

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: P331299-927

Luminaire Tested: **SA2XXDIP-C485D530U927-4F0-1E-UDD-D4**

Issue Date: 10/7/2019

Test Information

Test Method: LM-79-08
Report Number: P331299-927
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-C485D530U927-4F0-1E-UDD-D4
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 485 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 530 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

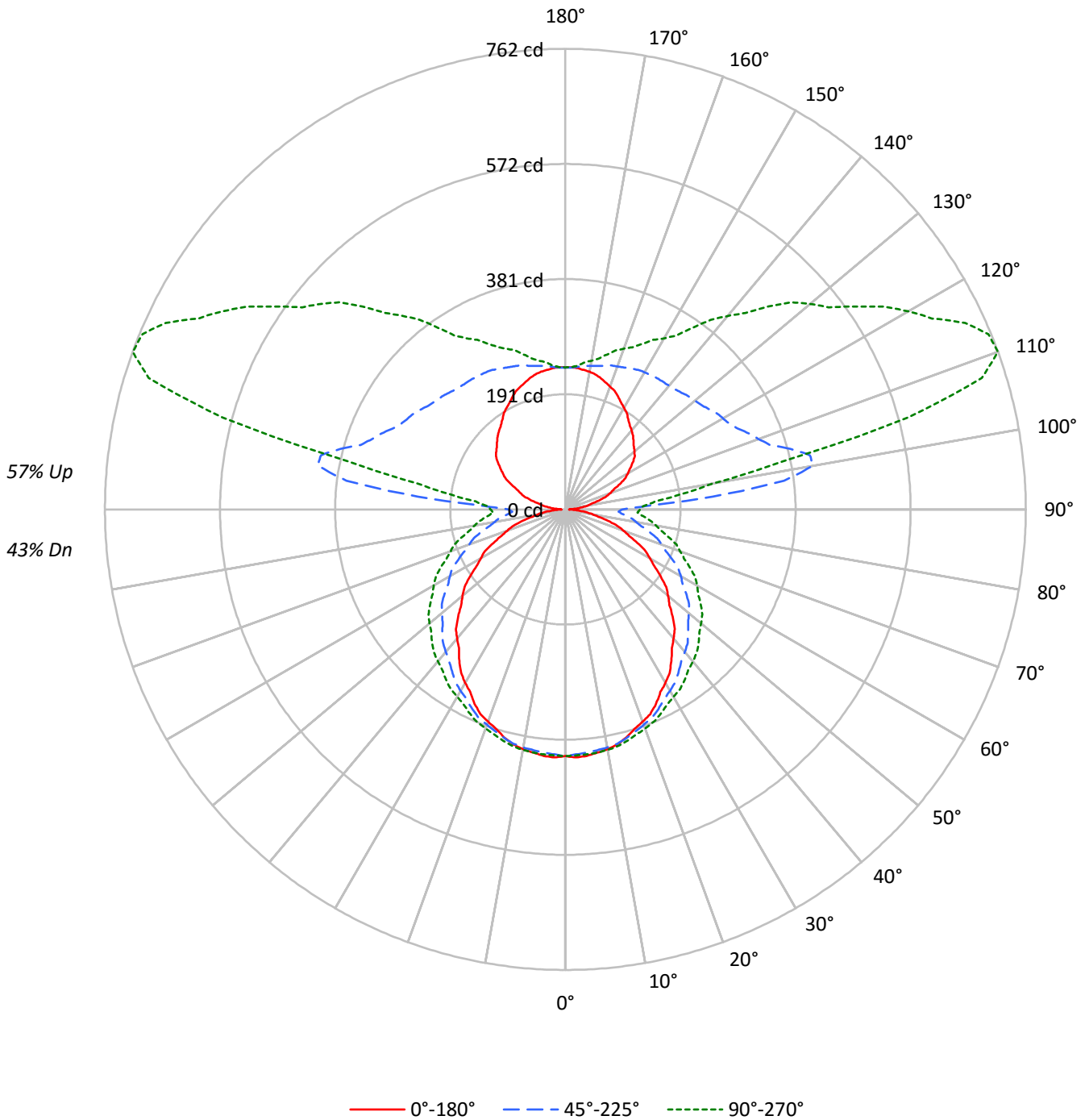
Lumens per Lamp: N/A
Luminaire Lumens: 3194.3 lumens
Efficiency: N/A
Efficacy: 97.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')
CIE Type: General Diffuse

Input Watts (W): 32.8
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: P331299-927
CATALOG NUMBER: SA2XXDIP-C485D530U927-4F0-1E-UDD-D4

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	50	30	10	0	
RCR																						
0	106	106	106	106	97	97	97	97	80	80	80	64	64	64	50	50	50	43				
1	95	90	86	82	87	82	79	75	68	65	63	54	53	51	42	41	40	34				
2	86	78	71	66	78	71	66	61	59	54	51	47	44	41	36	34	32	27				
3	78	68	60	54	71	62	55	50	51	46	42	41	37	34	32	29	27	23				
4	71	60	52	45	65	55	48	42	45	40	35	36	32	29	28	25	23	19				
5	65	53	45	39	59	49	41	36	40	35	30	32	28	25	25	22	20	16				
6	60	47	39	33	54	44	36	31	36	30	26	29	25	22	23	20	17	14				
7	55	43	35	29	50	39	32	27	33	27	23	26	22	19	21	18	15	12				
8	51	39	31	25	47	36	29	24	30	24	20	24	20	17	19	16	13	11				
9	48	35	28	22	43	32	26	21	27	22	18	22	18	15	17	14	12	10				
10	44	32	25	20	40	30	23	19	25	20	16	20	16	13	16	13	11	9				

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: P331299-927

CATALOG NUMBER: SA2XXDIP-C485D530U927-4F0-1E-UDD-D4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.7	1.2
10°-20°	110.9	3.5
20°-30°	168.1	5.3
30°-40°	204.7	6.4
40°-50°	220.3	6.9
50°-60°	213.9	6.7
60°-70°	186.8	5.8
70°-80°	143.8	4.5
80°-90°	98.6	3.1
90°-100°	160.4	5.0
100°-110°	367.3	11.5
110°-120°	370.7	11.6
120°-130°	296.7	9.3
130°-140°	231.4	7.2
140°-150°	170.5	5.3
150°-160°	118.9	3.7
160°-170°	70.0	2.2
170°-180°	22.8	0.7
0°-30°	317.7	9.9
0°-40°	522.4	16.4
0°-60°	956.6	29.9
0°-90°	1385.7	43.4
90°-120°	898.4	28.1
90°-150°	1596.9	50.0
90°-180°	1809.0	56.6
0°-180°	3194.3	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°	6	46	94	116	124	5
95°	20	72	245	157	149	20
105°	58	104	386	669	587	62
115°	100	133	316	631	730	98
125°	137	163	289	504	585	122
135°	160	191	273	412	474	123
145°	182	209	265	332	366	114
155°	206	223	257	291	302	95
165°	225	232	246	261	265	63
175°	234	235	237	240	239	22
180°	235	235	235	235	235	



TEST NUMBER: P331299-927

CATALOG NUMBER: SA2XXDIP-C485D530U927-4F0-1E-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	19.8	28.0	36.0	44.0	52.4	61.3	70.3	79.3	87.8	93.1
90°	6.3	15.4	24.8	33.3	41.8	51.2	61.9	73.4	84.6	93.5	98.2
92.5°	10.9	20.5	30.8	39.9	50.1	61.9	80.2	102.7	123.7	132.5	128.6
95°	20.5	28.5	39.2	49.5	62.9	80.7	109.4	156.6	216.9	245.1	228.0
97.5°	29.9	37.9	48.1	59.7	73.6	92.4	126.0	188.4	283.0	365.3	384.9
100°	38.9	45.2	54.1	66.1	80.1	98.9	130.2	192.6	297.5	416.1	486.0
102.5°	46.7	52.2	60.7	72.4	86.2	104.6	134.0	190.1	287.6	414.5	521.6
105°	58.1	63.7	70.7	81.3	95.0	113.0	141.1	188.1	269.5	385.6	510.4
107.5°	71.0	75.5	81.6	90.9	103.8	121.3	148.5	190.0	258.3	355.1	465.7
110°	79.1	83.6	89.0	97.4	109.6	127.2	153.5	192.5	254.1	340.0	437.8



TEST NUMBER: P331299-927

CATALOG NUMBER: SA2XXDIP-C485D530U927-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	87.1	91.1	96.4	104.2	115.5	133.1	158.4	195.2	251.4	328.8	417.1
115°	99.5	103.2	107.3	114.2	124.7	140.6	166.0	199.4	249.1	315.6	390.9
117.5°	111.7	114.5	118.1	123.9	133.5	149.3	172.8	204.1	248.0	306.5	372.5
120°	119.7	122.0	125.2	129.8	139.4	155.0	177.8	207.5	247.6	301.1	362.2
122.5°	127.3	129.0	131.8	136.5	145.8	161.3	182.8	210.3	247.6	296.8	353.1
125°	136.7	138.1	140.8	146.2	155.3	170.0	190.4	215.0	247.2	289.4	339.5
127.5°	144.7	146.3	150.0	155.8	164.4	179.0	198.2	219.8	247.6	283.6	326.8
130°	149.3	151.1	155.4	161.6	170.6	184.5	203.0	223.0	248.3	280.0	318.4
132.5°	153.7	155.7	160.5	167.1	176.3	190.0	207.2	226.1	249.0	276.8	311.1
135°	159.6	161.4	166.8	173.6	184.0	197.3	213.1	230.2	249.6	272.6	301.1
137.5°	165.7	167.9	173.3	180.5	190.8	202.8	217.6	233.0	250.0	269.1	293.1
140°	170.5	172.1	177.4	184.5	194.3	206.1	220.0	234.2	249.9	266.8	288.4
142.5°	175.2	176.5	181.4	188.5	198.0	208.9	222.2	235.8	250.2	265.9	284.5
145°	181.6	183.4	187.9	194.7	203.7	213.7	225.9	238.5	251.2	264.7	280.0
147.5°	189.2	190.5	194.9	201.1	208.7	217.5	228.9	240.1	251.5	263.1	275.8
150°	194.2	195.6	199.2	205.1	211.9	220.0	230.4	240.8	251.2	262.1	272.9
152.5°	199.3	199.9	203.6	208.7	215.2	222.5	231.9	241.1	250.5	260.2	270.4
155°	206.4	206.9	209.6	214.6	219.6	226.3	234.0	241.7	249.4	257.1	265.6
157.5°	212.4	212.9	215.1	219.4	223.4	229.0	235.5	241.7	247.3	253.8	261.2
160°	216.4	216.8	218.6	222.3	225.9	230.8	236.3	241.7	246.2	251.7	257.9
162.5°	220.4	220.1	221.9	224.8	228.1	232.0	236.6	241.3	245.1	249.9	255.1
165°	225.0	224.5	225.5	228.1	230.4	233.1	237.2	240.3	243.0	246.2	250.3
167.5°	228.8	228.2	229.0	230.8	232.4	234.1	237.1	239.7	241.0	243.0	245.6
170°	231.3	230.4	230.8	232.2	233.1	234.5	236.7	239.0	239.9	241.2	243.0
172.5°	232.7	232.2	232.0	233.3	233.9	234.8	236.4	237.9	238.4	239.1	240.5
175°	234.5	234.0	233.5	234.5	234.5	234.9	235.8	236.7	236.3	236.7	237.2
177.5°	235.3	234.6	234.2	234.9	234.9	234.9	235.3	236.0	235.3	234.9	235.3
180°	234.9	234.9	234.9	234.9	234.9	234.9	234.9	234.9	234.9	234.9	234.9



TEST NUMBER: P331299-927

CATALOG NUMBER: SA2XXDIP-C485D530U927-4F0-1E-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°	98.3	103.5	109.1	112.6	114.4	116.1	117.7	119.4
90°	103.1	107.4	113.6	117.5	119.1	120.6	122.2	123.7
92.5°	123.5	123.1	124.5	125.0	126.2	126.4	128.3	129.1
95°	196.4	173.8	159.9	153.2	148.9	146.9	147.1	149.1
97.5°	348.9	303.5	259.5	230.1	210.1	200.5	195.4	193.2
100°	481.3	430.2	373.2	321.7	285.6	267.6	256.0	249.3
102.5°	567.1	559.2	518.7	463.9	424.6	392.8	378.0	368.4
105°	609.0	664.6	675.1	663.2	636.7	610.1	592.2	587.2
107.5°	569.8	651.1	702.5	727.3	732.3	732.2	729.8	722.8
110°	537.3	622.3	684.4	724.2	745.1	755.1	760.7	761.7



TEST NUMBER: P331299-927

CATALOG NUMBER: SA2XXDIP-C485D530U927-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	507.2	589.0	655.1	700.3	728.8	744.6	753.8	757.6
115°	469.4	543.0	606.0	655.3	688.8	711.1	724.2	729.8
117.5°	439.7	504.7	562.2	608.5	642.5	665.8	679.5	684.3
120°	424.1	483.9	535.4	579.1	612.2	634.9	649.4	655.4
122.5°	411.3	466.2	515.2	554.7	584.3	606.4	619.3	624.3
125°	392.2	442.4	485.6	521.9	549.3	567.6	580.1	584.9
127.5°	373.4	418.7	459.5	493.0	517.0	534.2	545.2	549.2
130°	361.3	403.3	442.2	474.1	497.3	513.7	523.8	528.5
132.5°	349.6	388.6	424.5	454.5	477.4	493.8	503.1	507.4
135°	333.3	365.8	398.4	425.6	446.1	462.0	471.2	474.1
137.5°	319.5	346.8	372.9	396.6	415.2	429.0	437.0	440.6
140°	310.8	334.5	357.4	378.8	394.0	406.5	414.2	417.6
142.5°	304.0	324.1	343.6	361.5	375.9	387.2	394.0	395.1
145°	294.8	310.5	325.3	339.1	350.6	358.9	364.1	366.1
147.5°	287.9	299.8	310.8	320.6	329.9	336.3	339.7	340.8
150°	283.7	293.7	303.2	311.2	318.1	323.4	326.1	326.6
152.5°	279.7	289.0	297.0	304.0	309.3	314.1	316.1	316.2
155°	274.3	281.5	288.2	293.2	298.2	301.3	303.2	302.2
157.5°	267.8	273.9	279.6	283.4	286.9	289.6	290.4	290.4
160°	263.8	268.8	273.8	276.9	280.1	282.3	282.8	282.8
162.5°	259.8	264.1	268.4	270.8	273.9	275.5	275.9	275.6
165°	253.9	257.1	260.2	262.1	263.8	265.6	265.6	265.2
167.5°	248.2	250.6	252.8	254.4	255.2	256.3	256.2	255.6
170°	245.3	246.7	248.5	249.4	249.9	251.2	250.7	249.9
172.5°	242.1	243.0	244.5	245.0	245.5	246.1	245.7	245.1
175°	238.5	239.0	239.5	239.9	239.9	240.3	239.9	239.0
177.5°	236.0	236.0	236.4	236.4	236.4	236.4	236.0	235.3
180°	234.9	234.9	234.9	234.9	234.9	234.9	234.9	234.9

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