

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: P331978-930

Luminaire Tested: **S123DIP-S775D805U930-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331978-930
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-17,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DIP-S775D805U930-4F0-1E-UDD-D4
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 775 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 805 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5005.0 lumens
Efficiency: N/A
Efficacy: 109.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.08')
CIE Type: General Diffuse

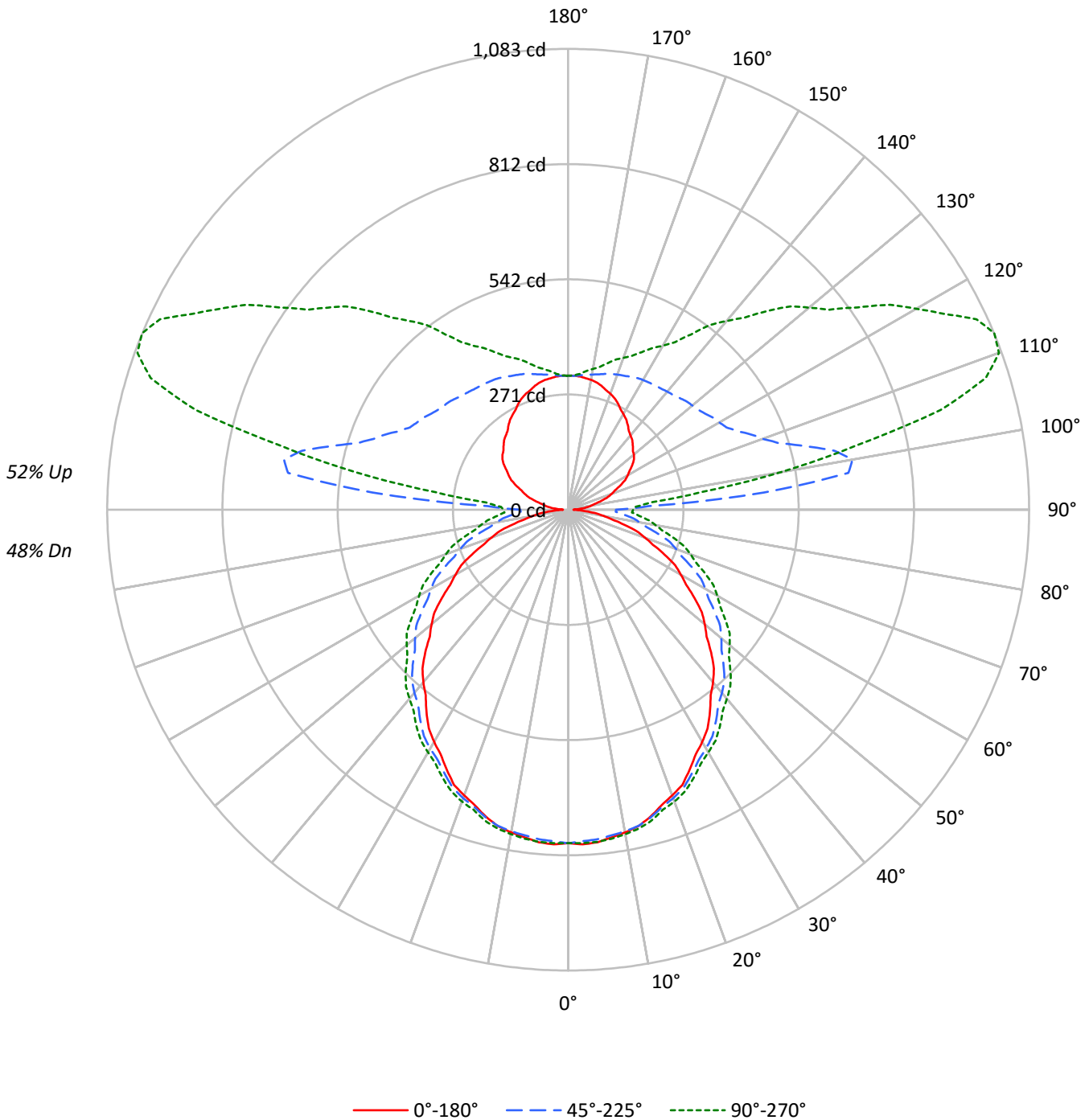
Input Watts (W): 45.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P331978-930

CATALOG NUMBER: S123DIP-S775D805U930-4F0-1E-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	107	107	107	107	98	98	98	98	82	82	82	68	68	68	55	55	55	48
1	96	92	87	83	88	84	81	77	71	68	65	58	56	54	47	45	44	39
2	87	79	73	67	80	73	67	63	61	57	53	50	47	45	40	38	36	31
3	79	69	62	56	73	64	57	52	54	49	44	44	40	37	35	33	30	26
4	72	61	53	47	66	57	49	44	48	42	38	39	35	32	32	28	26	22
5	66	54	46	40	61	50	43	37	42	37	32	35	31	27	28	25	22	19
6	61	49	40	34	56	45	38	32	38	32	28	32	27	24	26	22	20	17
7	56	44	36	30	52	41	33	28	34	29	25	29	24	21	23	20	17	15
8	52	40	32	26	48	37	30	25	31	26	22	26	22	19	21	18	16	13
9	49	36	29	23	45	34	27	22	29	23	19	24	20	17	20	16	14	12
10	45	33	26	21	42	31	24	20	26	21	17	22	18	15	18	15	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8436	8436	8436
5°	8462	8223	8228
10°	8386	8033	7993
15°	8278	7819	7738
20°	8123	7573	7456
25°	7933	7290	7160
30°	7737	7036	6861
35°	7518	6767	6621
40°	7310	6522	6365
45°	7079	6288	6161
50°	6848	6055	5934
55°	6597	5818	5731
60°	6352	5577	5522
65°	6098	5319	5274
70°	5718	5030	5022
75°	5236	4699	4763
80°	4684	4372	4467
85°	4170	4150	4296



TEST NUMBER: P331978-930

CATALOG NUMBER: S123DIP-S775D805U930-4F0-1E-UDD-D4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.3	1.5
10°-20°	211.8	4.2
20°-30°	316.7	6.3
30°-40°	378.3	7.6
40°-50°	395.8	7.9
50°-60°	371.4	7.4
60°-70°	310.2	6.2
70°-80°	221.9	4.4
80°-90°	134.8	2.7
90°-100°	258.3	5.2
100°-110°	557.2	11.1
110°-120°	528.9	10.6
120°-130°	412.6	8.2
130°-140°	317.4	6.3
140°-150°	231.4	4.6
150°-160°	159.7	3.2
160°-170°	93.8	1.9
170°-180°	30.5	0.6
0°-30°	602.8	12.0
0°-40°	981.1	19.6
0°-60°	1748.2	34.9
0°-90°	2415.1	48.3
90°-120°	1344.4	26.9
90°-150°	2305.8	46.1
90°-180°	2590.0	51.7
0°-180°	5005.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	784	784	784	784	784	
5°	785	783	778	784	784	74
15°	747	749	749	757	756	210
25°	674	683	686	696	697	311
35°	580	594	605	618	622	363
45°	475	495	516	532	540	366
55°	362	390	421	443	451	324
65°	250	284	321	346	355	247
75°	136	176	219	246	257	145
85°	42	85	130	158	167	44
90°	12	61	112	142	152	9
95°	31	114	462	220	194	31
105°	81	138	576	983	906	86
115°	135	178	437	924	1059	134
125°	184	218	393	708	829	164
135°	215	255	371	571	660	166
145°	244	278	356	454	503	153
155°	276	298	345	392	408	127
165°	302	310	330	350	356	85
175°	314	315	317	321	321	30
180°	315	315	315	315	315	



TEST NUMBER: P331978-930

CATALOG NUMBER: S123DIP-S775D805U930-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	783.7	783.7	783.7	783.7	783.7	783.7	783.7	783.7	783.7	783.7	783.7
2.5°	787.1	786.6	786.2	785.7	785.3	784.4	783.3	782.0	780.8	779.6	780.8
5°	784.6	784.2	783.7	783.4	783.0	782.3	781.1	780.0	778.9	777.7	779.3
7.5°	776.8	776.9	777.0	777.1	777.1	776.7	775.5	774.5	773.3	772.3	774.1
10°	770.1	770.4	770.8	771.2	771.5	771.3	770.3	769.4	768.4	767.4	769.4
12.5°	761.8	762.4	762.9	763.4	763.9	763.9	763.3	762.6	762.0	761.3	763.0
15°	747.0	747.5	748.1	748.7	749.3	749.4	749.3	749.1	748.9	748.7	750.6
17.5°	728.2	729.4	730.5	731.6	732.7	733.3	733.2	733.1	733.0	733.0	734.7
20°	714.5	715.7	716.8	718.0	719.1	719.8	720.2	720.6	721.0	721.4	723.1
22.5°	700.2	701.3	702.5	703.6	704.7	705.6	706.1	706.6	707.2	707.7	709.9
25°	674.4	676.3	678.2	680.1	682.0	683.2	683.8	684.4	684.9	685.5	687.9
27.5°	648.5	650.6	652.8	654.9	657.1	658.8	660.0	661.2	662.4	663.7	665.8
30°	630.0	632.5	635.0	637.4	639.8	641.9	643.4	644.9	646.5	647.9	650.2
32.5°	609.5	612.3	615.1	617.8	620.6	623.0	624.9	627.0	628.9	630.9	633.3
35°	580.5	583.5	586.6	589.6	592.6	595.4	597.9	600.3	602.8	605.3	608.1
37.5°	549.8	553.2	556.6	560.0	563.5	566.6	569.7	572.7	575.8	578.8	582.0
40°	529.3	532.7	536.1	539.6	542.9	546.6	550.3	554.2	557.9	561.7	564.9
42.5°	506.7	510.9	515.1	519.3	523.4	527.5	531.4	535.4	539.3	543.3	546.8
45°	474.7	479.2	483.7	488.3	492.8	497.5	502.2	507.0	511.8	516.5	520.1
47.5°	441.0	446.2	451.3	456.5	461.6	466.9	472.4	477.8	483.2	488.6	492.7
50°	419.1	424.4	429.7	435.1	440.4	446.0	451.9	457.8	463.7	469.5	473.9
52.5°	395.9	401.5	407.2	412.8	418.4	424.4	431.0	437.4	443.9	450.4	454.9
55°	362.0	368.2	374.5	380.7	387.0	393.5	400.4	407.2	414.0	420.9	426.0
57.5°	328.8	335.3	341.9	348.4	355.0	361.9	369.4	376.9	384.3	391.8	397.0
60°	305.7	312.4	319.3	326.1	333.0	340.2	348.1	355.8	363.5	371.4	376.7
62.5°	283.7	290.7	297.7	304.7	311.7	319.3	327.5	335.7	344.0	352.2	357.5
65°	250.1	257.6	264.9	272.3	279.7	287.6	296.0	304.3	312.7	321.0	326.7
67.5°	216.0	223.8	231.7	239.5	247.4	255.6	264.1	272.6	281.0	289.6	295.8
70°	192.1	200.2	208.4	216.5	224.7	233.3	242.5	251.5	260.7	269.8	275.8
72.5°	170.2	178.4	186.5	194.7	202.8	211.7	221.0	230.5	239.9	249.2	255.5
75°	135.7	144.6	153.6	162.5	171.4	180.6	190.0	199.6	209.0	218.6	224.8
77.5°	105.7	114.7	123.7	132.6	141.6	150.9	160.5	170.1	179.6	189.1	195.8
80°	84.5	93.8	103.1	112.4	121.7	131.3	141.1	151.0	160.9	170.7	177.2
82.5°	66.0	75.5	85.0	94.4	103.9	113.6	123.6	133.6	143.7	153.7	160.1
85°	41.8	51.3	60.8	70.3	79.7	89.5	99.6	109.7	119.7	129.8	136.2
87.5°	23.0	32.7	42.4	52.2	61.9	71.7	81.8	91.8	101.9	111.9	118.3
90°	12.4	22.9	33.5	44.8	55.3	66.0	77.6	89.2	100.9	112.4	118.2
92.5°	18.3	30.5	44.3	57.6	71.3	89.8	115.9	152.9	189.3	189.1	171.2
95°	31.1	40.4	54.8	73.1	97.0	130.2	193.6	297.9	411.8	462.5	397.0
97.5°	45.3	52.7	64.8	81.0	104.0	138.6	199.3	315.2	498.3	664.1	710.7
100°	54.9	61.6	72.1	87.1	108.4	140.7	194.0	297.1	473.5	677.9	808.9
102.5°	64.9	71.5	80.9	94.8	114.0	143.8	192.5	281.1	439.0	640.7	809.8
105°	80.8	87.2	95.6	107.8	124.5	150.6	193.1	267.0	395.6	576.5	764.8
107.5°	96.9	102.6	110.1	121.6	136.8	160.9	198.9	261.2	366.1	519.3	690.5
110°	108.4	113.7	120.3	130.8	145.0	168.4	204.6	260.7	353.7	486.8	644.1



TEST NUMBER: P331978-930

CATALOG NUMBER: S123DIP-S775D805U930-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	119.6	124.3	130.3	140.1	153.8	176.2	210.1	262.3	344.8	463.3	602.6
115°	134.9	139.7	145.9	154.5	167.6	189.4	220.5	266.2	338.0	437.2	552.1
117.5°	151.0	155.3	159.9	167.1	180.7	200.5	230.9	272.0	333.6	419.1	518.9
120°	161.5	164.4	168.5	175.8	188.9	208.4	237.7	277.0	332.4	410.0	501.1
122.5°	171.2	173.6	177.2	184.7	196.7	217.0	245.3	281.8	332.8	403.0	485.8
125°	184.3	185.5	189.3	196.3	208.5	228.4	256.2	289.8	333.5	393.2	465.4
127.5°	194.8	196.6	201.1	208.0	221.2	240.6	266.7	296.5	335.5	385.8	446.8
130°	201.5	203.2	208.7	216.1	229.3	248.3	273.2	301.3	336.9	380.8	436.1
132.5°	205.9	208.2	214.4	223.6	236.9	255.1	278.7	305.4	337.3	376.9	425.9
135°	214.6	217.0	223.8	233.2	246.4	264.5	286.3	310.1	337.7	371.0	412.1
137.5°	222.8	225.3	232.1	242.1	255.3	271.7	291.9	313.7	337.5	365.5	400.0
140°	227.8	231.0	237.3	247.5	260.2	276.5	295.5	315.3	337.5	362.3	392.6
142.5°	233.9	236.4	243.1	252.2	264.8	279.6	297.7	316.5	336.7	358.6	385.4
145°	243.7	245.4	250.9	260.3	271.0	285.6	302.1	319.4	337.2	356.3	378.2
147.5°	252.8	254.0	259.6	267.8	278.3	290.8	306.0	321.4	337.2	353.9	371.8
150°	259.4	260.1	265.1	273.5	282.3	293.8	308.5	321.9	337.2	351.9	367.8
152.5°	266.0	266.2	271.3	278.6	286.4	297.4	310.1	322.9	335.7	349.3	363.7
155°	276.0	276.0	279.8	286.2	293.2	302.1	313.0	323.2	334.0	344.9	357.6
157.5°	283.9	284.4	287.5	293.1	299.1	306.0	314.6	323.8	331.8	340.9	350.7
160°	290.0	290.0	292.6	297.7	302.1	308.5	316.2	323.8	330.8	337.9	346.1
162.5°	294.6	294.6	296.7	300.8	304.7	310.1	316.7	323.3	328.8	334.8	341.5
165°	301.5	300.8	302.1	305.3	307.9	312.3	317.4	321.9	325.7	330.2	335.3
167.5°	306.7	306.0	306.6	309.0	310.8	313.6	317.3	320.9	322.7	325.6	329.3
170°	309.8	308.5	309.2	311.0	312.3	313.6	316.8	319.4	320.7	322.5	325.7
172.5°	311.9	311.0	311.2	312.6	313.3	314.1	316.8	318.9	319.1	320.0	322.1
175°	314.2	313.6	313.0	314.2	314.2	314.9	316.2	317.4	316.8	316.8	318.0
177.5°	315.4	314.9	314.4	314.9	314.9	314.9	315.4	316.4	315.4	314.9	315.4
180°	314.9	314.9	314.9	314.9	314.9	314.9	314.9	314.9	314.9	314.9	314.9



TEST NUMBER: P331978-930

CATALOG NUMBER: S123DIP-S775D805U930-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	783.7	783.7	783.7	783.7	783.7	783.7	783.7	783.7
2.5°	782.0	783.3	784.4	785.0	784.8	784.6	784.5	784.4
5°	780.7	782.3	783.7	784.4	784.2	784.1	783.9	783.7
7.5°	776.0	778.0	779.8	780.6	780.4	780.2	780.0	779.8
10°	771.3	773.1	775.0	775.8	775.4	775.0	774.7	774.3
12.5°	764.8	766.5	768.3	769.0	768.6	768.3	767.8	767.4
15°	752.4	754.4	756.3	757.1	756.9	756.8	756.5	756.4
17.5°	736.4	738.1	739.8	740.5	740.3	740.0	739.7	739.5
20°	724.8	726.5	728.2	729.1	729.4	729.5	729.7	729.9
22.5°	712.0	714.2	716.3	717.4	717.3	717.1	717.1	716.9
25°	690.5	692.9	695.4	696.6	696.6	696.6	696.6	696.6
27.5°	667.9	670.0	672.1	673.3	673.4	673.6	673.8	673.9
30°	652.5	654.8	657.0	658.2	658.2	658.2	658.2	658.2
32.5°	635.7	638.1	640.6	642.0	642.5	642.9	643.4	643.8
35°	611.0	613.8	616.6	618.5	619.2	620.0	620.7	621.5
37.5°	585.2	588.5	591.7	593.6	594.2	594.8	595.4	596.1
40°	568.2	571.4	574.6	576.6	577.4	578.1	578.9	579.7
42.5°	550.3	553.8	557.4	559.7	560.8	561.8	562.9	563.9
45°	523.7	527.3	530.9	533.5	535.0	536.5	538.0	539.6
47.5°	496.8	500.8	504.9	507.5	508.7	509.9	511.0	512.2
50°	478.3	482.6	487.0	489.8	491.1	492.4	493.8	495.1
52.5°	459.4	464.0	468.5	471.6	473.2	474.8	476.5	478.1
55°	431.1	436.3	441.3	444.7	446.2	447.7	449.2	450.8
57.5°	402.2	407.3	412.5	416.0	417.8	419.6	421.3	423.1
60°	382.0	387.3	392.6	396.3	398.4	400.5	402.6	404.6
62.5°	362.9	368.2	373.5	377.1	379.0	381.0	382.9	384.8
65°	332.4	338.0	343.7	347.6	349.4	351.3	353.3	355.1
67.5°	302.0	308.3	314.5	318.4	319.9	321.6	323.2	324.7
70°	281.9	288.0	294.1	298.0	299.9	301.8	303.7	305.7
72.5°	261.7	267.9	274.2	278.3	280.1	282.0	283.9	285.8
75°	231.1	237.3	243.6	247.9	250.1	252.4	254.7	257.0
77.5°	202.4	209.0	215.6	219.7	221.5	223.2	225.0	226.7
80°	183.6	190.0	196.6	200.7	202.6	204.5	206.4	208.3
82.5°	166.6	173.0	179.4	183.6	185.6	187.4	189.3	191.2
85°	142.7	149.1	155.6	159.7	161.6	163.5	165.4	167.3
87.5°	124.8	131.4	138.0	142.4	144.2	146.3	148.2	150.0
90°	125.3	132.4	139.5	145.0	146.2	148.7	151.2	152.5
92.5°	157.3	152.5	153.8	154.5	155.1	154.9	157.4	157.9
95°	325.7	257.7	229.8	210.8	200.5	196.7	194.1	193.5
97.5°	661.7	553.5	477.0	404.5	359.3	332.6	317.2	313.6
100°	836.8	790.7	721.6	634.8	572.3	527.7	504.7	507.2
102.5°	892.0	895.8	857.6	803.9	755.7	720.7	701.8	689.1
105°	903.3	972.3	989.8	976.7	949.1	926.6	907.9	906.4
107.5°	846.6	955.2	1016.2	1042.2	1044.4	1037.9	1032.7	1028.5
110°	795.0	917.2	1002.4	1050.3	1069.7	1076.3	1076.5	1076.8



TEST NUMBER: P331978-930

CATALOG NUMBER: S123DIP-S775D805U930-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	743.1	867.8	962.5	1023.1	1057.4	1074.9	1081.4	1083.4
115°	674.6	790.0	888.3	960.7	1010.1	1039.7	1053.9	1058.7
117.5°	623.0	723.3	811.9	885.4	936.7	970.4	990.2	996.0
120°	595.3	685.7	766.5	833.8	885.5	922.5	939.1	944.3
122.5°	572.7	654.8	729.9	792.5	838.5	872.0	890.1	896.3
125°	542.0	615.5	680.7	734.3	776.4	805.8	823.0	828.8
127.5°	514.5	580.2	639.2	688.1	725.8	751.0	766.7	772.1
130°	497.0	558.0	613.3	658.9	693.9	718.0	732.5	738.7
132.5°	480.5	536.8	588.3	632.0	665.0	689.3	702.4	707.3
135°	458.2	506.9	551.7	590.2	622.4	642.5	654.8	660.3
137.5°	437.6	477.7	516.3	549.8	577.0	597.4	608.0	611.9
140°	425.3	460.7	494.2	523.4	548.6	567.4	578.5	578.9
142.5°	413.4	443.8	472.9	498.5	520.0	536.8	546.9	547.2
145°	400.1	422.7	444.6	464.2	480.9	495.0	500.9	503.0
147.5°	389.5	406.7	423.5	437.2	450.0	459.7	465.3	466.5
150°	382.5	397.1	410.5	422.8	432.8	440.1	444.3	444.7
152.5°	376.8	389.5	401.3	411.4	419.1	425.6	428.0	428.0
155°	368.4	378.6	388.2	395.8	401.5	406.7	408.0	408.5
157.5°	359.5	368.0	375.4	381.4	386.4	390.2	391.3	391.1
160°	354.4	361.4	367.8	372.3	376.7	380.5	380.5	379.9
162.5°	348.3	354.2	360.1	364.1	367.0	370.3	370.3	369.7
165°	340.4	344.2	348.7	351.9	354.4	356.9	356.3	356.3
167.5°	333.5	336.4	339.0	341.3	342.4	344.2	343.6	343.6
170°	328.9	330.8	333.4	334.7	335.3	336.6	335.9	335.9
172.5°	324.8	326.2	328.2	329.1	329.1	330.4	329.3	328.8
175°	319.4	320.0	321.2	321.2	321.2	321.9	321.2	320.7
177.5°	315.9	316.4	316.9	316.9	316.4	316.9	315.9	315.9
180°	314.9	314.9	314.9	314.9	314.9	314.9	314.9	314.9

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