.2	294.7	297.3	299.8	302.8	306.0	309.2	312.4	315.7	318.9
40°	278.7	281.5	284.5	287.3	290.3	293.4	297.0	300.6	304.1	307.7	311.1
42.5°	268.2	271.2	274.0	276.9	279.8	283.3	287.4	291.4	295.6	299.6	303.3
45°	250.9	254.4	257.9	261.5	265.1	269.1	273.7	278.3	283.0	287.6	291.6
47.5°	233.7	237.6	241.5	245.3	249.1	253.8	259.2	264.6	270.0	275.4	279.6
50°	221.9	225.9	230.0	234.1	238.1	243.1	249.1	255.0	260.9	266.8	271.3
52.5°	210.5	214.8	219.0	223.4	227.7	232.9	239.2	245.3	251.6	257.9	262.4
55°	192.3	197.0	201.8	206.4	211.2	217.0	223.9	230.7	237.5	244.3	249.1
57.5°	174.3	179.7	185.0	190.3	195.7	201.8	208.7	215.7	222.7	229.7	234.8
60°	161.5	167.2	172.9	178.5	184.1	190.7	198.2	205.7	213.2	220.7	225.7
62.5°	150.1	156.0	161.9	167.8	173.6	180.3	187.7	195.3	202.8	210.2	215.6
65°	131.3	137.8	144.3	150.7	157.1	164.2	172.0	179.7	187.5	195.3	200.7
67.5°	114.1	120.8	127.5	134.3	141.0	148.3	156.3	164.2	172.1	180.1	185.5
70°	101.8	108.6	115.4	122.2	129.1	136.6	144.7	152.9	161.1	169.2	174.8
72.5°	90.4	97.4	104.5	111.5	118.6	126.3	134.5	142.8	151.0	159.2	164.9
75°	72.8	80.2	87.5	94.8	102.2	110.1	118.5	126.9	135.4	143.8	149.4
77.5°	55.8	63.5	71.1	78.8	86.6	94.7	103.2	111.8	120.3	128.9	134.5
80°	44.4	52.4	60.4	68.4	76.4	84.8	93.3	101.8	110.4	118.9	124.5
82.5°	34.9	42.9	50.7	58.6	66.5	74.9	83.5	92.1	100.8	109.5	114.9
85°	21.3	29.5	37.6	45.8	53.9	62.2	70.6	79.0	87.5	95.9	101.4
87.5°	11.7	20.0	28.5	36.7	44.8	53.5	62.7	72.2	81.5	90.1	95.3
90°	6.7	16.7	27.5	36.7	45.9	56.3	68.7	82.6	95.8	105.0	109.5
92.5°	15.1	26.5	39.2	49.8	62.3	77.3	103.3	136.6	167.1	176.6	165.8
95°	32.4	41.7	55.8	69.2	87.9	114.0	158.2	234.9	334.5	378.0	344.2
97.5°	49.2	58.9	72.9	89.1	109.2	137.2	190.4	293.8	453.8	592.0	622.8
100°	65.0	72.2	84.2	101.7	122.4	150.7	199.9	303.7	481.9	683.7	802.5
102.5°	79.1	85.2	96.8	113.9	134.8	162.7	208.7	301.5	466.8	683.6	867.4
105°	99.4	106.4	115.7	131.4	152.7	180.1	224.1	301.3	438.6	636.8	851.7
107.5°	122.1	127.6	136.1	150.0	170.3	197.4	240.0	307.9	422.3	587.0	777.2
110°	136.8	142.6	150.0	162.9	182.0	209.5	250.8	314.1	417.0	562.6	730.5



TEST NUMBER: P331317-927

CATALOG NUMBER: SA2XXDIP-C485D925U927-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	150.7	156.1	163.7	175.5	193.7	221.4	261.0	320.9	414.7	545.4	696.8
115°	172.4	177.8	183.9	194.9	212.1	237.2	277.1	331.2	413.8	525.7	654.6
117.5°	194.2	198.3	204.0	213.3	229.5	254.8	291.8	342.5	415.1	513.4	625.9
120°	208.1	211.8	217.1	224.7	241.1	266.1	302.2	350.1	416.3	506.1	610.2
122.5°	221.4	224.2	229.1	237.1	253.1	278.5	312.3	356.8	418.2	500.7	596.5
125°	238.4	240.7	245.5	255.0	270.8	295.0	327.7	367.5	420.7	491.3	576.3
127.5°	252.3	255.3	261.8	272.1	287.2	311.6	342.6	378.0	424.1	484.3	557.5
130°	260.5	263.6	271.3	282.3	297.9	321.4	351.8	384.6	426.9	480.3	545.1
132.5°	268.1	271.8	280.2	291.8	308.1	331.2	359.7	391.3	429.8	476.8	534.6
135°	278.9	282.0	291.5	303.4	321.5	344.4	371.0	400.0	432.9	472.2	520.0
137.5°	289.6	293.4	302.9	315.5	333.5	354.3	379.9	406.2	435.6	468.6	508.8
140°	297.9	300.9	310.2	322.7	340.0	360.7	384.6	409.4	436.6	466.0	502.2
142.5°	306.1	308.5	317.2	329.7	346.3	365.6	388.7	412.6	437.7	465.1	496.4
145°	317.8	321.0	328.9	340.8	356.6	374.0	395.3	417.5	439.6	463.3	489.4
147.5°	331.1	333.5	341.0	352.0	365.1	380.6	400.7	420.2	440.2	460.5	482.7
150°	340.0	342.3	348.6	358.9	370.8	385.0	403.2	421.4	439.6	458.6	477.5
152.5°	348.8	349.9	356.2	365.3	376.5	389.4	405.8	422.0	438.3	455.4	473.1
155°	361.3	362.1	366.9	375.6	384.2	396.1	409.6	422.9	436.4	449.9	464.9
157.5°	371.8	372.6	376.4	383.9	390.9	400.8	412.3	422.9	432.8	444.2	457.2
160°	378.7	379.5	382.6	389.0	395.3	404.0	413.5	422.9	430.9	440.4	451.5
162.5°	385.6	385.2	388.3	393.4	399.1	405.9	414.2	422.3	429.0	437.2	446.4
165°	393.7	392.9	394.5	399.3	403.2	408.0	415.1	420.6	425.3	430.9	438.0
167.5°	400.4	399.4	400.8	403.9	406.7	409.7	414.9	419.5	421.7	425.3	429.8
170°	404.8	403.2	404.0	406.4	408.0	410.4	414.3	418.3	419.9	422.2	425.3
172.5°	407.3	406.4	405.9	408.3	409.2	411.0	413.7	416.4	417.3	418.4	421.0
175°	410.4	409.6	408.8	410.4	410.4	411.1	412.7	414.3	413.5	414.3	415.1
177.5°	411.8	410.5	409.9	411.1	411.1	411.1	411.8	413.0	411.8	411.1	411.8
180°	411.1	411.1	411.1	411.1	411.1	411.1	411.1	411.1	411.1	411.1	411.1



TEST NUMBER: P331317-927

CATALOG NUMBER: SA2XXDIP-C485D925U927-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	408.2	408.2	408.2	408.2	408.2	408.2	408.2	408.2
2.5°	406.9	407.4	408.0	408.1	407.9	407.7	407.5	407.3
5°	405.7	406.5	407.3	407.6	407.4	407.3	407.2	407.0
7.5°	403.7	404.6	405.6	406.0	405.9	405.8	405.6	405.5
10°	402.0	403.1	404.2	404.6	404.5	404.3	404.3	404.1
12.5°	399.2	400.3	401.3	401.8	401.6	401.5	401.4	401.2
15°	394.0	395.2	396.4	396.9	396.8	396.6	396.5	396.4
17.5°	387.4	388.6	389.8	390.5	390.5	390.5	390.5	390.5
20°	382.1	383.6	385.0	385.7	385.7	385.7	385.7	385.7
22.5°	376.4	377.9	379.4	380.2	380.4	380.6	380.8	381.0
25°	367.6	369.2	370.7	371.8	372.2	372.6	373.0	373.4
27.5°	357.8	359.8	361.8	362.9	363.2	363.5	363.8	364.1
30°	350.9	353.0	355.1	356.3	356.7	357.1	357.5	357.9
32.5°	343.5	345.9	348.3	349.9	350.6	351.3	352.0	352.8
35°	333.0	335.9	338.7	340.6	341.6	342.5	343.4	344.4
37.5°	322.1	325.3	328.5	330.6	331.6	332.6	333.5	334.5
40°	314.5	317.9	321.3	323.6	324.8	326.0	327.2	328.4
42.5°	307.0	310.8	314.5	317.0	318.1	319.3	320.5	321.7
45°	295.7	299.8	303.8	306.5	307.8	309.2	310.5	311.8
47.5°	283.8	288.1	292.4	295.2	296.7	298.1	299.6	301.0
50°	275.8	280.2	284.7	287.6	289.1	290.6	292.0	293.4
52.5°	267.0	271.6	276.2	279.2	280.7	282.3	283.8	285.4
55°	253.8	258.6	263.2	266.5	268.2	269.9	271.6	273.3
57.5°	239.9	244.9	250.1	253.5	255.2	257.0	258.7	260.5
60°	230.7	235.7	240.7	244.1	245.9	247.8	249.6	251.4
62.5°	220.9	226.2	231.5	235.0	236.8	238.5	240.3	242.0
65°	206.0	211.4	216.8	220.4	222.0	223.8	225.5	227.2
67.5°	191.0	196.4	201.8	205.5	207.2	209.1	210.9	212.6
70°	180.5	186.2	191.8	195.4	197.0	198.6	200.2	201.8
72.5°	170.4	175.9	181.5	185.2	187.0	188.9	190.8	192.7
75°	155.1	160.7	166.4	170.1	171.7	173.5	175.2	176.9
77.5°	140.1	145.8	151.4	155.1	156.9	158.8	160.7	162.5
80°	130.0	135.5	141.0	144.7	146.6	148.4	150.2	152.0
82.5°	120.5	126.0	131.5	135.1	136.9	138.6	140.4	142.1
85°	106.9	112.4	118.0	121.6	123.4	125.3	127.1	129.0
87.5°	100.5	105.5	111.2	114.9	116.6	118.3	119.9	121.7
90°	113.9	117.6	124.5	128.7	130.2	131.8	133.4	135.0
92.5°	153.0	148.5	146.9	145.4	146.4	145.4	147.6	147.9
95°	285.2	241.9	213.7	199.6	190.9	186.2	185.4	187.7
97.5°	556.0	473.0	392.4	338.4	302.2	284.3	274.3	269.3
100°	790.8	697.5	594.1	501.6	437.4	404.9	383.4	370.6
102.5°	943.4	926.1	851.6	753.4	683.5	626.9	599.7	581.9
105°	1020.6	1114.6	1129.5	1106.4	1058.8	1011.3	978.7	969.2
107.5°	956.0	1095.0	1181.6	1222.8	1230.4	1229.2	1223.8	1210.6
110°	901.5	1047.3	1152.6	1220.3	1255.8	1272.2	1280.8	1281.4





TEST NUMBER: P331317-927

CATALOG NUMBER: SA2XXDIP-C485D925U927-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	851.4	991.4	1103.8	1181.0	1229.7	1256.2	1271.1	1276.8
115°	788.9	914.7	1022.2	1106.3	1163.9	1201.7	1223.7	1232.2
117.5°	740.7	851.4	949.3	1028.3	1086.8	1126.6	1149.6	1157.0
120°	715.9	817.6	905.1	979.6	1036.4	1075.0	1099.4	1108.7
122.5°	695.8	789.2	872.1	939.5	990.4	1028.2	1049.8	1057.6
125°	666.1	751.0	824.1	885.8	932.9	964.1	985.0	992.5
127.5°	636.7	713.6	782.5	839.5	880.6	909.9	928.1	934.4
130°	617.8	689.0	754.6	808.9	848.7	876.6	893.4	900.9
132.5°	599.6	665.6	726.0	777.1	816.3	844.2	859.8	866.6
135°	574.2	629.1	684.0	730.2	765.2	792.4	807.7	811.9
137.5°	553.1	599.2	643.0	683.3	715.2	738.5	751.9	757.6
140°	539.9	579.9	618.4	654.6	680.7	702.0	714.7	720.3
142.5°	529.2	563.2	596.1	626.4	651.2	670.5	681.8	683.4
145°	514.7	541.5	566.9	590.5	610.1	624.2	632.8	635.8
147.5°	503.7	524.3	543.6	560.5	576.6	587.6	593.3	595.0
150°	496.5	513.9	530.5	544.7	556.6	566.1	570.8	571.6
152.5°	489.6	505.6	519.8	532.1	541.4	549.6	553.1	553.3
155°	479.9	492.6	504.4	513.1	521.8	527.4	530.5	528.9
157.5°	468.7	479.3	489.3	496.1	502.2	506.8	508.2	508.2
160°	461.7	470.4	479.1	484.7	490.2	494.2	495.0	495.0
162.5°	454.8	462.2	469.6	473.9	479.4	482.1	482.9	482.3
165°	444.3	449.9	455.4	458.6	461.7	464.9	464.9	464.1
167.5°	434.4	438.6	442.4	445.3	446.7	448.5	448.3	447.3
170°	429.3	431.7	434.8	436.4	437.2	439.6	438.8	437.2
172.5°	423.6	425.3	427.9	428.8	429.6	430.7	429.9	429.0
175°	417.5	418.3	419.1	419.9	419.9	420.6	419.9	418.3
177.5°	413.0	413.0	413.7	413.7	413.7	413.7	413.0	411.8
180°	411.1	411.1	411.1	411.1	411.1	411.1	411.1	411.1

(END OF REPORT)