

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: P331397-940

Luminaire Tested: **S122DIP-S865D725U940-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P331397-940  
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-S865D725U940-4F0-1E-UDD-D1  
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 865 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 725 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

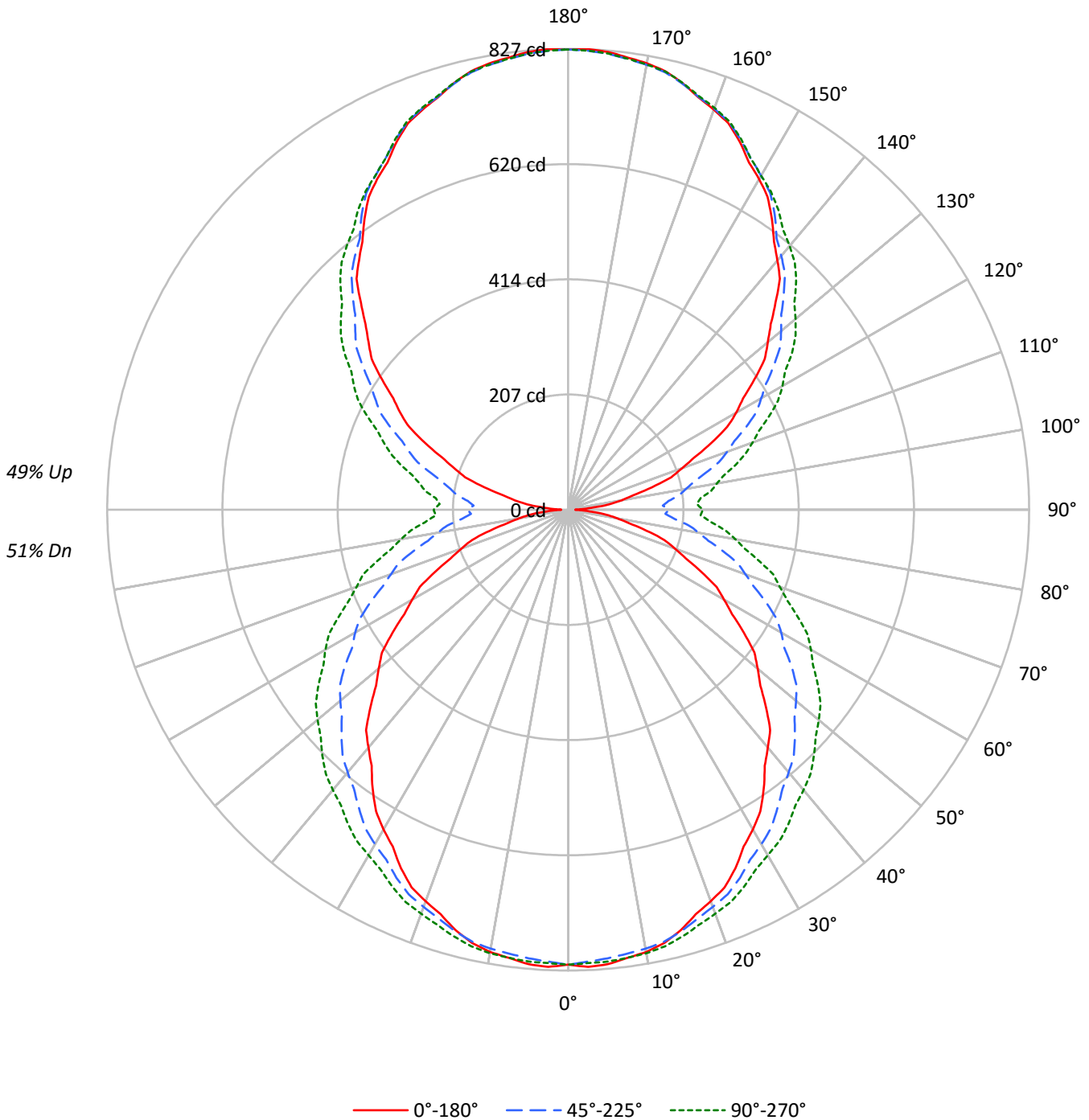
Lumens per Lamp: N/A  
Luminaire Lumens: 5427.6 lumens  
Efficiency: N/A  
Efficacy: 99.8 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.32 / 1.42  
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 4' x H: 0.08')  
CIE Type: General Diffuse  
  
Input Watts (W): 54.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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: P331397-940

CATALOG NUMBER: S122DIP-S865D725U940-4F0-1E-UDD-D1

### Luminous Intensity Polar Plot





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CATALOG NUMBER: S122DIP-S865D725U940-4F0-1E-UDD-D1

**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	107	107	107	107	99	99	99	99	84	84	84	70	70	70	57	57	57	51
1	96	91	87	83	89	84	81	77	71	68	66	59	57	55	48	47	45	40
2	87	79	72	67	80	73	67	62	62	57	53	51	48	45	41	39	37	32
3	79	69	61	55	73	64	57	51	54	48	44	45	41	37	36	33	31	27
4	72	61	52	46	66	56	49	43	47	42	37	39	35	31	32	29	26	22
5	66	54	45	39	61	50	42	36	42	36	32	35	31	27	29	25	22	19
6	61	48	40	34	56	45	37	31	38	32	27	32	27	23	26	22	20	17
7	56	43	35	29	52	40	33	27	34	28	24	29	24	21	24	20	17	15
8	52	39	31	26	48	37	29	24	31	25	21	26	22	18	22	18	15	13
9	48	36	28	23	45	33	26	22	29	23	19	24	20	16	20	16	14	12
10	45	33	25	20	42	31	24	19	26	21	17	22	18	15	18	15	12	10

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

	0°	45°	90°
0°	13183	13183	13183
5°	13247	12690	12640
10°	13163	12315	12177
15°	12982	11917	11686
20°	12752	11492	11215
25°	12527	11082	10786
30°	12206	10661	10357
35°	11884	10253	10054
40°	11544	9907	9750
45°	11222	9597	9493
50°	10875	9317	9238
55°	10513	9015	8977
60°	10070	8702	8703
65°	9607	8336	8376
70°	9087	7940	8025
75°	8422	7553	7701
80°	7376	7159	7372
85°	6374	6817	7118



TEST NUMBER: P331397-940

CATALOG NUMBER: S122DIP-S865D725U940-4F0-1E-UDD-D1

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	77.4	1.4
10°-20°	221.8	4.1
20°-30°	336.2	6.2
30°-40°	409.5	7.5
40°-50°	440.5	8.1
50°-60°	427.8	7.9
60°-70°	373.5	6.9
70°-80°	287.6	5.3
80°-90°	196.3	3.6
90°-100°	185.3	3.4
100°-110°	259.6	4.8
110°-120°	342.0	6.3
120°-130°	401.2	7.4
130°-140°	425.1	7.8
140°-150°	404.7	7.5
150°-160°	337.3	6.2
160°-170°	223.7	4.1
170°-180°	78.2	1.4
0°-30°	635.4	11.7
0°-40°	1044.8	19.3
0°-60°	1913.1	35.2
0°-90°	2770.5	51.0
90°-120°	786.9	14.5
90°-150°	2017.9	37.2
90°-180°	2657.0	49.0
0°-180°	5427.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	816	816	816	816	816	
5°	819	815	808	815	814	78
15°	781	783	783	793	793	220
25°	710	718	729	742	747	326
35°	612	632	654	679	689	382
45°	502	534	575	610	624	387
55°	385	428	489	530	547	344
65°	263	321	390	437	454	261
75°	146	212	288	336	354	154
85°	43	116	192	240	258	46
90°	13	90	181	225	241	10
95°	46	109	181	224	238	49
105°	156	194	255	296	311	165
115°	284	303	353	386	398	280
125°	408	416	450	479	490	365
135°	526	534	547	570	578	407
145°	637	642	646	654	657	398
155°	728	730	732	736	734	335
165°	792	792	792	796	793	223
175°	825	822	821	825	822	78
180°	826	826	826	826	826	



TEST NUMBER: P331397-940

CATALOG NUMBER: S122DIP-S865D725U940-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	816.5	816.5	816.5	816.5	816.5	816.5	816.5	816.5	816.5	816.5	816.5
2.5°	821.2	820.6	819.9	819.3	818.7	817.6	816.1	814.7	813.2	811.7	812.8
5°	818.8	818.1	817.3	816.5	815.6	814.5	812.9	811.3	809.8	808.2	809.8
7.5°	811.5	810.9	810.4	809.9	809.4	808.5	807.3	806.1	804.9	803.7	805.6
10°	805.8	805.3	804.8	804.2	803.7	803.1	802.3	801.5	800.7	799.9	802.0
12.5°	796.3	796.5	796.6	796.7	796.7	796.5	795.9	795.3	794.8	794.2	796.3
15°	781.0	781.5	782.0	782.6	783.0	783.3	783.3	783.3	783.3	783.3	785.7
17.5°	761.1	762.1	763.3	764.4	765.4	766.4	767.3	768.1	769.0	769.8	772.3
20°	747.8	749.1	750.5	751.8	753.0	754.3	755.3	756.3	757.4	758.5	761.3
22.5°	733.6	735.1	736.6	738.2	739.7	741.2	742.7	744.1	745.6	747.1	750.0
25°	710.0	711.8	713.6	715.5	717.3	719.4	721.8	724.2	726.5	728.9	732.0
27.5°	681.5	684.6	687.5	690.5	693.6	696.4	699.2	702.0	704.8	707.6	711.6
30°	662.6	666.0	669.5	672.9	676.3	679.8	683.1	686.5	690.0	693.4	697.6
32.5°	641.8	645.6	649.4	653.4	657.2	661.1	665.1	669.2	673.2	677.3	682.2
35°	611.7	616.2	620.7	625.2	629.6	634.4	639.4	644.4	649.3	654.3	660.1
37.5°	579.1	584.2	589.4	594.5	599.7	605.5	612.0	618.5	624.9	631.4	637.8
40°	557.3	563.1	568.9	574.7	580.4	586.9	594.0	601.1	608.2	615.3	622.1
42.5°	536.5	542.2	548.0	553.8	559.6	566.6	574.7	582.9	591.0	599.2	606.6
45°	501.7	508.8	515.9	523.0	530.1	538.2	547.4	556.7	565.9	575.1	583.2
47.5°	467.3	475.1	482.9	490.6	498.3	507.6	518.4	529.1	539.9	550.7	559.2
50°	443.7	451.8	460.0	468.1	476.4	486.3	498.1	510.0	521.8	533.7	542.6
52.5°	421.0	429.5	438.2	446.7	455.3	465.8	478.3	490.7	503.2	515.7	524.8
55°	384.6	394.0	403.5	413.0	422.4	434.0	447.6	461.4	475.0	488.7	498.1
57.5°	348.6	359.3	370.0	380.6	391.3	403.6	417.5	431.5	445.4	459.3	469.6
60°	323.1	334.3	345.6	357.0	368.3	381.4	396.4	411.3	426.3	441.4	451.4
62.5°	300.3	312.0	323.8	335.5	347.2	360.6	375.6	390.6	405.6	420.5	431.1
65°	262.7	275.5	288.5	301.3	314.2	328.4	343.9	359.4	375.0	390.5	401.3
67.5°	228.1	241.6	255.0	268.5	282.0	296.7	312.5	328.4	344.3	360.2	371.0
70°	203.5	217.2	230.9	244.5	258.2	273.2	289.5	305.8	322.1	338.4	349.7
72.5°	180.8	194.9	209.0	223.1	237.2	252.4	269.0	285.5	302.0	318.5	329.7
75°	145.5	160.2	175.0	189.8	204.5	220.3	237.0	253.9	270.7	287.5	298.8
77.5°	111.5	126.9	142.3	157.7	173.1	189.3	206.4	223.6	240.6	257.7	268.9
80°	88.7	104.8	120.8	136.9	152.9	169.4	186.5	203.7	220.7	237.8	248.9
82.5°	69.8	85.6	101.5	117.3	133.1	149.7	167.0	184.3	201.6	218.9	230.0
85°	42.6	58.9	75.2	91.5	107.8	124.4	141.2	158.0	174.9	191.7	202.8
87.5°	23.4	39.4	55.4	71.4	87.5	104.2	121.8	139.3	156.9	174.3	185.0
90°	12.6	29.6	46.7	63.8	81.0	99.6	119.8	140.1	160.3	180.6	190.8
92.5°	23.3	38.9	54.4	70.0	85.5	101.8	118.9	135.8	152.8	169.9	180.2
95°	45.7	59.7	73.6	87.4	101.3	116.4	132.4	148.5	164.6	180.7	190.6
97.5°	74.5	86.9	99.2	111.6	123.9	137.9	153.7	169.4	185.1	200.9	210.6
100°	96.8	107.8	118.8	129.7	140.7	153.7	169.0	184.1	199.3	214.5	224.3
102.5°	119.3	129.1	139.0	148.9	158.8	171.2	186.1	201.0	215.9	230.8	240.4
105°	155.8	163.9	171.9	180.0	188.2	199.2	213.1	227.1	241.1	255.1	264.6
107.5°	193.8	200.5	207.3	214.1	220.9	230.8	243.9	257.0	270.1	283.2	292.1
110°	217.3	223.5	229.7	235.9	242.1	251.6	264.5	277.4	290.3	303.2	311.6



TEST NUMBER: P331397-940

CATALOG NUMBER: S122DIP-S865D725U940-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	244.1	249.4	254.8	260.1	265.5	274.2	286.3	298.5	310.6	322.7	330.7
115°	283.6	287.4	291.1	295.0	298.8	306.5	318.0	329.6	341.1	352.6	360.3
117.5°	321.6	324.8	327.9	331.1	334.2	340.8	350.9	361.0	371.0	381.1	388.5
120°	347.9	350.2	352.5	354.7	357.0	362.8	372.1	381.4	390.7	399.9	407.3
122.5°	371.8	373.7	375.7	377.6	379.5	385.0	394.0	403.0	412.0	421.0	427.8
125°	408.0	409.4	410.8	412.2	413.6	418.3	426.2	434.2	442.1	450.0	456.7
127.5°	444.4	445.9	447.4	448.9	450.4	454.2	460.5	466.7	473.0	479.2	485.2
130°	467.3	469.0	470.7	472.5	474.3	477.8	483.0	488.2	493.4	498.6	504.6
132.5°	492.9	494.3	495.7	497.0	498.5	501.3	505.6	509.9	514.2	518.5	524.0
135°	526.0	527.7	529.4	531.1	532.8	535.1	538.1	541.0	543.9	546.9	552.3
137.5°	562.1	563.5	564.8	566.1	567.5	568.9	570.5	572.0	573.6	575.2	579.9
140°	583.9	585.0	586.1	587.3	588.4	589.6	590.9	592.2	593.5	594.8	599.1
142.5°	606.2	607.3	608.4	609.6	610.7	611.6	612.2	612.9	613.5	614.1	617.6
145°	637.0	638.1	639.3	640.3	641.4	642.4	643.4	644.3	645.2	646.1	647.8
147.5°	665.7	666.9	668.2	669.5	670.8	671.8	672.4	673.1	673.7	674.3	674.8
150°	685.2	686.1	687.0	688.0	688.8	689.6	690.3	690.9	691.5	692.1	692.6
152.5°	702.4	703.4	704.3	705.3	706.1	706.9	707.8	708.5	709.2	710.0	710.5
155°	728.3	728.8	729.3	729.8	730.2	730.7	731.1	731.6	732.1	732.5	733.3
157.5°	750.6	750.8	751.2	751.4	751.8	752.1	752.3	752.6	752.9	753.1	754.2
160°	763.9	764.2	764.6	764.8	765.2	765.4	765.5	765.7	765.9	766.0	767.0
162.5°	776.1	776.2	776.3	776.3	776.4	776.5	776.7	776.9	777.0	777.1	778.2
165°	792.5	792.4	792.2	792.0	791.8	791.8	791.8	791.8	791.8	791.8	792.9
167.5°	806.1	805.7	805.2	804.8	804.3	804.1	804.1	804.0	804.0	803.9	805.0
170°	813.4	813.0	812.4	812.0	811.5	811.2	811.1	810.9	810.7	810.6	811.7
172.5°	818.4	818.0	817.5	817.0	816.5	816.3	816.1	815.9	815.8	815.6	816.7
175°	824.6	824.1	823.6	823.1	822.7	822.3	822.0	821.7	821.4	821.1	822.2
177.5°	827.1	826.7	826.3	825.9	825.5	825.3	825.0	824.7	824.5	824.3	825.0
180°	825.9	825.9	825.9	825.9	825.9	825.9	825.9	825.9	825.9	825.9	825.9



TEST NUMBER: P331397-940

CATALOG NUMBER: S122DIP-S865D725U940-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	816.5	816.5	816.5	816.5	816.5	816.5	816.5	816.5
2.5°	813.8	814.8	815.9	816.3	815.8	815.4	814.9	814.6
5°	811.3	812.9	814.5	815.1	814.8	814.6	814.3	814.0
7.5°	807.4	809.3	811.3	812.1	811.8	811.5	811.3	811.0
10°	804.1	806.2	808.3	809.2	809.0	808.7	808.4	808.2
12.5°	798.4	800.5	802.6	803.5	803.3	803.0	802.7	802.5
15°	788.0	790.4	792.8	793.8	793.5	793.3	793.0	792.8
17.5°	774.8	777.2	779.7	781.0	781.0	781.0	781.0	781.0
20°	764.3	767.1	770.0	771.5	771.5	771.5	771.5	771.5
22.5°	752.9	755.8	758.7	760.4	760.7	761.2	761.6	762.1
25°	735.2	738.3	741.5	743.5	744.2	745.0	745.8	746.6
27.5°	715.6	719.6	723.5	725.9	726.5	727.0	727.6	728.2
30°	701.8	706.0	710.2	712.7	713.5	714.3	715.1	715.9
32.5°	687.0	691.8	696.6	699.8	701.2	702.6	704.0	705.4
35°	665.9	671.7	677.5	681.3	683.1	685.0	686.8	688.7
37.5°	644.2	650.6	657.0	661.2	663.2	665.1	667.1	669.1
40°	628.9	635.8	642.7	647.2	649.6	651.9	654.3	656.7
42.5°	614.1	621.6	629.1	634.0	636.3	638.7	641.1	643.5
45°	591.4	599.5	607.7	613.1	615.7	618.3	621.0	623.6
47.5°	567.8	576.2	584.8	590.5	593.3	596.3	599.1	602.1
50°	551.5	560.4	569.4	575.3	578.2	581.1	584.0	586.9
52.5°	534.0	543.1	552.2	558.4	561.5	564.6	567.7	570.8
55°	507.7	517.1	526.6	533.0	536.4	539.8	543.2	546.6
57.5°	479.7	489.9	500.2	507.0	510.4	513.9	517.4	520.8
60°	461.4	471.4	481.3	488.1	491.9	495.5	499.2	502.9
62.5°	441.8	452.4	463.0	470.1	473.5	477.0	480.5	483.9
65°	412.1	422.8	433.6	440.7	444.1	447.5	450.9	454.3
67.5°	381.9	392.8	403.8	411.0	414.6	418.1	421.7	425.3
70°	361.1	372.3	383.6	390.8	394.0	397.2	400.4	403.5
72.5°	340.7	351.8	362.9	370.3	374.2	377.9	381.7	385.5
75°	310.1	321.5	332.8	340.1	343.6	347.0	350.4	353.8
77.5°	280.3	291.5	302.7	310.2	313.9	317.5	321.3	324.9
80°	259.9	271.0	282.0	289.4	293.0	296.8	300.4	304.1
82.5°	241.0	252.0	263.1	270.4	273.8	277.2	280.7	284.2
85°	213.7	224.8	235.9	243.3	246.9	250.6	254.2	258.0
87.5°	195.6	206.3	217.0	224.0	227.4	230.8	234.2	237.6
90°	201.0	211.2	221.4	228.2	231.5	234.8	238.1	241.4
92.5°	190.6	200.9	211.3	218.1	221.2	224.4	227.7	230.9
95°	200.6	210.6	220.6	227.0	229.9	232.7	235.6	238.4
97.5°	220.3	230.1	239.8	246.2	249.3	252.4	255.4	258.5
100°	234.0	243.7	253.4	259.7	262.4	265.1	267.9	270.6
102.5°	250.0	259.7	269.3	275.5	278.2	281.0	283.7	286.4
105°	274.1	283.7	293.2	299.3	302.3	305.1	308.0	310.9
107.5°	301.1	310.0	319.1	324.6	326.7	329.0	331.1	333.3
110°	319.9	328.4	336.8	342.2	344.6	347.1	349.5	352.0





TEST NUMBER: P331397-940

CATALOG NUMBER: S122DIP-S865D725U940-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	338.9	346.9	354.9	360.2	362.7	365.3	367.8	370.4
115°	368.0	375.8	383.5	388.6	391.0	393.4	395.9	398.3
117.5°	395.9	403.3	410.7	415.5	417.8	420.0	422.2	424.4
120°	414.6	422.0	429.4	434.3	436.7	439.2	441.6	444.0
122.5°	434.6	441.4	448.2	452.6	454.7	456.8	459.0	461.1
125°	463.3	469.9	476.6	481.0	483.2	485.4	487.7	489.9
127.5°	491.2	497.0	503.0	506.9	508.7	510.6	512.4	514.2
130°	510.6	516.6	522.6	526.4	527.8	529.3	530.8	532.3
132.5°	529.4	534.8	540.2	543.8	545.4	547.0	548.6	550.2
135°	557.7	563.0	568.4	571.9	573.5	575.2	576.8	578.5
137.5°	584.6	589.3	594.1	597.0	598.2	599.3	600.5	601.6
140°	603.2	607.4	611.6	614.2	615.2	616.2	617.1	618.0
142.5°	621.1	624.6	628.0	630.2	631.0	631.7	632.4	633.2
145°	649.6	651.3	653.1	654.2	655.0	655.7	656.4	657.0
147.5°	675.4	675.9	676.5	676.8	676.8	676.9	676.9	677.0
150°	693.0	693.5	694.0	694.0	693.5	693.0	692.6	692.1
152.5°	711.1	711.8	712.3	712.3	711.8	711.1	710.5	710.0
155°	734.1	734.9	735.7	735.8	735.3	734.9	734.4	734.0
157.5°	755.3	756.3	757.4	757.5	756.8	756.1	755.3	754.6
160°	767.9	768.8	769.7	769.9	769.3	768.7	768.0	767.4
162.5°	779.3	780.3	781.4	781.5	780.8	780.1	779.3	778.6
165°	794.0	795.0	796.1	796.3	795.5	794.7	794.0	793.2
167.5°	806.1	807.2	808.2	808.4	807.6	806.8	806.0	805.2
170°	812.8	813.9	814.9	815.0	814.1	813.2	812.3	811.3
172.5°	817.8	818.9	819.9	820.0	819.1	818.1	817.3	816.4
175°	823.2	824.3	825.4	825.5	824.6	823.6	822.7	821.8
177.5°	825.7	826.5	827.2	827.2	826.5	825.7	825.0	824.3
180°	825.9	825.9	825.9	825.9	825.9	825.9	825.9	825.9

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