

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: P331968-930

Luminaire Tested: **S123DIP-S775D585U930-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331968-930
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-9,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DIP-S775D585U930-4F0-1E-UDD-D1
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 775 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 585 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4275.5 lumens
Efficiency: N/A
Efficacy: 106.1 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

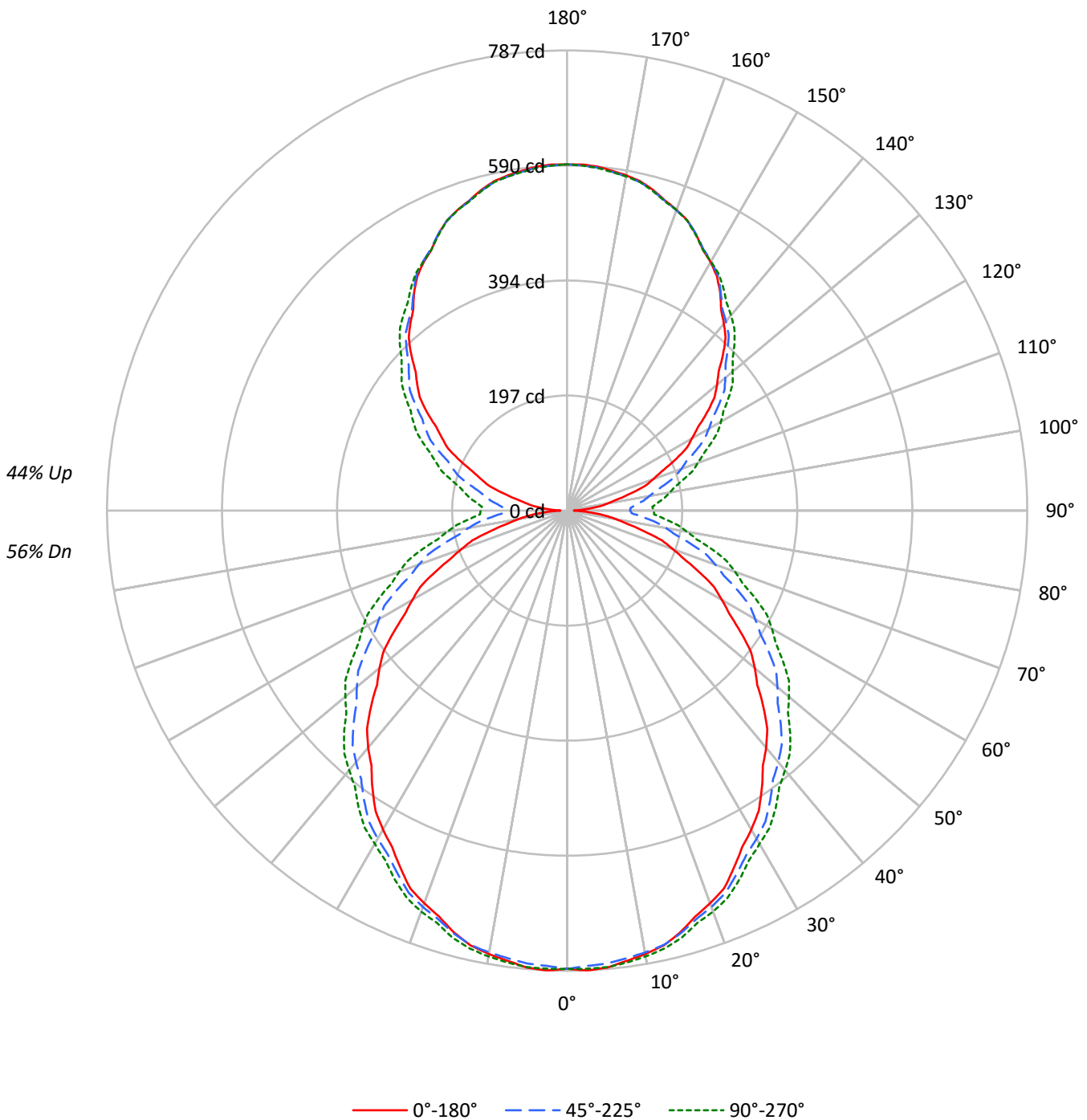
Input Watts (W): 40.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P331968-930

CATALOG NUMBER: S123DIP-S775D585U930-4F0-1E-UDD-D1

Luminous Intensity Polar Plot





TEST NUMBER: P331968-930

CATALOG NUMBER: S123DIP-S775D585U930-4F0-1E-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	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62	56
1	98	93	89	85	91	87	83	79	74	72	69	63	61	59	53	51	50	45
2	89	81	74	68	82	75	69	64	65	60	56	55	52	49	46	43	41	37
3	81	71	63	56	75	66	59	53	57	51	47	48	44	41	40	37	35	31
4	74	62	54	47	68	58	51	45	50	44	40	43	38	34	36	32	30	26
5	68	55	47	40	62	52	44	38	45	39	34	38	33	30	32	28	26	22
6	62	50	41	35	58	46	39	33	40	34	29	34	30	26	29	25	22	19
7	57	45	36	31	53	42	34	29	36	30	26	31	26	23	27	23	20	17
8	53	41	33	27	49	38	31	26	33	27	23	29	24	20	24	21	18	15
9	50	37	29	24	46	35	28	23	30	25	20	26	22	18	22	19	16	14
10	46	34	26	22	43	32	25	20	28	22	18	24	20	16	21	17	14	12

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: P331968-930

CATALOG NUMBER: S123DIP-S775D585U930-4F0-1E-UDD-D1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.3	1.7
10°-20°	211.8	5.0
20°-30°	316.7	7.4
30°-40°	378.3	8.8
40°-50°	395.8	9.3
50°-60°	371.4	8.7
60°-70°	310.2	7.3
70°-80°	221.9	5.2
80°-90°	134.1	3.1
90°-100°	121.6	2.8
100°-110°	176.5	4.1
110°-120°	237.1	5.5
120°-130°	281.5	6.6
130°-140°	300.7	7.0
140°-150°	287.6	6.7
150°-160°	240.2	5.6
160°-170°	159.9	3.7
170°-180°	56.0	1.3
0°-30°	602.8	14.1
0°-40°	981.1	22.9
0°-60°	1748.2	40.9
0°-90°	2414.4	56.5
90°-120°	535.1	12.5
90°-150°	1404.9	32.9
90°-180°	1861.0	43.5
0°-180°	4275.5	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	58	108	137	148	9
95°	37	74	119	146	156	38
105°	112	134	174	197	206	119
115°	202	215	243	264	271	200
125°	292	294	317	332	337	260
135°	377	379	388	401	405	290
145°	456	456	458	464	466	285
155°	521	521	522	523	520	240
165°	568	566	566	569	566	160
175°	591	589	589	591	588	56
180°	592	592	592	592	592	



TEST NUMBER: P331968-930

CATALOG NUMBER: S123DIP-S775D585U930-4F0-1E-UDD-D1

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°	22.8	32.4	42.1	51.8	61.4	71.2	81.1	91.1	101.0	111.0	117.5
90°	11.6	21.9	32.2	42.6	52.9	63.6	74.6	85.6	96.6	107.6	114.5
92.5°	21.7	30.7	39.9	48.9	58.0	67.7	78.0	88.3	98.6	108.8	115.5
95°	36.9	44.9	53.1	61.2	69.3	78.4	88.5	98.7	108.8	119.0	125.2
97.5°	57.1	64.3	71.5	78.8	85.9	94.3	103.8	113.2	122.7	132.2	138.4
100°	70.9	77.6	84.3	91.0	97.7	105.7	114.9	124.2	133.4	142.6	148.5
102.5°	87.0	92.9	98.7	104.5	110.3	117.9	127.1	136.4	145.6	154.9	160.5
105°	111.5	116.3	121.0	125.7	130.5	137.5	146.5	155.6	164.7	173.7	179.1
107.5°	139.1	143.1	147.1	151.1	155.1	161.1	169.3	177.3	185.5	193.6	199.0
110°	156.3	159.9	163.5	167.1	170.7	176.4	184.3	192.0	199.8	207.7	213.0



TEST NUMBER: P331968-930

CATALOG NUMBER: S123DIP-S775D585U930-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	174.9	177.8	180.8	183.7	186.6	191.7	199.0	206.4	213.7	221.0	226.3
115°	201.9	204.5	207.1	209.7	212.2	216.9	223.5	230.1	236.8	243.4	248.0
117.5°	229.8	231.5	233.0	234.6	236.3	240.2	246.3	252.4	258.6	264.7	269.2
120°	246.6	248.2	249.8	251.4	252.9	256.6	262.3	268.1	273.8	279.6	283.8
122.5°	264.9	265.8	266.8	267.7	268.6	272.0	277.7	283.3	289.0	294.7	298.6
125°	291.8	292.1	292.4	292.8	293.0	295.9	301.2	306.5	311.8	317.1	320.6
127.5°	317.5	318.0	318.5	318.9	319.4	321.8	326.1	330.4	334.8	339.1	342.3
130°	334.6	335.3	335.9	336.5	337.1	339.2	342.7	346.2	349.7	353.1	356.4
132.5°	351.1	351.8	352.6	353.4	354.2	356.0	358.8	361.6	364.4	367.2	370.1
135°	377.0	377.4	377.9	378.3	378.7	379.9	381.9	383.9	385.9	387.8	390.9
137.5°	401.0	401.4	401.7	402.1	402.4	403.4	404.8	406.3	407.7	409.1	411.7
140°	417.0	417.6	418.1	418.6	419.1	419.7	420.4	421.1	421.8	422.4	425.2
142.5°	432.4	432.7	433.1	433.4	433.7	434.1	434.4	434.7	435.0	435.3	437.7
145°	456.2	456.2	456.2	456.2	456.2	456.3	456.6	457.0	457.3	457.6	459.0
147.5°	476.1	476.5	476.9	477.2	477.6	477.9	478.3	478.5	478.8	479.1	479.6
150°	490.6	490.8	491.1	491.2	491.5	491.6	491.9	492.0	492.3	492.4	492.4
152.5°	502.6	502.8	503.1	503.4	503.7	503.9	504.0	504.1	504.3	504.3	504.5
155°	521.3	521.3	521.3	521.3	521.3	521.4	521.5	521.5	521.7	521.8	522.2
157.5°	537.3	537.2	537.0	537.0	536.8	536.8	536.9	537.0	537.0	537.1	537.5
160°	547.3	547.1	546.9	546.7	546.5	546.4	546.4	546.4	546.4	546.4	546.9
162.5°	556.3	556.0	555.7	555.4	555.1	555.1	555.1	555.2	555.3	555.4	555.9
165°	567.8	567.5	567.2	566.9	566.6	566.4	566.4	566.4	566.4	566.4	567.0
167.5°	577.0	576.6	576.2	575.8	575.4	575.2	575.3	575.4	575.4	575.5	576.2
170°	582.2	581.8	581.4	581.0	580.6	580.3	580.3	580.3	580.3	580.3	581.1
172.5°	586.3	585.9	585.5	585.1	584.7	584.5	584.5	584.5	584.5	584.5	585.1
175°	590.6	590.2	589.8	589.4	589.0	588.7	588.7	588.7	588.7	588.7	589.4
177.5°	592.4	592.1	591.7	591.3	591.0	590.8	590.8	590.8	590.8	590.8	591.3
180°	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0



TEST NUMBER: P331968-930

CATALOG NUMBER: S123DIP-S775D585U930-4F0-1E-UDD-D1

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°	124.1	130.6	137.1	141.4	143.3	145.2	147.2	149.1
90°	121.3	128.2	135.1	139.6	141.7	143.7	145.9	148.0
92.5°	122.1	128.7	135.3	139.5	141.1	142.8	144.4	146.0
95°	131.5	137.8	144.1	148.2	150.1	152.0	153.9	155.8
97.5°	144.5	150.6	156.7	160.7	162.6	164.4	166.3	168.1
100°	154.3	160.0	165.9	169.8	171.9	174.1	176.2	178.2
102.5°	166.2	171.9	177.6	181.3	183.1	185.0	186.9	188.7
105°	184.4	189.7	195.0	198.6	200.6	202.4	204.4	206.3
107.5°	204.4	209.8	215.2	218.7	220.2	221.8	223.3	224.9
110°	218.3	223.6	229.0	232.4	233.7	235.0	236.3	237.6



TEST NUMBER: P331968-930

CATALOG NUMBER: S123DIP-S775D585U930-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	231.5	236.8	242.1	245.6	247.2	248.8	250.5	252.1
115°	252.7	257.3	262.0	265.0	266.4	267.8	269.3	270.7
117.5°	273.7	278.2	282.7	285.5	286.7	287.9	289.1	290.3
120°	288.0	292.3	296.6	299.3	300.4	301.5	302.6	303.8
122.5°	302.6	306.6	310.5	313.0	314.1	315.0	316.1	317.2
125°	324.2	327.8	331.3	333.5	334.4	335.4	336.3	337.2
127.5°	345.4	348.6	351.8	353.8	354.6	355.4	356.2	357.0
130°	359.5	362.7	365.9	367.7	368.1	368.5	368.9	369.3
132.5°	373.2	376.1	379.0	380.9	381.6	382.4	383.1	383.8
135°	393.9	396.9	399.8	401.7	402.5	403.2	404.0	404.7
137.5°	414.3	416.9	419.4	420.9	421.5	422.1	422.7	423.2
140°	427.9	430.6	433.4	434.9	435.1	435.3	435.5	435.8
142.5°	440.2	442.6	445.1	446.5	446.9	447.3	447.7	448.0
145°	460.4	461.9	463.3	464.1	464.5	464.8	465.2	465.5
147.5°	480.0	480.5	480.9	481.2	481.2	481.3	481.4	481.4
150°	492.4	492.4	492.4	492.4	492.1	491.9	491.6	491.4
152.5°	504.8	504.9	505.1	504.9	504.4	503.9	503.5	503.0
155°	522.6	523.0	523.4	523.3	522.5	521.8	521.1	520.4
157.5°	538.0	538.4	538.8	538.7	538.2	537.6	537.0	536.5
160°	547.5	548.0	548.5	548.5	548.1	547.7	547.3	546.9
162.5°	556.4	556.9	557.4	557.3	556.7	556.0	555.4	554.7
165°	567.7	568.3	568.9	568.8	568.1	567.4	566.7	566.0
167.5°	576.8	577.5	578.1	578.1	577.5	576.8	576.2	575.5
170°	581.8	582.5	583.3	583.3	582.5	581.8	581.1	580.3
172.5°	585.7	586.4	587.0	587.0	586.3	585.5	584.8	584.1
175°	590.0	590.6	591.3	591.2	590.4	589.7	589.0	588.2
177.5°	591.9	592.4	592.9	592.8	592.2	591.7	591.1	590.5
180°	592.0	592.0	592.0	592.0	592.0	592.0	592.0	592.0

(END OF REPORT)