

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: P331434-940

Luminaire Tested: **S122DIP-S1005D530U940-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331434-940
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-16,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122DIP-S1005D530U940-4F0-1E-UDD-D4
Description: DEFINE 2 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1005 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: 5439.9 lumens
Efficiency: N/A
Efficacy: 98.7 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

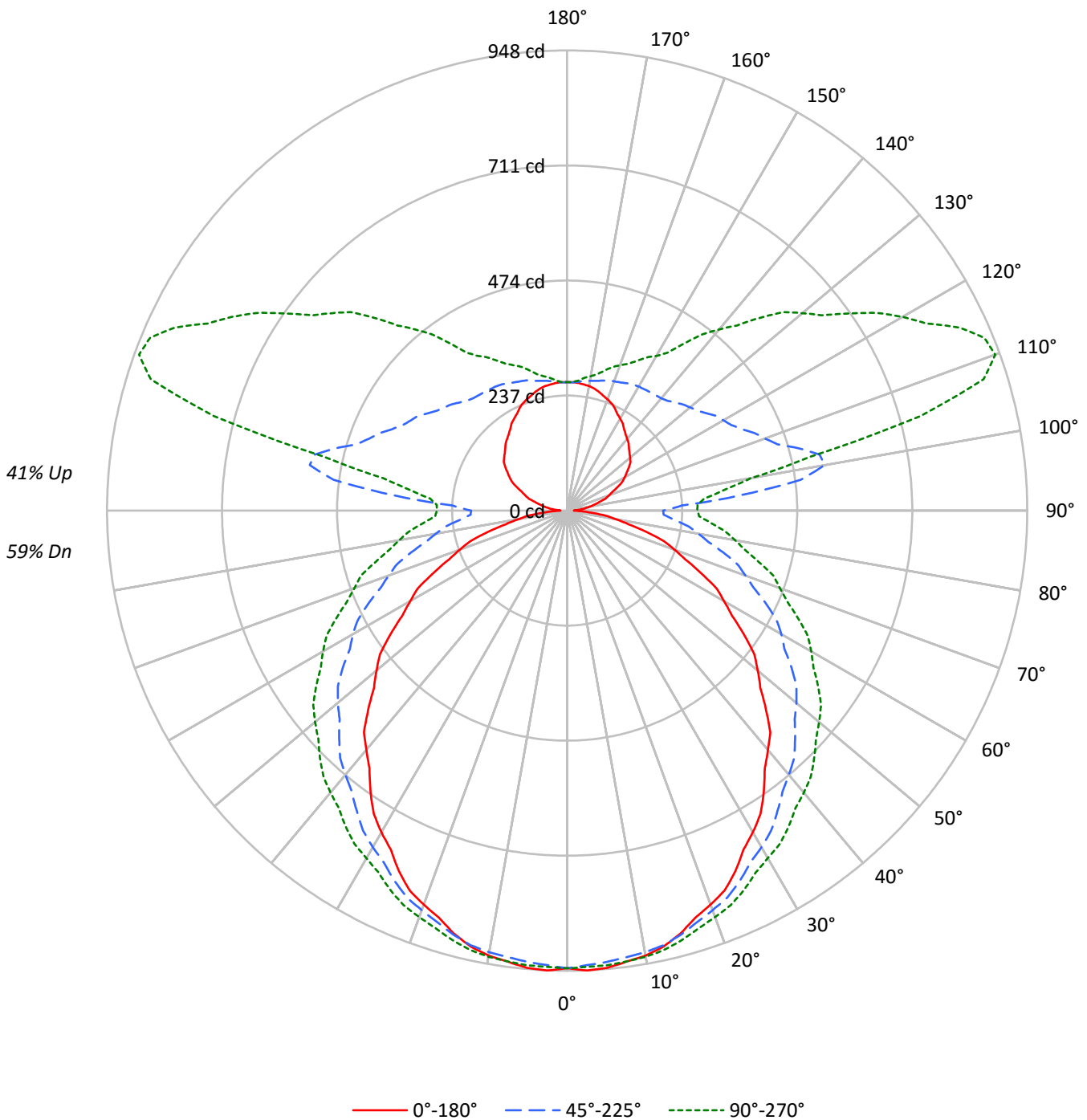
Input Watts (W): 55.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P331434-940

CATALOG NUMBER: S122DIP-S1005D530U940-4F0-1E-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	0
RCR																		
0	109	109	109	109	102	102	102	102	88	88	88	76	76	76	64	64	64	59
1	98	93	88	84	91	87	82	79	75	72	69	64	62	60	54	52	51	46
2	89	80	73	67	82	75	69	63	65	60	56	55	52	48	46	44	41	37
3	80	70	62	55	74	65	58	52	56	51	46	48	44	40	41	37	34	31
4	73	61	53	46	68	57	50	44	50	44	39	43	38	34	36	32	29	26
5	67	55	46	39	62	51	43	37	44	38	33	38	33	29	32	28	25	22
6	62	49	40	34	57	46	38	32	40	33	29	34	29	25	29	25	22	19
7	57	44	36	30	53	41	34	28	36	30	25	31	26	22	27	22	19	17
8	53	40	32	26	49	37	30	25	33	27	22	28	23	20	24	20	17	15
9	49	36	29	23	46	34	27	22	30	24	20	26	21	18	22	18	16	13
10	46	33	26	21	43	31	24	20	28	22	18	24	19	16	21	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15224	15224	15224
5°	15300	14656	14600
10°	15203	14222	14063
15°	14994	13763	13496
20°	14728	13272	12952
25°	14466	12799	12457
30°	14098	12312	11962
35°	13725	11842	11611
40°	13332	11442	11262
45°	12960	11082	10962
50°	12561	10760	10668
55°	12143	10411	10368
60°	11628	10049	10051
65°	11095	9625	9675
70°	10498	9170	9268
75°	9730	8725	8894
80°	8523	8267	8514
85°	7361	7873	8218



TEST NUMBER: P331434-940

CATALOG NUMBER: S122DIP-S1005D530U940-4F0-1E-UDD-D4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.3	1.6
10°-20°	256.2	4.7
20°-30°	388.3	7.1
30°-40°	472.9	8.7
40°-50°	508.8	9.4
50°-60°	494.1	9.1
60°-70°	431.4	7.9
70°-80°	332.1	6.1
80°-90°	225.3	4.1
90°-100°	259.3	4.8
100°-110°	470.9	8.7
110°-120°	455.2	8.4
120°-130°	355.1	6.5
130°-140°	269.3	5.0
140°-150°	193.4	3.6
150°-160°	133.8	2.5
160°-170°	78.8	1.4
170°-180°	25.6	0.5
0°-30°	733.8	13.5
0°-40°	1206.7	22.2
0°-60°	2209.5	40.6
0°-90°	3198.3	58.8
90°-120°	1185.4	21.8
90°-150°	2003.3	36.8
90°-180°	2242.0	41.2
0°-180°	5439.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	943	943	943	943	943	
5°	946	941	933	941	940	90
15°	902	904	905	916	916	254
25°	820	830	842	858	862	377
35°	706	730	756	785	795	441
45°	579	617	664	705	720	447
55°	444	495	564	612	631	397
65°	303	371	451	505	525	301
75°	168	245	332	389	409	178
85°	49	134	221	277	298	53
90°	14	100	198	249	268	10
95°	29	120	356	282	284	27
105°	69	142	494	837	754	74
115°	115	161	397	772	892	113
125°	155	186	350	609	707	138
135°	180	216	315	486	562	140
145°	204	235	298	378	420	129
155°	232	251	289	327	340	107
165°	253	261	277	294	298	71
175°	264	264	266	270	269	25
180°	264	264	264	264	264	



TEST NUMBER: P331434-940

CATALOG NUMBER: S122DIP-S1005D530U940-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	942.9	942.9	942.9	942.9	942.9	942.9	942.9	942.9	942.9	942.9	942.9
2.5°	948.4	947.7	946.9	946.2	945.5	944.2	942.5	940.8	939.1	937.5	938.7
5°	945.7	944.8	943.9	942.9	942.0	940.7	938.9	937.0	935.2	933.4	935.2
7.5°	937.2	936.6	935.9	935.4	934.8	933.8	932.4	930.9	929.6	928.2	930.3
10°	930.7	930.1	929.4	928.8	928.2	927.5	926.6	925.6	924.7	923.8	926.2
12.5°	919.7	919.8	920.0	920.1	920.2	919.9	919.3	918.6	917.9	917.2	919.7
15°	902.0	902.6	903.1	903.7	904.4	904.6	904.6	904.6	904.6	904.6	907.4
17.5°	879.0	880.3	881.5	882.8	884.0	885.2	886.2	887.2	888.1	889.1	892.0
20°	863.7	865.2	866.7	868.3	869.8	871.1	872.4	873.5	874.8	876.0	879.3
22.5°	847.3	849.0	850.8	852.6	854.3	856.0	857.7	859.4	861.1	862.8	866.2
25°	819.9	822.1	824.2	826.3	828.5	830.9	833.6	836.3	839.1	841.8	845.4
27.5°	787.1	790.6	794.1	797.5	801.0	804.3	807.5	810.7	814.0	817.3	821.8
30°	765.3	769.2	773.2	777.1	781.0	785.1	789.0	792.9	796.8	800.8	805.7
32.5°	741.2	745.6	750.1	754.6	758.9	763.5	768.2	772.8	777.6	782.2	787.8
35°	706.5	711.7	716.8	722.0	727.2	732.6	738.4	744.1	749.9	755.7	762.4
37.5°	668.8	674.8	680.7	686.6	692.6	699.3	706.8	714.3	721.8	729.2	736.6
40°	643.6	650.3	657.0	663.7	670.4	677.8	686.0	694.2	702.4	710.6	718.5
42.5°	619.6	626.2	632.9	639.6	646.3	654.3	663.8	673.2	682.6	692.1	700.6
45°	579.4	587.6	595.8	604.0	612.2	621.6	632.3	642.9	653.5	664.1	673.6
47.5°	539.8	548.8	557.7	566.6	575.5	586.2	598.7	611.1	623.6	636.0	645.9
50°	512.5	521.9	531.3	540.7	550.1	561.7	575.3	589.0	602.6	616.4	626.7
52.5°	486.2	496.1	506.0	515.9	525.8	538.0	552.3	566.8	581.1	595.6	606.1
55°	444.2	455.0	466.0	477.0	487.9	501.2	517.0	532.8	548.6	564.4	575.3
57.5°	402.6	414.9	427.2	439.6	451.9	466.1	482.2	498.3	514.4	530.5	542.2
60°	373.1	386.1	399.2	412.2	425.3	440.5	457.8	475.1	492.4	509.7	521.3
62.5°	346.9	360.3	373.9	387.4	401.0	416.4	433.7	451.0	468.4	485.7	497.9
65°	303.4	318.3	333.1	348.0	362.9	379.3	397.3	415.1	433.0	450.9	463.4
67.5°	263.5	279.0	294.5	310.1	325.7	342.6	361.0	379.3	397.6	416.0	428.6
70°	235.1	250.8	266.6	282.4	298.2	315.5	334.4	353.2	372.0	390.8	403.9
72.5°	208.8	225.1	241.4	257.6	273.9	291.6	310.7	329.8	348.8	367.9	380.7
75°	168.1	185.1	202.1	219.1	236.1	254.3	273.8	293.2	312.6	332.1	345.1
77.5°	128.8	146.5	164.3	182.1	199.9	218.6	238.4	258.2	277.9	297.7	310.7
80°	102.5	121.0	139.6	158.1	176.6	195.7	215.4	235.2	254.9	274.6	287.4
82.5°	80.6	98.9	117.2	135.5	153.7	172.9	192.9	212.9	232.8	252.8	265.6
85°	49.2	68.0	86.9	105.7	124.5	143.7	163.1	182.5	202.0	221.4	234.2
87.5°	26.9	45.3	63.8	82.1	100.4	119.5	139.5	159.5	179.6	199.1	211.4
90°	14.2	33.3	53.0	71.6	90.2	110.3	132.2	155.2	177.7	197.7	209.3
92.5°	18.8	37.9	58.0	76.6	96.5	118.8	149.0	183.9	217.0	236.7	238.3
95°	28.7	45.0	64.4	83.3	105.7	134.1	175.8	238.2	315.4	356.5	343.1
97.5°	38.5	53.9	72.1	91.7	113.8	142.7	189.6	268.7	384.2	485.7	513.6
100°	48.7	61.5	77.3	96.7	118.1	146.4	190.4	269.5	396.3	538.4	622.9
102.5°	57.0	68.4	83.2	101.7	122.4	150.1	191.5	263.1	381.4	532.8	658.9
105°	68.8	79.7	92.1	108.5	128.5	155.1	194.7	255.8	355.5	494.4	640.2
107.5°	83.3	91.9	102.5	116.5	134.6	160.1	198.3	253.0	337.4	454.2	584.0
110°	91.9	100.0	109.1	121.8	138.6	163.8	201.1	252.5	329.5	433.9	548.8



TEST NUMBER: P331434-940

CATALOG NUMBER: S122DIP-S1005D530U940-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	100.9	108.0	116.5	127.9	143.2	168.0	203.8	252.4	323.0	417.2	521.7
115°	114.8	120.6	127.1	136.5	150.0	172.3	207.8	252.4	315.5	397.3	486.8
117.5°	127.9	132.1	137.3	144.9	156.9	178.5	211.4	253.1	309.0	381.3	460.1
120°	136.8	140.1	144.4	150.2	161.5	182.4	214.5	254.0	305.3	371.9	445.0
122.5°	145.3	147.5	151.1	156.5	167.1	187.7	217.8	254.6	302.4	363.7	431.2
125°	155.3	156.9	159.9	165.9	176.1	195.3	223.3	255.8	297.1	349.6	410.1
127.5°	164.3	165.9	170.0	176.4	185.8	204.2	229.9	258.2	293.6	338.0	390.5
130°	169.5	171.3	176.0	182.9	192.7	210.0	234.2	259.8	291.7	330.6	377.6
132.5°	174.4	176.6	181.7	189.0	199.2	215.8	237.7	261.5	289.8	323.6	365.9
135°	180.4	182.4	188.5	196.2	207.9	223.6	242.9	263.8	287.1	314.6	349.9
137.5°	187.3	189.7	195.7	203.8	215.3	229.2	246.6	264.5	284.4	306.6	336.4
140°	192.6	194.3	200.1	207.9	218.8	232.2	248.1	264.4	282.3	301.8	328.5
142.5°	197.9	199.2	204.6	212.4	222.9	235.2	250.2	265.6	281.9	299.5	322.4
145°	204.5	206.4	211.5	219.2	229.3	240.5	254.2	268.5	282.8	298.0	316.1
147.5°	212.9	214.5	219.4	226.4	234.9	244.8	257.7	270.3	283.1	296.1	310.7
150°	218.6	220.2	224.3	230.9	238.5	247.6	259.3	271.1	282.8	295.0	307.2
152.5°	224.4	225.1	229.2	235.0	242.2	250.5	261.0	271.4	282.0	292.9	304.3
155°	232.4	232.9	235.9	241.6	247.2	254.8	263.4	272.1	280.7	289.4	299.0
157.5°	239.1	239.6	242.1	246.9	251.5	257.8	265.1	272.1	278.4	285.7	294.0
160°	243.6	244.1	246.1	250.2	254.2	259.8	266.0	272.1	277.1	283.3	290.3
162.5°	248.1	247.7	249.8	253.1	256.7	261.1	266.4	271.6	275.9	281.2	287.1
165°	253.2	252.7	253.8	256.8	259.3	262.4	267.0	270.5	273.6	277.1	281.7
167.5°	257.5	256.9	257.8	259.8	261.6	263.5	266.9	269.8	271.3	273.6	276.4
170°	260.4	259.3	259.8	261.4	262.4	263.9	266.4	269.0	270.0	271.5	273.6
172.5°	262.0	261.4	261.1	262.6	263.2	264.3	266.1	267.8	268.4	269.1	270.7
175°	263.9	263.4	262.9	263.9	263.9	264.4	265.5	266.4	266.0	266.4	267.0
177.5°	264.8	264.0	263.6	264.4	264.4	264.4	264.8	265.6	264.8	264.4	264.8
180°	264.4	264.4	264.4	264.4	264.4	264.4	264.4	264.4	264.4	264.4	264.4



TEST NUMBER: P331434-940

CATALOG NUMBER: S122DIP-S1005D530U940-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	942.9	942.9	942.9	942.9	942.9	942.9	942.9	942.9
2.5°	939.9	941.1	942.4	942.7	942.2	941.7	941.2	940.8
5°	937.0	938.9	940.7	941.4	941.1	940.8	940.5	940.2
7.5°	932.6	934.8	936.9	937.9	937.5	937.3	936.9	936.7
10°	928.6	931.1	933.5	934.6	934.2	934.0	933.7	933.4
12.5°	922.1	924.5	926.9	928.0	927.7	927.4	927.1	926.8
15°	910.2	912.8	915.6	916.9	916.5	916.2	915.9	915.6
17.5°	894.8	897.7	900.5	902.0	902.0	902.0	902.0	902.0
20°	882.6	886.0	889.3	891.0	891.0	891.0	891.0	891.0
22.5°	869.5	872.9	876.2	878.2	878.6	879.1	879.6	880.1
25°	849.1	852.7	856.4	858.6	859.6	860.5	861.4	862.3
27.5°	826.4	831.1	835.7	838.3	839.0	839.6	840.3	841.0
30°	810.6	815.4	820.3	823.1	824.0	824.9	825.9	826.8
32.5°	793.4	799.0	804.6	808.2	809.9	811.5	813.2	814.8
35°	769.1	775.8	782.5	786.8	789.0	791.1	793.3	795.3
37.5°	744.0	751.4	758.8	763.7	765.9	768.2	770.4	772.7
40°	726.4	734.3	742.2	747.5	750.3	753.0	755.7	758.5
42.5°	709.3	717.9	726.6	732.2	734.9	737.7	740.4	743.2
45°	683.0	692.4	701.8	708.0	711.1	714.1	717.1	720.1
47.5°	655.7	665.5	675.4	682.0	685.3	688.7	692.0	695.4
50°	636.9	647.3	657.6	664.5	667.8	671.1	674.5	677.8
52.5°	616.7	627.2	637.8	644.9	648.5	652.1	655.7	659.2
55°	586.3	597.2	608.1	615.5	619.5	623.5	627.4	631.3
57.5°	554.1	565.9	577.7	585.5	589.5	593.5	597.5	601.5
60°	532.8	544.4	555.9	563.8	568.0	572.3	576.6	580.8
62.5°	510.2	522.5	534.8	542.9	546.9	550.9	554.9	558.9
65°	475.9	488.3	500.8	509.0	512.9	516.8	520.8	524.8
67.5°	441.1	453.7	466.3	474.7	478.8	482.9	487.1	491.2
70°	417.0	430.0	443.1	451.4	455.0	458.7	462.4	466.0
72.5°	393.5	406.4	419.1	427.8	432.1	436.5	440.9	445.2
75°	358.2	371.2	384.3	392.8	396.7	400.7	404.7	408.6
77.5°	323.6	336.6	349.6	358.3	362.5	366.8	371.0	375.2
80°	300.1	313.0	325.7	334.2	338.5	342.7	347.0	351.2
82.5°	278.3	291.1	303.8	312.2	316.2	320.2	324.2	328.2
85°	246.9	259.7	272.4	280.9	285.2	289.4	293.6	297.9
87.5°	223.7	235.9	248.5	256.7	260.6	264.5	268.4	272.3
90°	221.0	232.1	245.2	253.7	257.3	260.9	264.6	268.2
92.5°	238.7	244.3	251.9	256.5	259.8	261.8	265.8	268.7
95°	313.4	294.0	284.2	280.6	277.6	277.1	279.3	283.5
97.5°	478.8	433.5	389.7	360.4	339.7	330.7	326.9	326.2
100°	623.4	571.6	513.2	459.0	420.1	401.5	390.1	384.3
102.5°	715.8	712.5	672.5	614.6	572.0	538.1	523.0	513.9
105°	756.6	824.7	842.0	832.1	804.0	775.8	757.2	753.5
107.5°	706.3	803.1	866.2	897.6	904.9	906.5	905.4	899.4
110°	665.8	766.6	841.4	889.7	914.9	927.8	935.8	938.6



TEST NUMBER: P331434-940

CATALOG NUMBER: S122DIP-S1005D530U940-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	628.1	725.2	804.5	858.8	892.6	912.0	924.1	930.1
115°	579.8	667.2	742.9	801.6	841.0	867.7	884.2	892.2
117.5°	540.5	618.2	687.6	742.8	782.7	810.5	827.5	834.5
120°	519.1	590.7	653.1	705.3	744.2	771.4	789.5	797.9
122.5°	501.1	567.0	626.4	673.8	708.6	734.9	750.9	758.0
125°	473.8	534.3	587.3	630.9	663.1	685.2	700.6	707.4
127.5°	446.8	501.8	551.5	591.7	620.2	641.0	654.6	660.6
130°	429.6	480.6	528.1	566.5	593.9	613.6	626.2	632.7
132.5°	412.8	460.3	504.3	540.6	567.5	587.2	599.0	605.1
135°	389.3	429.3	469.2	502.1	526.4	545.6	557.2	561.7
137.5°	369.0	402.6	434.9	463.5	485.5	502.0	512.1	517.2
140°	356.2	385.5	413.8	439.4	457.5	472.6	482.1	486.9
142.5°	346.4	371.0	395.0	416.5	433.5	447.1	455.5	457.7
145°	333.7	352.3	369.9	386.3	400.0	410.2	416.8	419.8
147.5°	324.3	337.8	350.4	361.6	372.4	380.0	384.2	385.8
150°	319.3	330.6	341.3	350.4	358.0	364.1	367.1	367.7
152.5°	314.9	325.3	334.3	342.2	348.2	353.6	355.8	355.9
155°	308.7	316.8	324.4	330.0	335.6	339.2	341.3	340.2
157.5°	301.5	308.3	314.7	319.1	323.0	326.0	326.9	326.9
160°	296.9	302.6	308.2	311.7	315.3	317.8	318.3	318.3
162.5°	292.5	297.3	302.1	304.8	308.4	310.1	310.6	310.2
165°	285.8	289.4	292.9	295.0	296.9	299.0	299.0	298.5
167.5°	279.4	282.1	284.5	286.4	287.3	288.5	288.4	287.8
170°	276.2	277.7	279.7	280.7	281.2	282.8	282.2	281.2
172.5°	272.5	273.6	275.2	275.8	276.3	277.1	276.5	275.9
175°	268.5	269.0	269.6	270.0	270.0	270.5	270.0	269.0
177.5°	265.6	265.6	266.1	266.1	266.1	266.1	265.6	264.8
180°	264.4	264.4	264.4	264.4	264.4	264.4	264.4	264.4

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