

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: P331317-930

Luminaire Tested: **SA2XXDIP-C485D925U930-4F0-1E-UDD-D4**

Issue Date: 10/7/2019

**Test Information**

Test Method: LM-79-08  
Report Number: P331317-930  
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-C485D925U930-4F0-1E-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

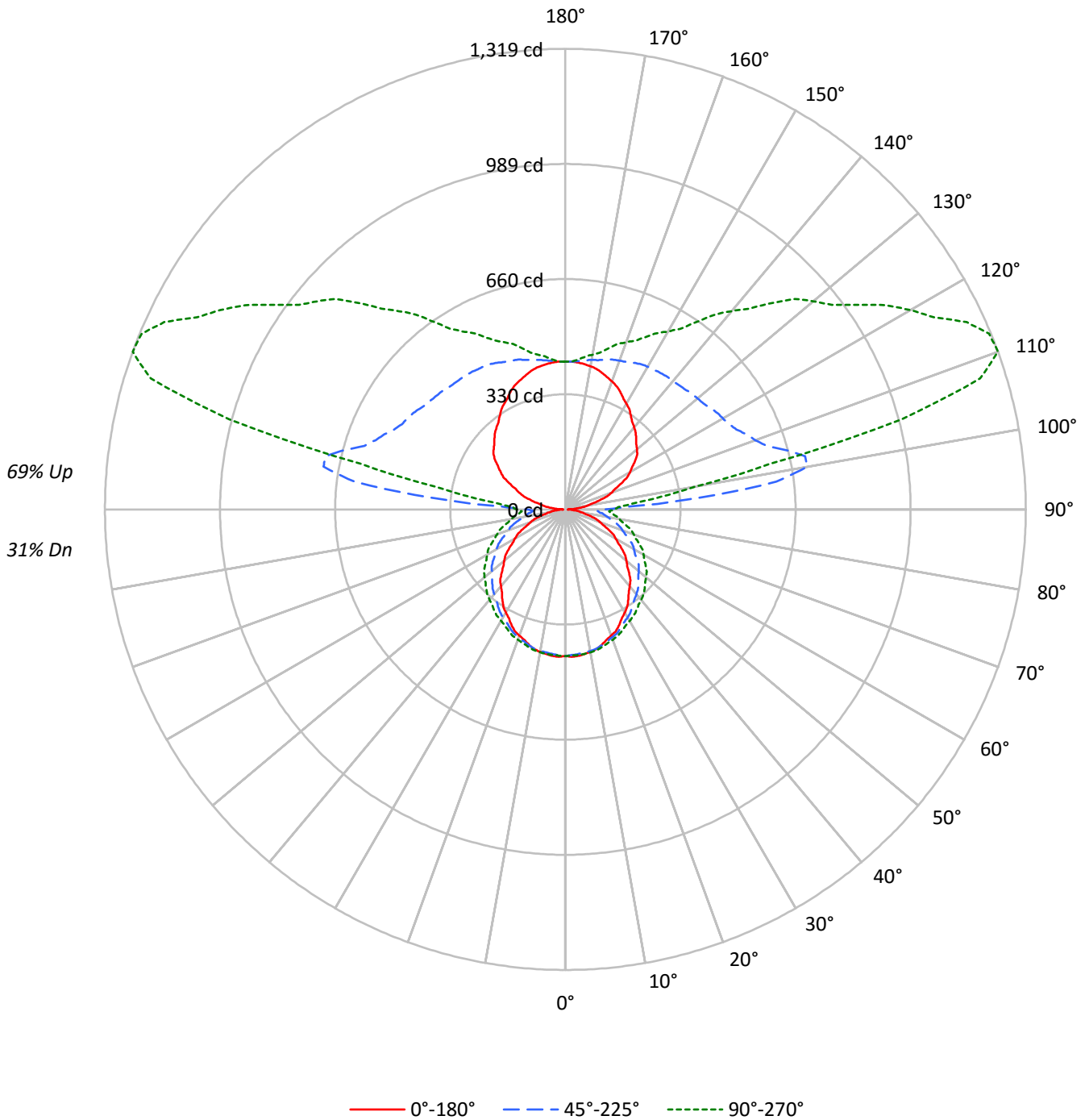
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4551.0 lumens  
Efficiency: N/A  
Efficacy: 102.3 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: P331317-930  
CATALOG NUMBER: SA2XXDIP-C485D925U930-4F0-1E-UDD-D4

### Luminous Intensity Polar Plot





TEST NUMBER: P331317-930

CATALOG NUMBER: SA2XXDIP-C485D925U930-4F0-1E-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°	6783	6783	6783
5°	6816	6530	6505
10°	6774	6337	6266
15°	6681	6133	6014
20°	6562	5913	5771
25°	6445	5701	5552
30°	6282	5486	5330
35°	6116	5276	5174
40°	5941	5099	5017
45°	5775	4940	4885
50°	5598	4794	4753
55°	5410	4638	4620
60°	5180	4477	4479
65°	4944	4290	4310
70°	4679	4085	4131
75°	4335	3888	3964
80°	3800	3685	3794
85°	3277	3510	3661



TEST NUMBER: P331317-930

CATALOG NUMBER: SA2XXDIP-C485D925U930-4F0-1E-UDD-D4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	39.8	0.9
10°-20°	114.2	2.5
20°-30°	173.0	3.8
30°-40°	210.7	4.6
40°-50°	226.7	5.0
50°-60°	220.1	4.8
60°-70°	192.2	4.2
70°-80°	148.0	3.3
80°-90°	103.1	2.3
90°-100°	237.6	5.2
100°-110°	624.1	13.7
110°-120°	642.9	14.1
120°-130°	520.5	11.4
130°-140°	410.9	9.0
140°-150°	306.0	6.7
150°-160°	214.1	4.7
160°-170°	126.0	2.8
170°-180°	41.0	0.9
0°-30°	327.0	7.2
0°-40°	537.7	11.8
0°-60°	984.5	21.6
0°-90°	1427.8	31.4
90°-120°	1504.6	33.1
90°-150°	2742.0	60.3
90°-180°	3123.0	68.6
0°-180°	4551.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	420	420	420	420	420	
5°	421	419	416	419	419	40
15°	402	403	403	408	408	113
25°	365	370	375	382	384	168
35°	315	325	337	350	354	197
45°	258	275	296	314	321	199
55°	198	220	251	273	281	177
65°	135	165	201	225	234	134
75°	75	109	148	173	182	79
85°	22	60	99	123	133	24
90°	7	53	108	130	139	6
95°	33	104	389	213	193	34
105°	102	171	655	1151	997	109
115°	177	231	541	1095	1268	176
125°	245	291	506	880	1022	218
135°	287	343	486	728	836	222
145°	327	376	477	596	654	205
155°	372	402	463	524	544	171
165°	405	417	443	470	478	114
175°	422	423	426	432	430	40
180°	423	423	423	423	423	



TEST NUMBER: P331317-930

CATALOG NUMBER: SA2XXDIP-C485D925U930-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	420.1	420.1	420.1	420.1	420.1	420.1	420.1	420.1	420.1	420.1	420.1
2.5°	422.6	422.2	421.9	421.6	421.3	420.7	420.0	419.2	418.5	417.7	418.2
5°	421.3	420.9	420.5	420.1	419.7	419.1	418.3	417.5	416.7	415.9	416.7
7.5°	417.6	417.3	417.0	416.8	416.5	416.0	415.4	414.8	414.2	413.5	414.5
10°	414.7	414.4	414.1	413.8	413.6	413.3	412.9	412.5	412.1	411.6	412.7
12.5°	409.8	409.9	409.9	409.9	410.0	409.9	409.6	409.3	409.0	408.7	409.8
15°	401.9	402.1	402.4	402.7	402.9	403.1	403.1	403.1	403.1	403.1	404.3
17.5°	391.7	392.2	392.8	393.4	394.0	394.4	394.8	395.3	395.7	396.2	397.4
20°	384.8	385.5	386.2	386.9	387.5	388.2	388.7	389.2	389.8	390.3	391.8
22.5°	377.5	378.3	379.1	379.8	380.7	381.4	382.2	382.9	383.7	384.5	386.0
25°	365.3	366.3	367.2	368.2	369.1	370.2	371.5	372.7	373.9	375.0	376.7
27.5°	350.7	352.3	353.8	355.4	356.9	358.4	359.8	361.3	362.6	364.1	366.2
30°	341.0	342.8	344.5	346.3	348.1	349.8	351.6	353.3	355.1	356.8	359.0
32.5°	330.3	332.2	334.2	336.2	338.2	340.2	342.3	344.4	346.4	348.5	351.0
35°	314.8	317.1	319.4	321.7	324.0	326.4	329.0	331.6	334.1	336.7	339.7
37.5°	298.0	300.7	303.3	306.0	308.6	311.6	315.0	318.2	321.6	324.9	328.2
40°	286.8	289.8	292.8	295.7	298.7	302.0	305.7	309.3	313.0	316.7	320.2
42.5°	276.1	279.1	282.0	285.0	288.0	291.6	295.8	299.9	304.2	308.3	312.2
45°	258.2	261.8	265.5	269.1	272.8	277.0	281.7	286.4	291.2	296.0	300.1
47.5°	240.5	244.5	248.5	252.4	256.4	261.2	266.8	272.3	277.9	283.4	287.8
50°	228.4	232.5	236.8	240.9	245.1	250.2	256.3	262.4	268.6	274.6	279.2
52.5°	216.6	221.0	225.4	229.9	234.3	239.7	246.1	252.5	258.9	265.4	270.0
55°	197.9	202.8	207.7	212.5	217.4	223.3	230.4	237.4	244.4	251.4	256.3
57.5°	179.4	184.9	190.4	195.8	201.4	207.7	214.8	222.0	229.2	236.4	241.7
60°	166.2	172.0	177.9	183.7	189.5	196.2	204.0	211.7	219.4	227.1	232.3
62.5°	154.5	160.5	166.6	172.7	178.7	185.6	193.2	201.0	208.7	216.4	221.8
65°	135.2	141.8	148.5	155.1	161.7	169.0	177.0	185.0	193.0	201.0	206.5
67.5°	117.4	124.3	131.3	138.2	145.1	152.6	160.9	169.0	177.2	185.3	190.9
70°	104.8	111.8	118.8	125.8	132.9	140.6	149.0	157.4	165.8	174.1	179.9
72.5°	93.0	100.3	107.5	114.8	122.1	130.0	138.4	146.9	155.4	163.9	169.7
75°	74.9	82.5	90.0	97.6	105.2	113.3	122.0	130.6	139.3	148.0	153.8
77.5°	57.4	65.3	73.2	81.1	89.1	97.4	106.2	115.0	123.8	132.6	138.4
80°	45.7	53.9	62.2	70.4	78.7	87.2	96.0	104.8	113.6	122.4	128.1
82.5°	36.0	44.1	52.2	60.3	68.5	77.0	85.9	94.8	103.7	112.7	118.3
85°	21.9	30.3	38.7	47.1	55.4	64.0	72.6	81.3	90.0	98.7	104.4
87.5°	12.1	20.6	29.4	37.7	46.1	55.0	64.5	74.3	83.9	92.7	98.1
90°	6.9	17.2	28.3	37.7	47.2	58.0	70.7	85.0	98.6	108.0	112.7
92.5°	15.5	27.2	40.4	51.3	64.1	79.6	106.3	140.6	171.9	181.7	170.6
95°	33.3	43.0	57.5	71.2	90.5	117.3	162.8	241.7	344.2	389.0	354.2
97.5°	50.6	60.7	75.0	91.7	112.3	141.2	196.0	302.4	467.1	609.3	641.0
100°	66.9	74.4	86.7	104.7	126.0	155.1	205.8	312.6	495.9	703.7	825.9
102.5°	81.4	87.7	99.6	117.2	138.8	167.5	214.7	310.3	480.4	703.5	892.7
105°	102.3	109.5	119.1	135.3	157.1	185.3	230.6	310.1	451.3	655.3	876.5
107.5°	125.6	131.3	140.1	154.4	175.3	203.2	247.0	316.9	434.6	604.1	799.9
110°	140.8	146.8	154.3	167.6	187.4	215.6	258.1	323.3	429.2	579.0	751.8



TEST NUMBER: P331317-930

CATALOG NUMBER: SA2XXDIP-C485D925U930-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	155.1	160.6	168.4	180.6	199.3	227.9	268.6	330.3	426.8	561.3	717.1
115°	177.4	183.0	189.3	200.6	218.3	244.1	285.2	340.9	425.9	541.0	673.7
117.5°	199.9	204.1	209.9	219.6	236.2	262.3	300.3	352.5	427.2	528.4	644.2
120°	214.2	218.0	223.4	231.3	248.1	273.9	311.0	360.4	428.4	520.9	628.0
122.5°	227.9	230.7	235.8	244.0	260.5	286.6	321.4	367.2	430.4	515.4	613.9
125°	245.3	247.8	252.7	262.4	278.7	303.6	337.3	378.2	433.0	505.6	593.1
127.5°	259.7	262.8	269.5	280.1	295.5	320.7	352.6	389.0	436.4	498.5	573.8
130°	268.1	271.3	279.2	290.5	306.6	330.8	362.1	395.8	439.4	494.3	561.0
132.5°	275.9	279.7	288.4	300.3	317.1	340.9	370.2	402.7	442.3	490.7	550.2
135°	287.1	290.2	300.0	312.3	330.9	354.4	381.8	411.6	445.6	486.0	535.2
137.5°	298.1	302.0	311.7	324.7	343.2	364.7	390.9	418.1	448.3	482.2	523.7
140°	306.6	309.7	319.3	332.2	349.9	371.2	395.8	421.3	449.3	479.6	516.8
142.5°	315.0	317.5	326.4	339.3	356.4	376.3	400.1	424.7	450.5	478.7	510.9
145°	327.1	330.4	338.5	350.7	367.0	384.9	406.8	429.7	452.4	476.8	503.7
147.5°	340.8	343.2	351.0	362.2	375.8	391.8	412.4	432.4	453.1	473.9	496.8
150°	349.9	352.3	358.8	369.4	381.6	396.2	415.0	433.7	452.4	472.0	491.5
152.5°	359.0	360.1	366.6	375.9	387.5	400.8	417.6	434.3	451.1	468.7	486.9
155°	371.9	372.7	377.6	386.5	395.4	407.6	421.5	435.3	449.1	463.0	478.4
157.5°	382.6	383.4	387.3	395.1	402.3	412.5	424.3	435.3	445.4	457.1	470.5
160°	389.8	390.6	393.8	400.3	406.8	415.8	425.6	435.3	443.4	453.2	464.6
162.5°	396.9	396.4	399.7	404.9	410.7	417.8	426.2	434.6	441.5	450.0	459.4
165°	405.2	404.4	406.0	410.9	415.0	419.9	427.2	432.9	437.7	443.4	450.8
167.5°	412.1	411.1	412.5	415.6	418.6	421.7	427.1	431.8	434.0	437.7	442.3
170°	416.6	415.0	415.8	418.2	419.9	422.3	426.4	430.5	432.1	434.5	437.7
172.5°	419.2	418.2	417.8	420.2	421.2	423.0	425.7	428.5	429.5	430.6	433.3
175°	422.3	421.5	420.7	422.3	422.3	423.1	424.8	426.4	425.6	426.4	427.2
177.5°	423.8	422.5	421.8	423.1	423.1	423.1	423.8	425.1	423.8	423.1	423.8
180°	423.1	423.1	423.1	423.1	423.1	423.1	423.1	423.1	423.1	423.1	423.1



TEST NUMBER: P331317-930

CATALOG NUMBER: SA2XXDIP-C485D925U930-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	420.1	420.1	420.1	420.1	420.1	420.1	420.1	420.1
2.5°	418.8	419.3	419.9	420.0	419.8	419.6	419.4	419.1
5°	417.5	418.3	419.1	419.5	419.3	419.2	419.1	418.9
7.5°	415.5	416.5	417.4	417.8	417.8	417.6	417.4	417.4
10°	413.8	414.8	416.0	416.5	416.3	416.1	416.0	415.9
12.5°	410.8	412.0	413.0	413.5	413.4	413.2	413.1	412.9
15°	405.5	406.8	408.0	408.5	408.4	408.2	408.1	408.0
17.5°	398.7	400.0	401.2	401.9	401.9	401.9	401.9	401.9
20°	393.3	394.8	396.2	397.0	397.0	397.0	397.0	397.0
22.5°	387.4	388.9	390.4	391.3	391.5	391.7	391.9	392.2
25°	378.3	379.9	381.6	382.6	383.0	383.4	383.8	384.3
27.5°	368.3	370.3	372.3	373.5	373.8	374.1	374.4	374.7
30°	361.2	363.3	365.5	366.7	367.1	367.5	367.9	368.4
32.5°	353.5	356.0	358.5	360.1	360.9	361.6	362.3	363.1
35°	342.7	345.7	348.6	350.6	351.6	352.5	353.4	354.4
37.5°	331.5	334.8	338.1	340.2	341.3	342.3	343.2	344.3
40°	323.7	327.2	330.7	333.0	334.3	335.5	336.7	337.9
42.5°	316.0	319.8	323.7	326.3	327.4	328.6	329.9	331.1
45°	304.4	308.5	312.7	315.4	316.8	318.2	319.5	320.9
47.5°	292.1	296.5	300.9	303.9	305.3	306.8	308.3	309.8
50°	283.8	288.4	293.0	296.0	297.6	299.1	300.5	302.0
52.5°	274.8	279.5	284.2	287.3	288.9	290.6	292.1	293.8
55°	261.2	266.1	270.9	274.3	276.1	277.8	279.6	281.3
57.5°	246.9	252.1	257.4	260.9	262.7	264.5	266.3	268.1
60°	237.4	242.6	247.7	251.2	253.1	255.0	256.9	258.8
62.5°	227.3	232.8	238.2	241.9	243.7	245.5	247.3	249.1
65°	212.1	217.6	223.1	226.8	228.5	230.3	232.0	233.8
67.5°	196.6	202.1	207.7	211.5	213.3	215.2	217.0	218.8
70°	185.8	191.6	197.4	201.1	202.8	204.4	206.0	207.7
72.5°	175.4	181.1	186.8	190.6	192.5	194.4	196.4	198.4
75°	159.6	165.4	171.2	175.0	176.8	178.6	180.3	182.1
77.5°	144.2	150.0	155.8	159.6	161.5	163.4	165.3	167.2
80°	133.8	139.4	145.1	148.9	150.8	152.7	154.6	156.5
82.5°	124.0	129.7	135.3	139.1	140.9	142.7	144.5	146.3
85°	110.0	115.7	121.4	125.1	127.0	129.0	130.9	132.7
87.5°	103.5	108.6	114.5	118.3	120.0	121.7	123.4	125.2
90°	117.2	121.0	128.1	132.4	134.0	135.7	137.3	138.9
92.5°	157.5	152.8	151.2	149.7	150.7	149.6	151.9	152.2
95°	293.5	249.0	220.0	205.5	196.5	191.6	190.8	193.2
97.5°	572.3	486.8	403.8	348.3	311.0	292.6	282.3	277.1
100°	813.8	717.9	611.5	516.2	450.2	416.7	394.6	381.4
102.5°	970.9	953.1	876.4	775.3	703.4	645.1	617.2	598.8
105°	1050.4	1147.1	1162.5	1138.7	1089.7	1040.8	1007.3	997.4
107.5°	983.9	1126.9	1216.1	1258.5	1266.3	1265.1	1259.6	1245.9
110°	927.8	1077.8	1186.3	1255.9	1292.4	1309.4	1318.2	1318.8





TEST NUMBER: P331317-930

CATALOG NUMBER: SA2XXDIP-C485D925U930-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	876.3	1020.3	1136.0	1215.4	1265.6	1292.9	1308.2	1314.1
115°	812.0	941.3	1052.0	1138.6	1197.8	1236.7	1259.4	1268.2
117.5°	762.3	876.3	977.0	1058.3	1118.5	1159.4	1183.2	1190.7
120°	736.8	841.5	931.5	1008.2	1066.7	1106.4	1131.5	1141.1
122.5°	716.1	812.2	897.6	966.9	1019.3	1058.2	1080.4	1088.5
125°	685.5	772.9	848.2	911.7	960.1	992.2	1013.7	1021.5
127.5°	655.3	734.4	805.4	864.0	906.3	936.5	955.2	961.6
130°	635.9	709.1	776.6	832.5	873.4	902.2	919.5	927.2
132.5°	617.1	685.0	747.2	799.8	840.1	868.9	884.8	891.9
135°	590.9	647.4	704.0	751.5	787.6	815.5	831.3	835.6
137.5°	569.2	616.7	661.8	703.2	736.1	760.0	773.8	779.7
140°	555.6	596.8	636.4	673.7	700.6	722.5	735.6	741.3
142.5°	544.6	579.6	613.5	644.7	670.2	690.1	701.6	703.4
145°	529.7	557.3	583.4	607.7	627.9	642.5	651.3	654.4
147.5°	518.4	539.6	559.5	576.9	593.4	604.7	610.6	612.4
150°	511.0	528.9	546.0	560.6	572.8	582.6	587.5	588.3
152.5°	503.9	520.4	534.9	547.6	557.2	565.7	569.2	569.4
155°	493.9	507.0	519.1	528.1	537.0	542.7	546.0	544.4
157.5°	482.3	493.3	503.5	510.5	516.8	521.5	523.0	523.0
160°	475.2	484.1	493.1	498.8	504.5	508.6	509.4	509.4
162.5°	468.1	475.6	483.3	487.7	493.4	496.2	497.0	496.4
165°	457.3	463.0	468.7	472.0	475.2	478.4	478.4	477.6
167.5°	447.0	451.4	455.3	458.3	459.7	461.5	461.4	460.4
170°	441.8	444.3	447.5	449.1	450.0	452.4	451.6	450.0
172.5°	435.9	437.7	440.3	441.3	442.1	443.3	442.5	441.5
175°	429.7	430.5	431.3	432.1	432.1	432.9	432.1	430.5
177.5°	425.1	425.1	425.7	425.7	425.7	425.7	425.1	423.8
180°	423.1	423.1	423.1	423.1	423.1	423.1	423.1	423.1

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