

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: P331442-930

Luminaire Tested: **S122DIP-S1005D725U930-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P331442-930  
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-S1005D725U930-4F0-1E-UDD-D1  
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1005 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: 5403.7 lumens  
Efficiency: N/A  
Efficacy: 89.0 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

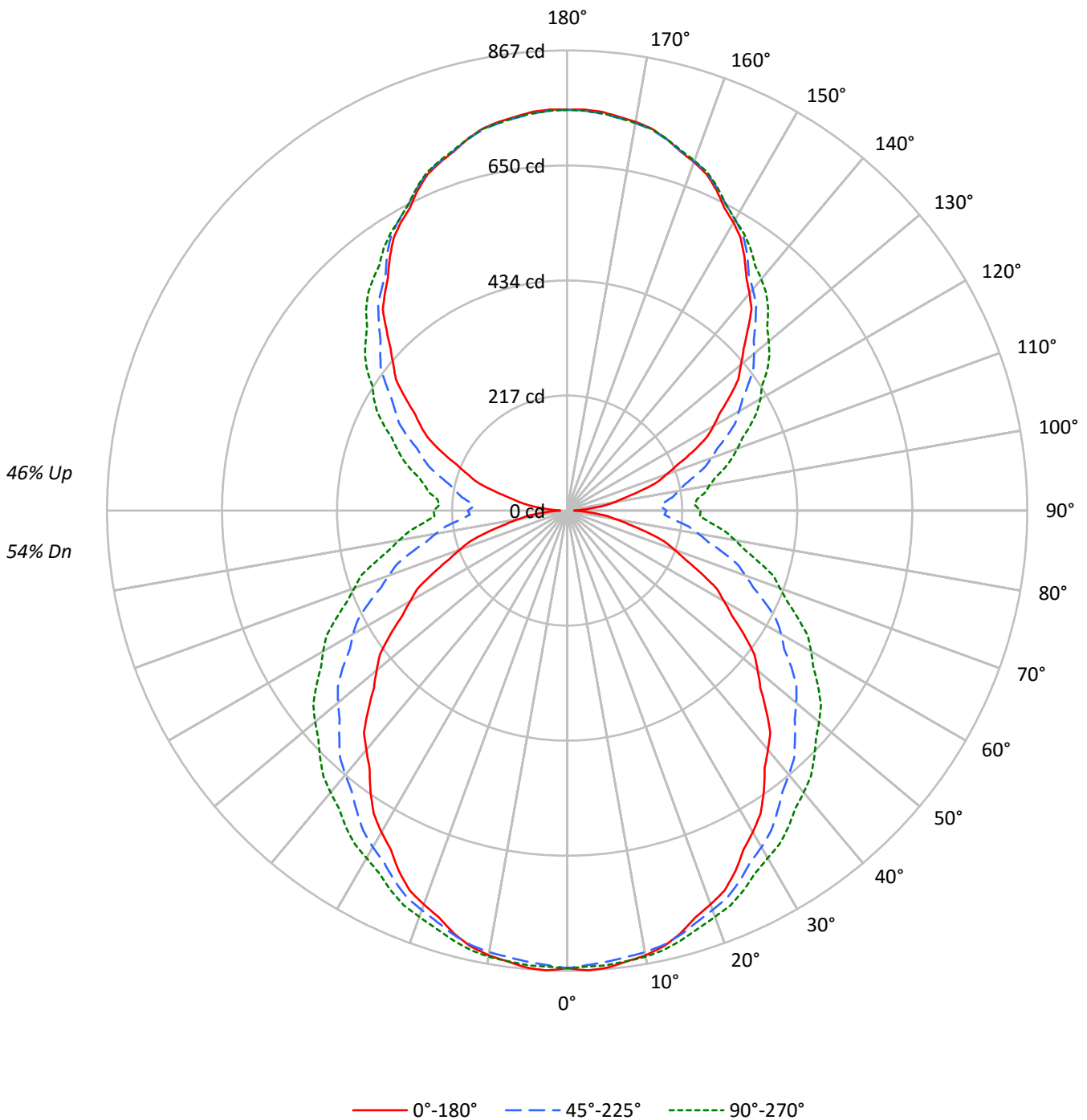
Input Watts (W): 60.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P331442-930

CATALOG NUMBER: S122DIP-S1005D725U930-4F0-1E-UDD-D1

### Luminous Intensity Polar Plot





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CATALOG NUMBER: S122DIP-S1005D725U930-4F0-1E-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	108	108	108	108	100	100	100	100	86	86	86	72	72	72	60	60	60	54
1	97	92	87	83	90	85	81	78	73	70	67	61	59	57	50	49	47	42
2	88	79	73	67	81	74	68	62	63	58	54	53	49	46	43	41	39	34
3	80	69	61	55	73	64	57	51	55	49	45	46	42	38	38	35	32	28
4	73	61	52	46	67	57	49	43	48	42	38	41	36	32	34	30	27	24
5	67	54	45	39	61	50	43	37	43	37	32	36	32	28	30	26	23	20
6	61	48	40	34	56	45	37	32	39	33	28	33	28	24	27	23	20	18
7	57	44	35	29	52	41	33	28	35	29	24	30	25	21	25	21	18	15
8	52	40	31	26	48	37	30	24	32	26	22	27	22	19	23	19	16	14
9	49	36	28	23	45	34	27	22	29	23	19	25	20	17	21	17	14	12
10	46	33	26	21	42	31	24	19	27	21	17	23	18	15	19	16	13	11

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

	0°	45°	90°
0°	13919	13919	13919
5°	13988	13400	13350
10°	13899	13004	12858
15°	13709	12584	12339
20°	13467	12136	11842
25°	13227	11701	11390
30°	12890	11257	10936
35°	12550	10828	10617
40°	12191	10461	10297
45°	11850	10133	10022
50°	11485	9837	9754
55°	11101	9519	9479
60°	10631	9187	9189
65°	10145	8801	8846
70°	9596	8384	8474
75°	8897	7976	8132
80°	7792	7559	7784
85°	6733	7197	7515



TEST NUMBER: P331442-930

CATALOG NUMBER: S122DIP-S1005D725U930-4F0-1E-UDD-D1

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	81.7	1.5
10°-20°	234.3	4.3
20°-30°	355.0	6.6
30°-40°	432.4	8.0
40°-50°	465.2	8.6
50°-60°	451.7	8.4
60°-70°	394.4	7.3
70°-80°	303.7	5.6
80°-90°	206.8	3.8
90°-100°	188.2	3.5
100°-110°	251.1	4.6
110°-120°	321.8	6.0
120°-130°	371.9	6.9
130°-140°	390.8	7.2
140°-150°	370.4	6.9
150°-160°	308.4	5.7
160°-170°	204.5	3.8
170°-180°	71.5	1.3
0°-30°	670.9	12.4
0°-40°	1103.3	20.4
0°-60°	2020.2	37.4
0°-90°	2925.1	54.1
90°-120°	761.1	14.1
90°-150°	1894.2	35.1
90°-180°	2479.0	45.9
0°-180°	5403.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	862	862	862	862	862	
5°	865	861	853	860	860	82
15°	825	827	827	838	837	232
25°	750	759	770	784	788	345
35°	646	667	691	717	727	404
45°	530	564	607	644	658	409
55°	406	452	516	559	577	363
65°	277	339	412	462	480	275
75°	154	224	304	355	374	163
85°	45	123	202	253	272	48
90°	13	94	187	234	252	10
95°	43	109	184	230	246	46
105°	143	183	248	291	306	152
115°	260	280	332	368	381	257
125°	373	381	417	448	460	334
135°	481	489	502	526	536	372
145°	582	587	591	599	603	364
155°	666	668	670	673	671	306
165°	725	724	724	728	725	204
175°	754	752	751	755	751	72
180°	755	755	755	755	755	



TEST NUMBER: P331442-930

CATALOG NUMBER: S122DIP-S1005D725U930-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	862.1	862.1	862.1	862.1	862.1	862.1	862.1	862.1	862.1	862.1	862.1
2.5°	867.2	866.5	865.8	865.1	864.5	863.3	861.8	860.2	858.7	857.1	858.3
5°	864.6	863.8	863.0	862.1	861.3	860.1	858.4	856.7	855.1	853.4	855.1
7.5°	856.9	856.3	855.7	855.2	854.7	853.8	852.5	851.2	849.9	848.6	850.6
10°	850.9	850.4	849.8	849.2	848.6	848.0	847.2	846.3	845.5	844.7	846.9
12.5°	840.9	841.0	841.1	841.2	841.3	841.1	840.5	839.8	839.3	838.6	840.9
15°	824.7	825.2	825.7	826.3	826.9	827.1	827.1	827.1	827.1	827.1	829.6
17.5°	803.6	804.9	806.0	807.1	808.3	809.3	810.2	811.1	812.0	812.9	815.5
20°	789.7	791.1	792.5	793.9	795.2	796.5	797.6	798.7	799.8	801.0	804.0
22.5°	774.7	776.2	777.9	779.5	781.1	782.7	784.2	785.8	787.3	788.9	792.0
25°	749.7	751.6	753.6	755.5	757.5	759.7	762.1	764.7	767.2	769.6	773.0
27.5°	719.7	722.8	726.0	729.2	732.4	735.4	738.3	741.3	744.2	747.2	751.4
30°	699.7	703.3	706.9	710.5	714.1	717.8	721.4	725.0	728.6	732.2	736.6
32.5°	677.7	681.8	685.8	689.9	693.9	698.1	702.4	706.6	710.9	715.2	720.3
35°	646.0	650.7	655.4	660.1	664.9	669.8	675.1	680.4	685.7	691.0	697.1
37.5°	611.5	616.9	622.4	627.8	633.2	639.4	646.2	653.1	659.9	666.8	673.5
40°	588.5	594.6	600.7	606.8	612.9	619.7	627.2	634.7	642.2	649.7	657.0
42.5°	566.6	572.6	578.7	584.8	590.9	598.3	606.9	615.6	624.1	632.8	640.6
45°	529.8	537.3	544.8	552.3	559.8	568.3	578.1	587.8	597.5	607.2	615.9
47.5°	493.6	501.7	509.9	518.0	526.2	536.0	547.4	558.7	570.1	581.5	590.5
50°	468.6	477.2	485.8	494.4	503.0	513.6	526.0	538.5	551.0	563.5	573.0
52.5°	444.6	453.6	462.7	471.7	480.8	491.9	505.0	518.2	531.3	544.5	554.2
55°	406.1	416.0	426.1	436.1	446.1	458.3	472.7	487.1	501.6	516.0	526.0
57.5°	368.1	379.4	390.6	401.9	413.2	426.2	440.9	455.6	470.3	485.0	495.8
60°	341.1	353.0	365.0	376.9	388.9	402.8	418.6	434.4	450.2	466.0	476.6
62.5°	317.2	329.5	341.9	354.2	366.6	380.7	396.6	412.4	428.3	444.1	455.3
65°	277.4	291.0	304.6	318.2	331.8	346.8	363.2	379.5	395.9	412.3	423.7
67.5°	240.9	255.1	269.3	283.6	297.7	313.2	330.0	346.8	363.5	380.3	391.8
70°	214.9	229.3	243.8	258.2	272.6	288.5	305.7	322.9	340.1	357.3	369.2
72.5°	190.9	205.8	220.7	235.5	250.5	266.6	284.1	301.5	318.9	336.4	348.1
75°	153.7	169.3	184.7	200.3	215.9	232.5	250.3	268.1	285.8	303.6	315.5
77.5°	117.7	134.0	150.3	166.5	182.8	199.9	218.0	236.0	254.0	272.1	284.1
80°	93.7	110.6	127.6	144.6	161.4	179.0	197.0	215.1	233.1	251.1	262.8
82.5°	73.7	90.4	107.1	123.8	140.6	158.1	176.3	194.6	212.9	231.1	242.8
85°	45.0	62.2	79.4	96.6	113.8	131.3	149.1	166.9	184.7	202.4	214.1
87.5°	24.6	41.5	58.4	75.3	92.2	109.8	128.2	146.6	165.0	183.4	194.7
90°	13.1	30.9	48.8	66.5	84.4	103.7	124.6	145.4	166.3	187.3	198.0
92.5°	22.8	39.1	55.4	71.6	87.8	104.8	122.7	140.6	158.3	176.2	187.1
95°	43.1	57.6	72.1	86.5	101.0	116.7	133.6	150.6	167.5	184.5	195.0
97.5°	69.3	82.1	95.0	107.9	120.7	135.4	151.9	168.4	185.0	201.5	211.8
100°	89.7	101.1	112.5	123.9	135.3	149.0	164.9	180.9	196.9	212.9	223.1
102.5°	110.1	120.4	130.7	141.0	151.2	164.2	179.9	195.5	211.2	226.8	236.9
105°	143.2	151.7	160.2	168.7	177.2	188.7	203.5	218.2	232.9	247.7	257.6
107.5°	177.9	185.0	192.1	199.1	206.2	216.6	230.5	244.3	258.1	272.0	281.4
110°	199.3	205.8	212.1	218.6	224.9	235.0	248.6	262.2	275.8	289.4	298.3



TEST NUMBER: P331442-930

CATALOG NUMBER: S122DIP-S1005D725U930-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	223.8	229.3	234.9	240.4	245.9	255.0	267.9	280.7	293.5	306.4	315.0
115°	259.9	263.8	267.7	271.7	275.5	283.6	295.8	308.0	320.2	332.4	340.6
117.5°	294.6	297.7	300.8	304.0	307.1	314.1	324.8	335.6	346.3	357.1	365.0
120°	318.5	320.8	323.0	325.3	327.5	333.6	343.6	353.6	363.5	373.6	381.3
122.5°	340.5	342.3	344.1	345.9	347.7	353.4	363.1	372.8	382.4	392.0	399.3
125°	373.4	374.6	375.9	377.2	378.5	383.4	391.8	400.3	408.7	417.2	424.3
127.5°	406.7	408.0	409.4	410.7	412.0	416.0	422.7	429.3	435.9	442.6	449.0
130°	427.5	429.1	430.7	432.3	433.8	437.4	443.0	448.5	454.0	459.6	465.9
132.5°	451.0	452.2	453.5	454.7	455.9	458.8	463.3	467.9	472.5	477.0	482.8
135°	481.1	482.7	484.2	485.8	487.4	489.7	492.7	495.8	498.8	501.9	507.6
137.5°	514.1	515.4	516.6	517.8	519.0	520.4	522.0	523.6	525.2	526.8	531.7
140°	534.0	535.0	536.0	537.0	538.0	539.2	540.4	541.7	542.9	544.2	548.6
142.5°	554.4	555.4	556.4	557.4	558.4	559.2	559.8	560.4	560.9	561.6	565.2
145°	582.4	583.4	584.5	585.5	586.4	587.3	588.2	589.1	589.9	590.8	592.6
147.5°	608.6	609.8	611.0	612.1	613.3	614.2	614.8	615.4	616.0	616.5	617.0
150°	626.5	627.3	628.1	629.0	629.8	630.6	631.1	631.7	632.3	632.8	633.2
152.5°	642.2	643.1	643.9	644.8	645.6	646.4	647.1	647.8	648.4	649.1	649.6
155°	665.9	666.3	666.8	667.2	667.6	668.1	668.5	669.0	669.4	669.8	670.5
157.5°	686.2	686.5	686.8	687.1	687.4	687.6	687.9	688.1	688.4	688.6	689.6
160°	698.5	698.7	699.0	699.3	699.6	699.8	699.9	700.1	700.3	700.3	701.2
162.5°	709.6	709.7	709.8	709.8	709.9	710.0	710.1	710.3	710.5	710.5	711.5
165°	724.6	724.5	724.3	724.1	724.0	723.9	723.9	723.9	723.9	723.9	725.0
167.5°	737.0	736.6	736.2	735.8	735.4	735.2	735.2	735.1	735.1	735.0	736.1
170°	743.7	743.3	742.8	742.4	742.0	741.7	741.6	741.4	741.3	741.1	742.2
172.5°	748.3	747.9	747.5	747.0	746.6	746.3	746.2	746.0	745.9	745.8	746.7
175°	753.9	753.5	753.0	752.6	752.2	751.9	751.5	751.3	751.0	750.7	751.7
177.5°	756.2	755.9	755.5	755.1	754.8	754.6	754.3	754.1	753.8	753.7	754.3
180°	755.1	755.1	755.1	755.1	755.1	755.1	755.1	755.1	755.1	755.1	755.1



TEST NUMBER: P331442-930

CATALOG NUMBER: S122DIP-S1005D725U930-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	862.1	862.1	862.1	862.1	862.1	862.1	862.1	862.1
2.5°	859.3	860.5	861.6	861.9	861.4	861.0	860.5	860.1
5°	856.7	858.4	860.1	860.7	860.5	860.2	859.9	859.7
7.5°	852.6	854.7	856.6	857.5	857.2	857.0	856.6	856.4
10°	849.1	851.3	853.5	854.5	854.2	853.9	853.7	853.4
12.5°	843.1	845.3	847.5	848.5	848.2	847.9	847.7	847.4
15°	832.2	834.6	837.1	838.3	838.0	837.7	837.4	837.1
17.5°	818.2	820.8	823.4	824.7	824.7	824.7	824.7	824.7
20°	807.0	810.1	813.1	814.6	814.6	814.6	814.6	814.6
22.5°	795.0	798.1	801.1	802.9	803.3	803.8	804.2	804.7
25°	776.3	779.7	783.0	785.1	785.9	786.8	787.6	788.4
27.5°	755.6	759.9	764.1	766.5	767.1	767.7	768.3	768.9
30°	741.1	745.5	750.0	752.6	753.4	754.2	755.1	755.9
32.5°	725.5	730.5	735.6	738.9	740.5	741.9	743.5	744.9
35°	703.2	709.3	715.4	719.4	721.4	723.3	725.3	727.2
37.5°	680.3	687.1	693.8	698.2	700.3	702.4	704.4	706.5
40°	664.1	671.4	678.6	683.5	686.0	688.4	691.0	693.5
42.5°	648.5	656.4	664.3	669.4	672.0	674.5	676.9	679.5
45°	624.4	633.1	641.6	647.3	650.1	652.9	655.7	658.4
47.5°	599.5	608.5	617.5	623.5	626.6	629.7	632.7	635.8
50°	582.4	591.8	601.3	607.6	610.6	613.6	616.7	619.7
52.5°	563.9	573.5	583.2	589.6	592.9	596.2	599.5	602.8
55°	536.1	546.0	556.0	562.8	566.4	570.1	573.6	577.2
57.5°	506.6	517.4	528.2	535.3	539.0	542.7	546.3	550.0
60°	487.1	497.7	508.3	515.5	519.3	523.3	527.2	531.0
62.5°	466.5	477.7	488.9	496.4	500.0	503.7	507.4	511.0
65°	435.1	446.5	457.9	465.4	469.0	472.5	476.2	479.8
67.5°	403.3	414.8	426.3	434.0	437.7	441.5	445.3	449.1
70°	381.2	393.1	405.1	412.7	416.0	419.4	422.7	426.1
72.5°	359.8	371.5	383.2	391.1	395.1	399.1	403.1	407.1
75°	327.5	339.4	351.4	359.1	362.7	366.4	370.0	373.6
77.5°	295.9	307.8	319.7	327.6	331.4	335.3	339.2	343.1
80°	274.4	286.2	297.8	305.6	309.5	313.3	317.2	321.1
82.5°	254.5	266.1	277.8	285.4	289.1	292.8	296.4	300.1
85°	225.8	237.4	249.1	256.8	260.7	264.6	268.5	272.4
87.5°	205.9	217.2	228.4	235.9	239.5	243.0	246.6	250.2
90°	208.9	219.7	230.6	237.7	241.2	244.6	248.1	251.6
92.5°	198.1	209.0	220.0	227.1	230.5	233.8	237.2	240.6
95°	205.5	216.1	226.7	233.5	236.5	239.6	242.6	245.6
97.5°	222.1	232.4	242.6	249.4	252.6	255.8	259.1	262.4
100°	233.4	243.7	254.0	260.6	263.5	266.4	269.3	272.2
102.5°	247.1	257.3	267.4	274.0	276.9	279.8	282.7	285.7
105°	267.7	277.7	287.6	294.2	297.3	300.3	303.4	306.4
107.5°	290.8	300.3	309.7	315.6	318.0	320.4	322.9	325.2
110°	307.2	316.1	325.0	330.7	333.3	336.0	338.6	341.2





TEST NUMBER: P331442-930

CATALOG NUMBER: S122DIP-S1005D725U930-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	323.4	332.0	340.6	346.2	348.9	351.6	354.4	357.2
115°	348.8	357.0	365.2	370.6	373.2	375.9	378.5	381.1
117.5°	372.8	380.7	388.7	393.8	396.2	398.6	401.0	403.4
120°	389.1	396.9	404.6	409.9	412.5	415.1	417.8	420.4
122.5°	406.4	413.7	420.9	425.6	428.0	430.2	432.5	434.8
125°	431.4	438.4	445.5	450.2	452.6	454.9	457.3	459.7
127.5°	455.3	461.7	468.1	472.3	474.3	476.3	478.3	480.3
130°	472.3	478.7	485.1	489.1	490.7	492.4	494.1	495.7
132.5°	488.7	494.5	500.3	504.1	505.8	507.6	509.4	511.2
135°	513.3	518.9	524.6	528.4	530.2	532.0	533.8	535.6
137.5°	536.8	541.8	546.7	549.9	551.2	552.5	553.8	555.2
140°	553.1	557.5	562.0	564.8	565.8	567.0	568.0	569.2
142.5°	568.9	572.6	576.3	578.5	579.4	580.2	581.1	582.0
145°	594.4	596.1	598.0	599.3	600.1	601.0	601.8	602.6
147.5°	617.6	618.1	618.6	619.0	619.1	619.2	619.4	619.5
150°	633.7	634.1	634.5	634.5	634.1	633.7	633.2	632.8
152.5°	650.2	650.8	651.3	651.3	650.8	650.2	649.6	649.1
155°	671.2	671.9	672.6	672.8	672.3	671.9	671.5	671.1
157.5°	690.6	691.5	692.5	692.6	691.9	691.3	690.6	689.9
160°	702.1	703.0	703.8	703.9	703.4	702.8	702.2	701.6
162.5°	712.5	713.5	714.4	714.5	713.9	713.2	712.5	711.8
165°	725.9	726.9	727.9	728.1	727.3	726.6	725.9	725.2
167.5°	737.0	738.0	739.0	739.2	738.4	737.7	736.9	736.2
170°	743.1	744.1	745.1	745.2	744.4	743.5	742.7	741.8
172.5°	747.7	748.7	749.7	749.7	748.9	748.0	747.2	746.4
175°	752.7	753.7	754.6	754.7	753.9	753.0	752.2	751.4
177.5°	755.0	755.7	756.4	756.4	755.7	755.0	754.3	753.7
180°	755.1	755.1	755.1	755.1	755.1	755.1	755.1	755.1

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