

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: P331967-930

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331967-930
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-5,
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-D
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 775 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 585 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4544.0 lumens
Efficiency: N/A
Efficacy: 112.8 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

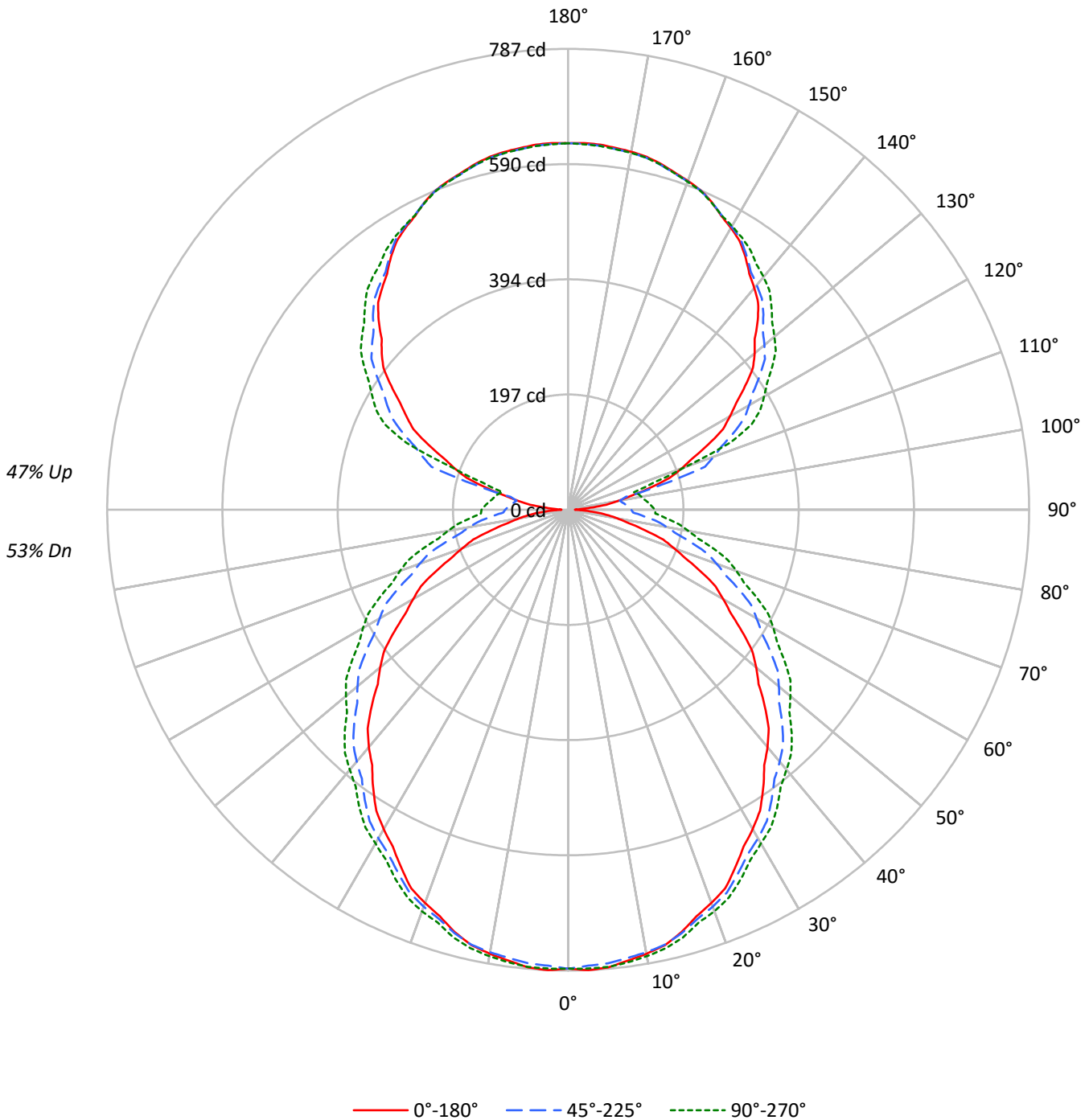
Input Watts (W): 40.3
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P331967-930

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

Luminous Intensity Polar Plot





TEST NUMBER: P331967-930

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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	108	108	108	108	100	100	100	100	85	85	85	71	71	71	59	59	59	53
1	97	93	88	84	90	86	82	79	73	70	68	61	59	57	50	49	48	42
2	88	80	74	68	81	74	68	64	63	59	55	53	50	47	44	41	39	35
3	80	70	62	56	74	65	58	53	55	50	46	47	43	39	38	35	33	29
4	73	62	54	47	67	57	50	44	49	43	39	41	37	33	34	31	28	24
5	67	55	46	40	62	51	44	38	44	38	33	37	32	29	31	27	24	21
6	62	49	41	35	57	46	38	33	39	33	29	33	29	25	28	24	21	18
7	57	44	36	30	53	41	34	29	36	30	25	30	26	22	25	22	19	16
8	53	40	32	27	49	38	30	25	32	27	22	28	23	20	23	20	17	14
9	49	37	29	24	45	34	27	23	30	24	20	25	21	18	21	18	15	13
10	46	34	26	21	43	31	25	20	27	22	18	23	19	16	20	16	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: P331967-930

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

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.3	1.6
10°-20°	211.8	4.7
20°-30°	316.7	7.0
30°-40°	378.3	8.3
40°-50°	395.8	8.7
50°-60°	371.4	8.2
60°-70°	310.2	6.8
70°-80°	221.9	4.9
80°-90°	134.1	3.0
90°-100°	105.8	2.3
100°-110°	169.5	3.7
110°-120°	301.3	6.6
120°-130°	355.0	7.8
130°-140°	364.9	8.0
140°-150°	333.7	7.3
150°-160°	267.4	5.9
160°-170°	172.6	3.8
170°-180°	59.5	1.3
0°-30°	602.8	13.3
0°-40°	981.1	21.6
0°-60°	1748.2	38.5
0°-90°	2414.4	53.1
90°-120°	576.5	12.7
90°-150°	1630.1	35.9
90°-180°	2130.0	46.9
0°-180°	4544.0	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	58	108	137	148	9
95°	38	54	99	127	137	42
105°	145	169	166	111	116	154
115°	264	278	312	336	346	261
125°	369	374	399	418	425	330
135°	458	460	471	487	491	352
145°	527	530	531	538	542	330
155°	580	579	579	581	579	267
165°	612	610	610	613	610	173
175°	626	624	624	627	624	60
180°	626	626	626	626	626	



TEST NUMBER: P331967-930

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

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°	19.1	27.1	35.2	43.4	51.4	60.7	71.3	81.9	92.4	102.9	109.9
95°	37.7	40.9	44.1	47.2	50.4	57.2	67.7	78.1	88.5	98.9	105.5
97.5°	65.4	70.1	74.9	79.7	84.5	87.6	89.0	90.5	91.9	93.4	99.8
100°	86.3	94.4	102.6	110.7	118.8	119.2	111.8	104.4	97.0	89.6	96.0
102.5°	110.1	117.1	124.0	131.0	137.9	136.9	127.8	118.9	109.8	100.8	103.5
105°	145.4	151.1	156.8	162.5	168.2	170.4	169.3	168.1	167.0	165.8	152.9
107.5°	181.7	186.5	191.4	196.1	200.9	207.9	217.1	226.3	235.5	244.7	236.4
110°	206.0	210.3	214.5	218.7	223.0	229.4	238.1	246.9	255.6	264.3	265.9



TEST NUMBER: P331967-930

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

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	229.8	233.3	236.9	240.4	244.0	250.0	258.4	266.8	275.2	283.7	288.5
115°	264.2	267.1	270.0	272.9	275.8	281.1	288.9	296.6	304.4	312.2	317.7
117.5°	298.2	300.4	302.5	304.7	306.9	311.4	318.3	325.1	332.1	338.9	344.3
120°	318.7	320.6	322.5	324.3	326.2	330.4	337.0	343.6	350.2	356.7	361.9
122.5°	340.3	341.5	342.8	344.1	345.3	349.1	355.5	361.8	368.2	374.5	379.3
125°	369.0	369.8	370.6	371.5	372.3	375.7	381.6	387.5	393.4	399.3	403.5
127.5°	397.6	398.3	398.9	399.6	400.1	403.0	408.1	413.1	418.2	423.2	427.3
130°	415.5	416.1	416.8	417.4	418.0	420.4	424.7	428.8	433.1	437.3	441.3
132.5°	431.9	432.7	433.5	434.3	435.0	437.2	440.5	443.8	447.3	450.6	454.4
135°	457.9	458.3	458.8	459.2	459.6	461.1	463.6	466.1	468.6	471.1	474.8
137.5°	480.0	480.7	481.3	481.9	482.6	483.6	485.0	486.4	487.8	489.2	492.7
140°	494.2	494.9	495.5	496.1	496.7	497.5	498.3	499.2	500.1	501.0	504.3
142.5°	508.0	508.5	508.9	509.4	509.9	510.3	510.7	511.2	511.6	512.0	514.9
145°	527.3	527.7	528.3	528.9	529.4	529.8	529.9	530.2	530.4	530.6	532.3
147.5°	544.5	545.0	545.5	545.9	546.4	546.7	547.0	547.1	547.4	547.6	548.3
150°	555.7	556.0	556.3	556.6	556.9	557.2	557.4	557.6	557.8	558.0	558.2
152.5°	565.7	565.9	566.0	566.1	566.3	566.5	566.6	566.7	566.8	567.0	567.3
155°	579.8	579.7	579.4	579.3	579.0	579.0	579.1	579.2	579.3	579.4	579.9
157.5°	590.8	590.8	590.8	590.8	590.8	590.7	590.6	590.5	590.4	590.3	590.9
160°	597.5	597.5	597.4	597.2	597.1	597.0	596.9	596.8	596.7	596.6	597.2
162.5°	603.9	603.6	603.3	603.1	602.8	602.6	602.5	602.4	602.3	602.2	602.9
165°	611.5	611.1	610.9	610.6	610.3	610.0	609.9	609.8	609.8	609.6	610.5
167.5°	617.4	617.0	616.6	616.2	615.8	615.6	615.6	615.6	615.6	615.6	616.4
170°	620.8	620.4	620.0	619.5	619.1	618.9	618.9	618.9	618.9	618.9	619.8
172.5°	623.1	622.6	622.0	621.5	621.0	620.9	620.9	621.0	621.1	621.2	622.0
175°	625.9	625.4	624.8	624.4	623.9	623.6	623.7	623.9	623.9	624.0	624.8
177.5°	626.6	626.2	625.8	625.4	625.0	624.8	624.9	625.0	625.1	625.2	625.8
180°	625.9	625.9	625.9	625.9	625.9	625.9	625.9	625.9	625.9	625.9	625.9



TEST NUMBER: P331967-930

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

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°	116.8	123.8	130.8	135.2	137.1	138.9	140.8	142.7
95°	112.1	118.7	125.3	129.6	131.5	133.4	135.3	137.2
97.5°	106.3	112.8	119.3	123.5	125.5	127.5	129.5	131.5
100°	102.2	108.6	115.0	119.1	121.1	123.1	125.1	127.1
102.5°	106.3	109.2	111.9	114.4	116.4	118.5	120.6	122.7
105°	139.9	126.9	114.0	108.4	110.3	112.3	114.1	116.1
107.5°	228.0	219.7	211.4	201.1	189.1	176.9	164.9	152.7
110°	267.4	268.9	270.4	264.6	251.4	238.1	224.8	211.6



TEST NUMBER: P331967-930

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

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	293.3	298.2	303.0	304.8	303.3	301.8	300.4	299.0
115°	323.3	328.9	334.5	338.3	340.2	342.1	344.1	346.0
117.5°	349.6	355.0	360.3	363.7	365.3	366.9	368.4	370.0
120°	367.1	372.3	377.5	380.7	382.0	383.4	384.7	386.0
122.5°	384.1	388.9	393.6	396.7	398.2	399.6	401.0	402.4
125°	407.7	411.9	416.1	419.0	420.4	422.0	423.5	425.1
127.5°	431.4	435.5	439.5	442.1	443.2	444.3	445.4	446.5
130°	445.3	449.3	453.4	455.8	456.7	457.7	458.6	459.6
132.5°	458.4	462.2	466.1	468.6	469.5	470.5	471.5	472.5
135°	478.5	482.2	486.0	488.1	488.8	489.4	490.1	490.7
137.5°	496.2	499.7	503.2	505.3	506.1	506.8	507.5	508.3
140°	507.5	510.8	514.0	516.0	516.7	517.5	518.2	519.0
142.5°	517.7	520.7	523.5	525.3	525.9	526.6	527.3	527.9
145°	534.0	535.7	537.4	538.7	539.5	540.2	541.0	541.8
147.5°	548.9	549.6	550.2	550.7	550.9	551.1	551.3	551.5
150°	558.4	558.6	558.8	559.0	559.1	559.1	559.2	559.3
152.5°	567.7	568.0	568.4	568.4	568.0	567.6	567.2	566.8
155°	580.4	581.0	581.5	581.4	580.8	580.2	579.6	578.9
157.5°	591.5	592.2	592.8	592.6	591.8	591.1	590.3	589.5
160°	597.9	598.4	599.1	599.0	598.3	597.6	596.9	596.1
162.5°	603.6	604.3	605.0	605.0	604.4	603.7	603.1	602.5
165°	611.3	612.1	612.9	613.0	612.3	611.6	610.8	610.1
167.5°	617.3	618.1	618.9	618.9	618.1	617.3	616.4	615.6
170°	620.6	621.4	622.2	622.2	621.4	620.6	619.8	618.9
172.5°	622.8	623.6	624.4	624.4	623.5	622.6	621.7	620.8
175°	625.5	626.2	627.0	626.9	626.1	625.3	624.4	623.5
177.5°	626.5	627.1	627.8	627.7	626.9	626.1	625.3	624.4
180°	625.9	625.9	625.9	625.9	625.9	625.9	625.9	625.9

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