

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: P331298-930

Luminaire Tested: **S122DIP-S485D530U930-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331298-930
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-8,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122DIP-S485D530U930-4F0-1E-UDD-D1
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 485 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 530 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3145.6 lumens
Efficiency: N/A
Efficacy: 95.9 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

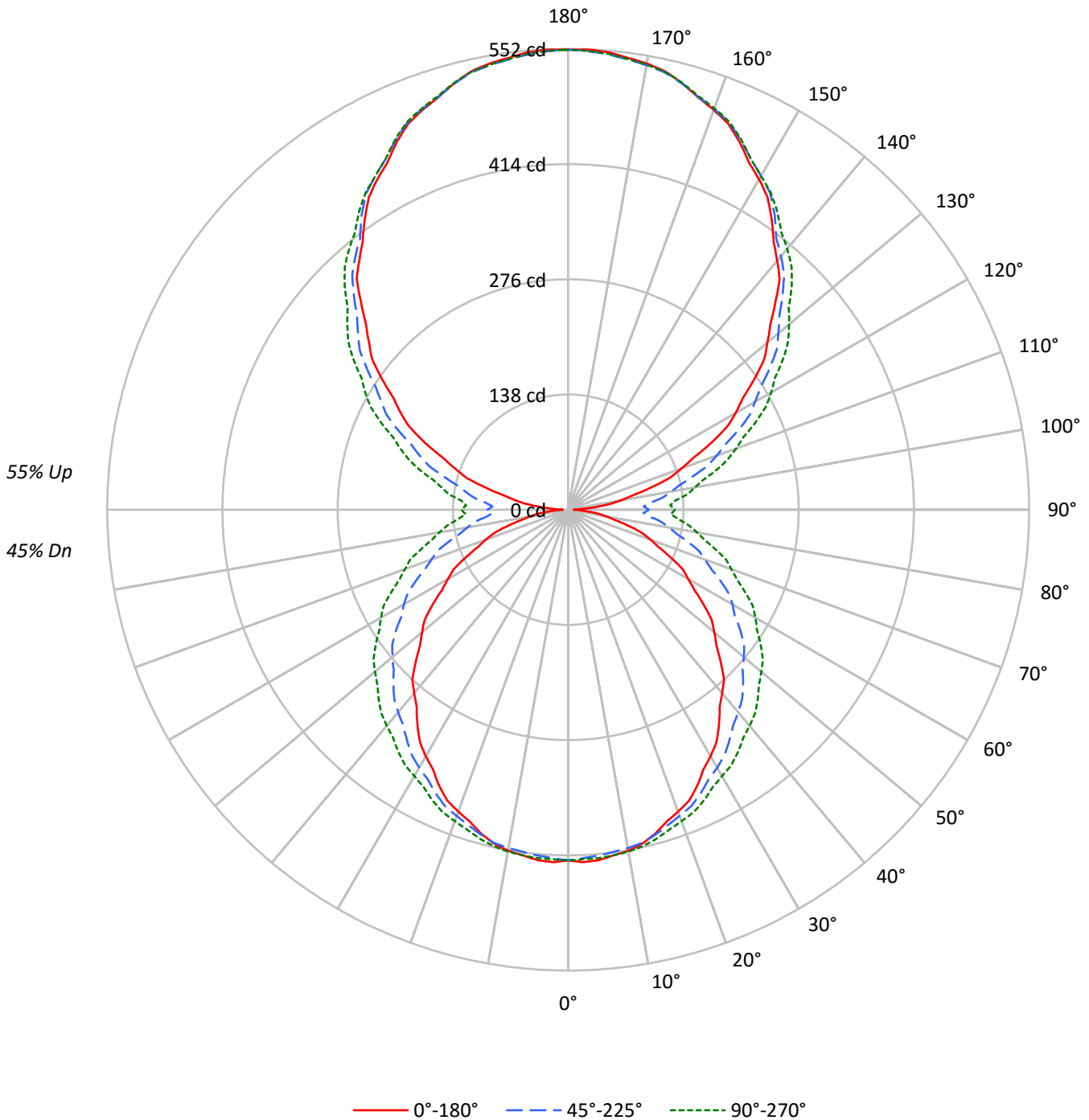
Input Watts (W): 32.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	0	
RCR																						
0	106	106	106	106	97	97	97	97	81	81	81	66	66	66	52	52	52	45				
1	95	90	86	82	87	83	79	76	69	66	63	56	54	52	44	42	41	35				
2	86	78	72	66	79	72	66	61	59	55	51	48	45	42	38	35	33	29				
3	78	68	60	54	71	63	56	50	52	47	43	42	38	35	33	30	28	24				
4	71	60	52	45	65	55	48	42	46	40	36	37	33	30	29	26	24	20				
5	65	53	45	39	60	49	42	36	41	35	31	33	29	25	26	23	20	17				
6	60	48	39	33	55	44	36	31	37	31	27	30	25	22	24	20	18	15				
7	56	43	35	29	51	40	32	27	33	27	23	27	23	19	21	18	16	13				
8	51	39	31	25	47	36	29	24	30	24	20	25	20	17	20	16	14	11				
9	48	35	28	23	44	33	26	21	28	22	18	23	18	15	18	15	13	10				
10	45	32	25	20	41	30	23	19	25	20	16	21	17	14	17	14	11	9				

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



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.8	1.3
10°-20°	114.2	3.6
20°-30°	173.0	5.5
30°-40°	210.7	6.7
40°-50°	226.7	7.2
50°-60°	220.1	7.0
60°-70°	192.2	6.1
70°-80°	148.0	4.7
80°-90°	101.5	3.2
90°-100°	103.3	3.3
100°-110°	158.4	5.0
110°-120°	218.3	6.9
120°-130°	262.1	8.3
130°-140°	281.3	8.9
140°-150°	269.6	8.6
150°-160°	225.0	7.2
160°-170°	149.2	4.7
170°-180°	52.2	1.7
0°-30°	327.0	10.4
0°-40°	537.7	17.1
0°-60°	984.5	31.3
0°-90°	1426.2	45.3
90°-120°	480.0	15.3
90°-150°	1293.0	41.1
90°-180°	1719.0	54.6
0°-180°	3145.6	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°	6	48	97	119	128	5
95°	29	62	100	122	129	32
105°	103	123	155	176	184	109
115°	188	199	224	241	247	186
125°	272	277	294	309	314	243
135°	351	356	363	375	379	271
145°	425	428	431	435	436	265
155°	486	487	489	491	490	224
165°	529	528	528	531	529	149
175°	550	549	548	551	548	52
180°	551	551	551	551	551	



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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	20.3	28.6	36.9	45.2	54.0	63.1	72.2	81.4	90.4	96.0
90°	6.5	15.7	24.7	33.8	42.9	52.9	63.8	74.8	85.7	96.6	101.8
92.5°	13.9	22.1	30.3	38.6	46.7	55.3	64.2	73.1	81.9	90.7	96.1
95°	29.0	36.4	43.9	51.2	58.6	66.4	74.8	83.2	91.5	99.8	104.9
97.5°	48.4	55.0	61.6	68.2	74.7	82.1	90.3	98.4	106.6	114.8	119.8
100°	63.3	69.1	75.0	80.8	86.7	93.5	101.4	109.3	117.2	125.1	130.0
102.5°	78.4	83.6	88.9	94.2	99.4	105.9	113.7	121.4	129.1	136.9	141.9
105°	103.0	107.2	111.5	115.7	119.9	125.6	132.9	140.1	147.4	154.7	159.6
107.5°	128.3	131.9	135.6	139.2	142.8	147.9	154.7	161.3	168.1	174.9	179.4
110°	144.2	147.6	150.9	154.3	157.5	162.5	169.2	175.8	182.4	189.1	193.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	162.1	165.0	167.9	170.8	173.7	178.2	184.4	190.7	196.9	203.1	207.2
115°	188.4	190.5	192.7	194.7	196.8	200.8	206.7	212.6	218.5	224.4	228.3
117.5°	214.0	215.8	217.6	219.4	221.2	224.6	229.7	234.7	239.8	244.8	248.6
120°	231.5	232.8	234.2	235.6	237.0	239.9	244.5	249.2	253.7	258.3	262.0
122.5°	247.5	248.7	249.9	251.1	252.3	255.2	259.7	264.2	268.7	273.2	276.6
125°	271.8	272.7	273.7	274.6	275.5	278.0	282.0	286.0	290.1	294.1	297.4
127.5°	296.0	297.1	298.2	299.2	300.3	302.3	305.4	308.6	311.7	314.8	317.8
130°	311.3	312.5	313.7	315.0	316.2	318.0	320.7	323.3	326.0	328.6	331.7
132.5°	328.4	329.4	330.4	331.3	332.2	333.9	336.1	338.3	340.6	342.8	345.4
135°	350.7	351.8	352.9	354.1	355.2	356.6	358.2	359.7	361.3	362.8	365.6
137.5°	374.8	375.7	376.6	377.5	378.4	379.3	380.2	381.0	381.9	382.7	385.1
140°	389.3	390.0	390.9	391.7	392.5	393.2	394.0	394.8	395.6	396.4	398.6
142.5°	404.1	405.0	405.8	406.5	407.3	408.0	408.4	408.7	409.1	409.5	411.4
145°	424.9	425.7	426.4	427.1	427.9	428.5	429.1	429.7	430.4	431.0	431.9
147.5°	444.0	444.8	445.7	446.6	447.4	448.1	448.5	448.9	449.3	449.8	450.1
150°	457.1	457.6	458.3	458.9	459.5	460.0	460.4	460.8	461.2	461.7	461.9
152.5°	468.6	469.2	469.8	470.4	471.0	471.6	472.1	472.5	473.0	473.6	473.9
155°	485.8	486.2	486.5	486.7	487.1	487.4	487.7	488.0	488.3	488.6	489.2
157.5°	500.6	500.8	501.0	501.2	501.5	501.7	501.8	502.1	502.2	502.4	503.1
160°	509.6	509.7	510.0	510.1	510.4	510.5	510.6	510.7	510.9	510.9	511.6
162.5°	517.7	517.8	517.8	517.9	517.9	518.0	518.0	518.2	518.3	518.4	519.1
165°	528.6	528.5	528.4	528.3	528.2	528.2	528.2	528.2	528.2	528.2	528.9
167.5°	537.7	537.4	537.1	536.8	536.5	536.3	536.3	536.3	536.2	536.2	537.0
170°	542.6	542.3	541.9	541.6	541.4	541.1	541.0	540.9	540.8	540.7	541.4
172.5°	545.9	545.6	545.3	544.9	544.7	544.5	544.4	544.3	544.1	544.0	544.8
175°	550.0	549.7	549.3	549.1	548.8	548.5	548.3	548.1	547.9	547.6	548.4
177.5°	551.7	551.4	551.1	550.9	550.7	550.5	550.3	550.2	550.0	549.8	550.3
180°	550.9	550.9	550.9	550.9	550.9	550.9	550.9	550.9	550.9	550.9	550.9



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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°	101.4	106.9	112.3	116.0	117.7	119.5	121.2	123.0
90°	107.0	112.3	117.5	120.9	122.7	124.4	126.1	127.8
92.5°	101.5	106.8	112.2	115.7	117.3	119.0	120.6	122.2
95°	110.1	115.2	120.3	123.6	125.1	126.5	127.8	129.3
97.5°	124.8	129.8	134.9	138.1	139.7	141.3	142.8	144.5
100°	135.1	140.1	145.0	148.3	149.7	151.1	152.5	153.8
102.5°	146.8	151.8	156.8	160.0	161.3	162.7	164.1	165.5
105°	164.5	169.5	174.4	177.7	179.1	180.6	182.1	183.6
107.5°	184.1	188.7	193.4	196.2	197.2	198.2	199.3	200.2
110°	197.7	202.0	206.4	209.1	210.3	211.5	212.6	213.9



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CATALOG NUMBER: S122DIP-S485D530U930-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	211.2	215.3	219.5	222.1	223.4	224.6	225.9	227.1
115°	232.3	236.2	240.2	242.7	243.9	245.1	246.3	247.4
117.5°	252.3	256.1	259.8	262.3	263.3	264.4	265.5	266.6
120°	265.9	269.6	273.5	275.9	277.1	278.3	279.5	280.6
122.5°	280.1	283.5	287.0	289.2	290.2	291.3	292.3	293.3
125°	300.8	304.1	307.4	309.7	310.8	311.9	313.0	314.1
127.5°	320.7	323.8	326.8	328.6	329.5	330.4	331.3	332.1
130°	334.7	337.7	340.8	342.7	343.3	344.0	344.6	345.3
132.5°	348.1	350.8	353.5	355.2	356.0	356.8	357.5	358.2
135°	368.3	371.0	373.8	375.5	376.3	377.1	377.9	378.6
137.5°	387.5	390.0	392.3	393.8	394.3	394.8	395.3	395.8
140°	400.7	402.9	405.0	406.3	406.8	407.2	407.6	408.0
142.5°	413.2	415.0	416.8	417.8	418.2	418.4	418.7	419.1
145°	432.8	433.7	434.6	435.2	435.5	435.8	436.0	436.3
147.5°	450.5	450.8	451.1	451.3	451.2	451.1	451.0	450.9
150°	462.3	462.6	462.9	462.9	462.6	462.3	461.9	461.7
152.5°	474.3	474.7	475.2	475.2	474.7	474.3	473.9	473.6
155°	489.7	490.2	490.7	490.8	490.5	490.2	489.8	489.6
157.5°	503.8	504.5	505.2	505.3	504.8	504.3	503.9	503.3
160°	512.2	512.8	513.4	513.6	513.1	512.7	512.3	511.8
162.5°	519.8	520.5	521.2	521.3	520.8	520.3	519.8	519.3
165°	529.6	530.4	531.0	531.2	530.6	530.1	529.6	529.0
167.5°	537.7	538.4	539.2	539.2	538.7	538.2	537.6	537.0
170°	542.2	542.9	543.6	543.6	543.0	542.4	541.8	541.2
172.5°	545.5	546.3	546.9	547.0	546.4	545.8	545.1	544.5
175°	549.1	549.8	550.6	550.7	550.0	549.3	548.8	548.1
177.5°	550.8	551.3	551.8	551.8	551.3	550.8	550.3	549.8
180°	550.9	550.9	550.9	550.9	550.9	550.9	550.9	550.9

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