

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: P331306-927

Luminaire Tested: **S122DIP-S485D725U927-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P331306-927  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-2,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S122DIP-S485D725U927-4F0-1E-UDD-D  
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 485 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 725 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3854.4 lumens  
Efficiency: N/A  
Efficacy: 100.4 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

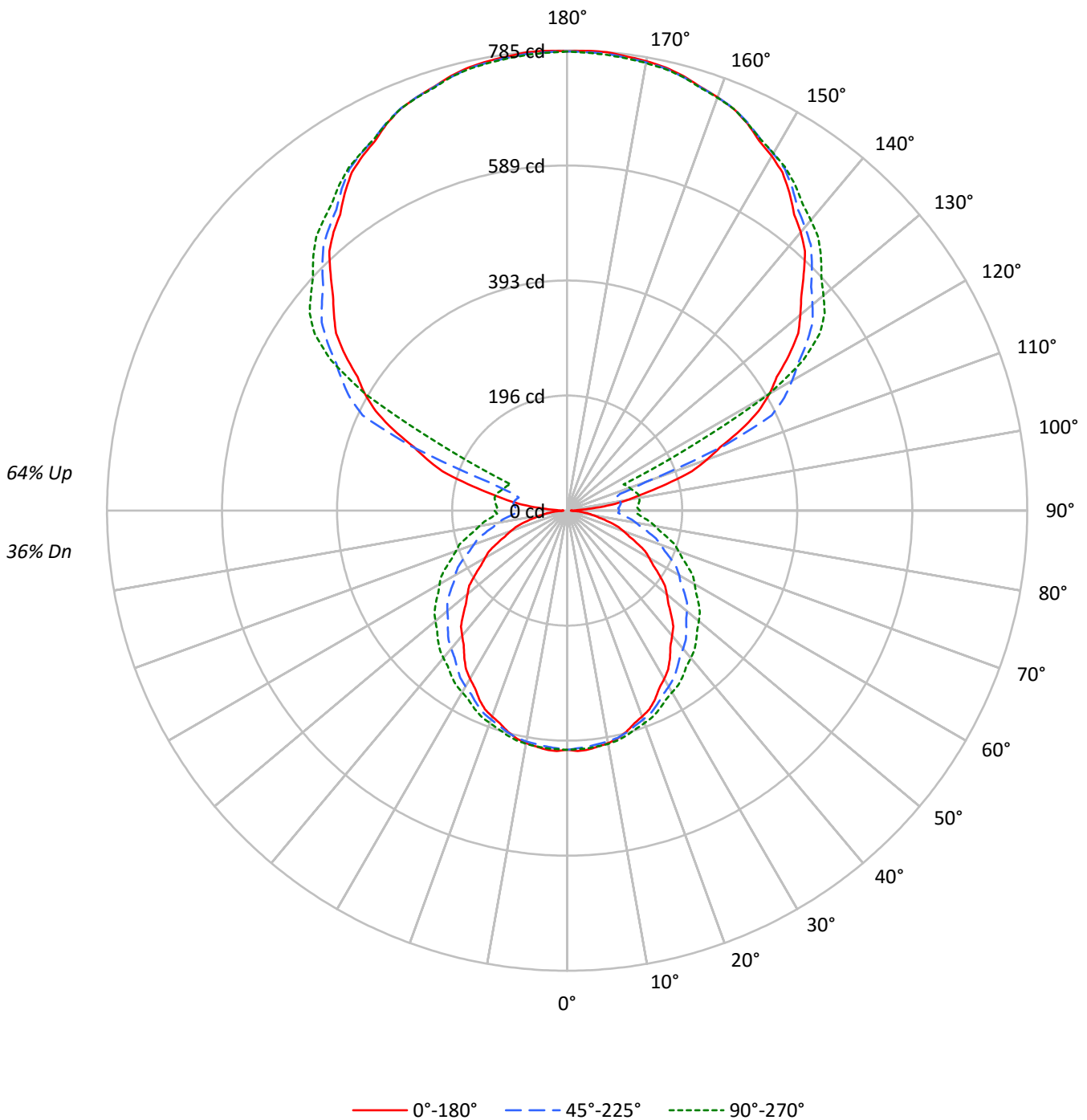
Input Watts (W): 38.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P331306-927

CATALOG NUMBER: S122DIP-S485D725U927-4F0-1E-UDD-D

### Luminous Intensity Polar Plot





TEST NUMBER: P331306-927

CATALOG NUMBER: S122DIP-S485D725U927-4F0-1E-UDD-D

**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	104	104	104	104	94	94	94	94	76	76	76	59	59	59	43	43	43	36
1	94	89	85	81	84	80	77	74	64	62	60	50	48	47	36	35	34	28
2	85	77	70	65	76	70	64	59	56	52	48	43	40	38	31	30	28	23
3	77	67	60	54	69	61	54	49	49	44	40	38	34	32	27	25	23	19
4	70	59	51	45	63	54	47	41	43	38	34	33	30	27	24	22	20	16
5	64	52	44	38	58	48	40	35	38	33	29	30	26	23	22	19	17	13
6	59	47	39	33	53	43	35	30	34	29	25	27	23	20	20	17	15	12
7	54	42	34	29	49	38	31	26	31	26	22	24	20	17	18	15	13	10
8	50	38	30	25	45	35	28	23	28	23	19	22	18	15	16	14	12	9
9	47	35	27	22	42	32	25	20	26	21	17	20	16	14	15	12	10	8
10	44	32	24	20	39	29	22	18	24	19	15	19	15	12	14	11	9	7

**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



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	38.7	1.0
10°-20°	110.9	2.9
20°-30°	168.1	4.4
30°-40°	204.7	5.3
40°-50°	220.3	5.7
50°-60°	213.9	5.5
60°-70°	186.8	4.8
70°-80°	143.8	3.7
80°-90°	98.4	2.6
90°-100°	92.6	2.4
100°-110°	144.3	3.7
110°-120°	288.1	7.5
120°-130°	440.6	11.4
130°-140°	457.1	11.9
140°-150°	419.1	10.9
150°-160°	335.9	8.7
160°-170°	216.5	5.6
170°-180°	74.5	1.9
0°-30°	317.7	8.2
0°-40°	522.4	13.6
0°-60°	956.6	24.8
0°-90°	1385.6	35.9
90°-120°	525.1	13.6
90°-150°	1841.9	47.8
90°-180°	2469.0	64.1
0°-180°	3854.4	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	47	89	115	124	6
95°	42	52	90	114	122	49
105°	175	201	86	111	121	187
115°	328	346	385	152	106	323
125°	462	470	499	518	526	412
135°	571	580	591	608	612	441
145°	661	661	670	678	678	414
155°	728	724	730	733	729	335
165°	767	764	766	769	766	217
175°	785	781	782	785	780	75
180°	783	783	783	783	783	



TEST NUMBER: P331306-927

CATALOG NUMBER: S122DIP-S485D725U927-4F0-1E-UDD-D

**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	44.1	52.5	61.2	69.8	78.3	87.0	92.4
90°	6.5	15.5	24.5	33.5	42.5	51.7	61.2	70.6	80.0	89.4	95.3
92.5°	16.9	23.8	30.8	37.8	44.8	52.6	61.2	69.8	78.3	87.0	92.4
95°	41.6	43.6	45.6	47.6	49.7	55.1	63.8	72.6	81.4	90.2	95.8
97.5°	77.2	71.1	64.8	58.6	52.4	54.1	63.7	73.3	82.9	92.5	97.9
100°	104.4	92.1	79.7	67.3	54.9	53.5	63.0	72.5	82.0	91.5	97.4
102.5°	133.9	134.7	135.5	136.3	137.0	132.1	121.3	110.6	99.8	89.0	95.1
105°	175.2	182.8	190.4	198.0	205.6	195.6	168.1	140.5	113.0	85.5	91.4
107.5°	223.1	229.2	235.3	241.4	247.5	233.1	198.4	163.8	129.1	94.4	97.4
110°	253.4	258.6	264.0	269.3	274.5	262.1	232.2	202.2	172.3	142.4	134.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	282.4	287.0	291.5	296.0	300.6	301.4	298.6	295.7	292.9	290.0	248.3
115°	328.2	331.8	335.4	339.0	342.5	348.9	357.9	367.0	376.0	385.2	330.7
117.5°	368.5	371.9	375.2	378.6	381.9	387.4	395.0	402.7	410.3	417.9	407.7
120°	398.5	400.8	403.3	405.7	408.1	413.0	420.6	428.1	435.6	443.1	448.4
122.5°	423.8	426.0	428.3	430.5	432.6	437.4	444.9	452.3	459.7	467.1	471.6
125°	461.9	463.5	465.2	466.8	468.4	472.5	479.2	485.8	492.3	498.9	503.4
127.5°	496.9	498.6	500.3	501.9	503.7	507.1	512.2	517.5	522.6	527.8	532.3
130°	519.1	521.0	522.9	524.7	526.6	529.7	533.9	538.0	542.1	546.3	550.8
132.5°	541.8	543.4	544.9	546.5	548.1	550.6	554.2	557.7	561.2	564.7	568.9
135°	570.7	572.7	574.7	576.7	578.7	581.0	583.4	585.8	588.3	590.7	594.8
137.5°	600.5	601.8	603.2	604.6	606.0	607.6	609.5	611.3	613.2	615.1	618.8
140°	620.0	620.8	621.7	622.6	623.4	624.7	626.4	628.0	629.7	631.3	634.5
142.5°	636.3	637.1	637.9	638.6	639.4	640.6	642.2	643.9	645.5	647.1	649.9
145°	661.3	661.2	661.1	660.9	660.8	661.8	663.9	666.1	668.2	670.3	672.0
147.5°	683.7	683.2	682.7	682.2	681.8	682.5	684.7	686.7	688.9	691.0	691.7
150°	698.2	697.3	696.4	695.5	694.6	695.2	697.2	699.2	701.2	703.2	704.0
152.5°	710.3	709.4	708.4	707.4	706.5	706.9	708.8	710.7	712.6	714.5	715.3
155°	728.2	727.1	725.9	724.8	723.7	723.8	725.3	726.8	728.3	729.8	730.6
157.5°	742.1	741.2	740.2	739.3	738.3	738.3	739.4	740.5	741.5	742.6	743.5
160°	750.3	749.5	748.8	748.0	747.3	747.3	748.0	748.8	749.5	750.3	751.1
162.5°	757.6	756.8	756.1	755.3	754.5	754.5	755.1	755.7	756.5	757.1	758.0
165°	767.3	766.5	765.8	765.0	764.2	764.1	764.5	764.9	765.2	765.6	766.4
167.5°	774.5	773.8	773.0	772.3	771.5	771.3	771.7	772.0	772.4	772.7	773.6
170°	778.6	777.8	777.1	776.3	775.6	775.3	775.6	775.9	776.1	776.3	777.2
172.5°	781.3	780.5	779.8	779.0	778.3	778.1	778.3	778.6	778.8	779.0	780.0
175°	784.8	783.9	783.1	782.2	781.3	781.0	781.3	781.5	781.7	782.0	782.9
177.5°	785.4	784.7	784.0	783.3	782.6	782.3	782.4	782.5	782.6	782.7	783.4
180°	783.2	783.2	783.2	783.2	783.2	783.2	783.2	783.2	783.2	783.2	783.2



TEST NUMBER: P331306-927

CATALOG NUMBER: S122DIP-S485D725U927-4F0-1E-UDD-D

**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°	98.0	103.5	108.9	112.6	114.3	116.1	117.8	119.5
90°	101.2	107.1	113.0	116.8	118.7	120.5	122.3	124.1
92.5°	97.9	103.5	108.9	112.5	114.2	116.0	117.7	119.5
95°	101.4	107.0	112.6	116.2	117.6	119.1	120.6	122.0
97.5°	103.3	108.6	114.0	117.6	119.2	121.0	122.6	124.4
100°	103.2	109.1	114.9	118.7	120.4	122.2	123.8	125.6
102.5°	101.2	107.3	113.4	117.2	119.1	120.9	122.6	124.5
105°	97.4	103.4	109.4	113.4	115.3	117.2	119.2	121.1
107.5°	100.4	103.5	106.5	108.9	110.9	112.8	114.8	116.8
110°	125.6	117.2	108.8	105.6	107.6	109.5	111.5	113.4





TEST NUMBER: P331306-927

CATALOG NUMBER: S122DIP-S485D725U927-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	206.5	164.8	123.1	103.1	105.0	106.9	108.7	110.5
115°	276.4	222.0	167.7	136.7	129.0	121.4	113.8	106.2
117.5°	397.5	387.3	377.1	357.7	329.3	300.8	272.4	243.9
120°	453.5	458.8	464.0	458.8	443.2	427.7	412.1	396.6
122.5°	476.0	480.5	485.1	486.2	484.2	482.1	480.1	478.0
125°	507.8	512.2	516.7	519.7	521.3	522.8	524.3	525.9
127.5°	536.9	541.5	546.0	548.8	550.1	551.4	552.5	553.8
130°	555.3	559.9	564.4	567.1	568.1	569.0	569.9	570.8
132.5°	573.2	577.4	581.6	584.2	585.2	586.1	587.0	588.0
135°	598.8	602.8	606.8	609.3	610.1	610.9	611.6	612.4
137.5°	622.4	626.1	629.7	631.8	632.2	632.7	633.2	633.6
140°	637.8	641.0	644.3	645.9	646.1	646.3	646.4	646.6
142.5°	652.6	655.3	658.0	659.4	659.5	659.5	659.6	659.7
145°	673.8	675.4	677.1	677.9	677.9	677.9	678.0	678.0
147.5°	692.5	693.3	694.0	694.3	694.1	693.9	693.7	693.5
150°	704.7	705.5	706.2	706.3	705.7	705.0	704.4	703.8
152.5°	716.1	716.8	717.6	717.6	716.8	715.9	715.1	714.2
155°	731.4	732.1	732.9	732.8	731.7	730.8	729.8	728.7
157.5°	744.3	745.1	746.0	745.9	745.0	743.9	743.0	742.0
160°	751.8	752.6	753.3	753.2	752.3	751.5	750.6	749.7
162.5°	758.8	759.6	760.5	760.4	759.3	758.2	757.2	756.1
165°	767.3	768.3	769.1	769.1	768.3	767.3	766.4	765.6
167.5°	774.5	775.4	776.3	776.1	775.0	773.9	772.7	771.6
170°	778.1	779.0	779.9	779.7	778.6	777.4	776.3	775.2
172.5°	780.9	781.7	782.6	782.4	781.3	780.2	779.0	777.9
175°	783.8	784.7	785.5	785.4	784.1	782.8	781.6	780.3
177.5°	784.1	784.8	785.5	785.4	784.5	783.6	782.7	781.8
180°	783.2	783.2	783.2	783.2	783.2	783.2	783.2	783.2

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