

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: P331503-927

Luminaire Tested: **S122DIW-S485D710U927-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P331503-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-2,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122DIW-S485D710U927-4F0-1E-UDD-D
Description: DEFINE 2 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 485 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 710 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3805.3 lumens
Efficiency: N/A
Efficacy: 101.2 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: Semi-Indirect

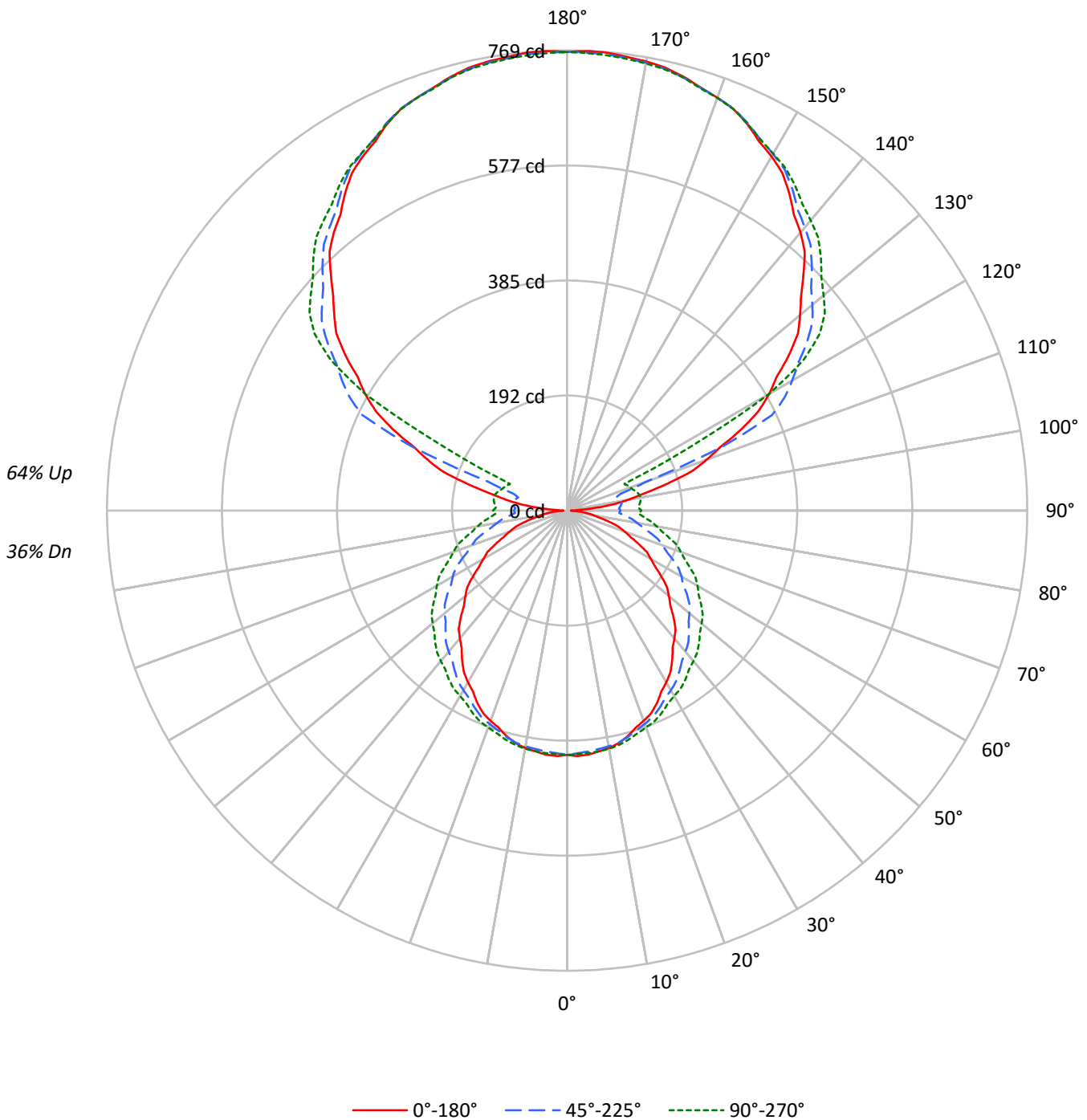
Input Watts (W): 37.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P331503-927

CATALOG NUMBER: S122DIW-S485D710U927-4F0-1E-UDD-D

Luminous Intensity Polar Plot





TEST NUMBER: P331503-927

CATALOG NUMBER: S122DIW-S485D710U927-4F0-1E-UDD-D

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	104	104	104	104	94	94	94	94	76	76	76	59	59	59	44	44	44	36
1	94	89	85	81	84	80	77	74	65	62	60	50	48	47	37	36	35	28
2	85	77	71	65	76	70	64	59	56	52	49	43	41	38	32	30	28	23
3	77	67	60	54	69	61	54	49	49	44	40	38	35	32	28	26	24	19
4	70	59	51	45	63	54	47	41	43	38	34	34	30	27	25	22	20	16
5	64	53	44	38	58	48	40	35	39	33	29	30	26	23	22	19	17	14
6	59	47	39	33	53	43	35	30	35	29	25	27	23	20	20	17	15	12
7	55	42	34	29	49	38	31	26	31	26	22	24	20	18	18	15	13	10
8	50	38	30	25	45	35	28	23	28	23	19	22	18	15	17	14	12	9
9	47	35	27	22	42	32	25	20	26	21	17	20	17	14	15	13	11	8
10	44	32	24	20	39	29	23	18	24	19	15	19	15	12	14	11	10	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6591	6591	6591
5°	6623	6345	6320
10°	6581	6158	6088
15°	6491	5959	5843
20°	6376	5745	5607
25°	6263	5540	5394
30°	6103	5330	5178
35°	5943	5127	5028
40°	5773	4954	4876
45°	5612	4799	4746
50°	5439	4657	4618
55°	5257	4507	4488
60°	5033	4351	4351
65°	4802	4169	4189
70°	4546	3970	4013
75°	4214	3778	3850
80°	3692	3579	3685
85°	3187	3410	3559



TEST NUMBER: P331503-927

CATALOG NUMBER: S122DIW-S485D710U927-4F0-1E-UDD-D

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.7	1.0
10°-20°	110.9	2.9
20°-30°	168.1	4.4
30°-40°	204.7	5.4
40°-50°	220.3	5.8
50°-60°	213.9	5.6
60°-70°	186.8	4.9
70°-80°	143.8	3.8
80°-90°	98.4	2.6
90°-100°	92.0	2.4
100°-110°	142.3	3.7
110°-120°	282.7	7.4
120°-130°	431.6	11.3
130°-140°	447.5	11.8
140°-150°	410.2	10.8
150°-160°	328.8	8.6
160°-170°	211.9	5.6
170°-180°	72.9	1.9
0°-30°	317.7	8.3
0°-40°	522.4	13.7
0°-60°	956.6	25.1
0°-90°	1385.5	36.4
90°-120°	517.0	13.6
90°-150°	1806.3	47.5
90°-180°	2420.0	63.6
0°-180°	3805.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	408	408	408	408	408	
5°	409	408	404	407	407	39
15°	390	392	392	397	396	110
25°	355	359	364	371	373	163
35°	306	316	327	340	344	191
45°	251	267	288	305	312	194
55°	192	214	244	265	273	172
65°	131	161	195	219	227	130
75°	73	106	144	168	177	77
85°	21	58	96	120	129	23
90°	6	47	89	115	124	6
95°	41	52	90	114	121	48
105°	172	197	85	110	120	184
115°	321	339	378	150	105	316
125°	452	460	489	508	516	403
135°	558	567	578	595	600	431
145°	647	647	656	663	664	405
155°	713	708	714	717	713	328
165°	751	748	749	753	749	212
175°	768	764	765	769	764	73
180°	766	766	766	766	766	



TEST NUMBER: P331503-927

CATALOG NUMBER: S122DIW-S485D710U927-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	408.2	408.2	408.2	408.2	408.2	408.2	408.2	408.2	408.2	408.2	408.2
2.5°	410.6	410.3	410.0	409.6	409.3	408.8	408.1	407.3	406.6	405.8	406.4
5°	409.4	409.0	408.6	408.2	407.8	407.3	406.5	405.7	404.9	404.1	404.9
7.5°	405.8	405.4	405.2	405.0	404.7	404.3	403.6	403.1	402.4	401.8	402.7
10°	402.9	402.7	402.3	402.1	401.9	401.6	401.2	400.8	400.4	400.0	401.0
12.5°	398.2	398.2	398.3	398.3	398.4	398.2	398.0	397.7	397.4	397.1	398.2
15°	390.5	390.7	391.0	391.3	391.5	391.7	391.7	391.7	391.7	391.7	392.8
17.5°	380.6	381.1	381.7	382.2	382.8	383.3	383.7	384.0	384.5	384.9	386.1
20°	373.9	374.5	375.3	375.9	376.5	377.2	377.6	378.2	378.7	379.2	380.6
22.5°	366.8	367.6	368.4	369.1	369.9	370.6	371.4	372.1	372.8	373.6	375.0
25°	355.0	355.9	356.8	357.7	358.6	359.7	360.9	362.1	363.3	364.4	366.0
27.5°	340.8	342.3	343.8	345.3	346.7	348.2	349.6	351.0	352.4	353.8	355.8
30°	331.3	333.0	334.7	336.4	338.2	339.8	341.6	343.3	345.0	346.7	348.8
32.5°	320.9	322.8	324.7	326.7	328.6	330.6	332.6	334.6	336.6	338.7	341.0
35°	305.9	308.1	310.4	312.6	314.8	317.2	319.6	322.2	324.6	327.2	330.0
37.5°	289.5	292.2	294.7	297.3	299.8	302.8	306.0	309.2	312.4	315.7	318.9
40°	278.7	281.5	284.5	287.3	290.3	293.4	297.0	300.6	304.1	307.7	311.1
42.5°	268.2	271.2	274.0	276.9	279.8	283.3	287.4	291.4	295.6	299.6	303.3
45°	250.9	254.4	257.9	261.5	265.1	269.1	273.7	278.3	283.0	287.6	291.6
47.5°	233.7	237.6	241.5	245.3	249.1	253.8	259.2	264.6	270.0	275.4	279.6
50°	221.9	225.9	230.0	234.1	238.1	243.1	249.1	255.0	260.9	266.8	271.3
52.5°	210.5	214.8	219.0	223.4	227.7	232.9	239.2	245.3	251.6	257.9	262.4
55°	192.3	197.0	201.8	206.4	211.2	217.0	223.9	230.7	237.5	244.3	249.1
57.5°	174.3	179.7	185.0	190.3	195.7	201.8	208.7	215.7	222.7	229.7	234.8
60°	161.5	167.2	172.9	178.5	184.1	190.7	198.2	205.7	213.2	220.7	225.7
62.5°	150.1	156.0	161.9	167.8	173.6	180.3	187.7	195.3	202.8	210.2	215.6
65°	131.3	137.8	144.3	150.7	157.1	164.2	172.0	179.7	187.5	195.3	200.7
67.5°	114.1	120.8	127.5	134.3	141.0	148.3	156.3	164.2	172.1	180.1	185.5
70°	101.8	108.6	115.4	122.2	129.1	136.6	144.7	152.9	161.1	169.2	174.8
72.5°	90.4	97.4	104.5	111.5	118.6	126.3	134.5	142.8	151.0	159.2	164.9
75°	72.8	80.2	87.5	94.8	102.2	110.1	118.5	126.9	135.4	143.8	149.4
77.5°	55.8	63.5	71.1	78.8	86.6	94.7	103.2	111.8	120.3	128.9	134.5
80°	44.4	52.4	60.4	68.4	76.4	84.8	93.3	101.8	110.4	118.9	124.5
82.5°	34.9	42.9	50.7	58.6	66.5	74.9	83.5	92.1	100.8	109.5	114.9
85°	21.3	29.5	37.6	45.8	53.9	62.2	70.6	79.0	87.5	95.9	101.4
87.5°	11.7	19.8	27.9	36.0	44.1	52.5	61.1	69.7	78.3	86.9	92.4
90°	6.5	15.4	24.4	33.4	42.4	51.6	61.0	70.4	79.8	89.2	95.1
92.5°	16.6	23.6	30.6	37.5	44.5	52.4	60.9	69.6	78.1	86.7	92.2
95°	40.8	42.9	45.0	47.1	49.2	54.7	63.4	72.2	80.9	89.7	95.3
97.5°	75.7	69.7	63.8	57.8	51.8	53.6	63.2	72.7	82.3	91.9	97.3
100°	102.3	90.3	78.3	66.2	54.2	52.9	62.4	71.9	81.3	90.8	96.6
102.5°	131.1	132.0	132.8	133.7	134.6	129.8	119.5	109.1	98.7	88.3	94.3
105°	171.6	179.0	186.6	194.1	201.6	191.9	165.2	138.3	111.5	84.7	90.7
107.5°	218.3	224.3	230.4	236.5	242.5	228.6	194.8	161.0	127.2	93.4	96.4
110°	248.0	253.3	258.5	263.7	268.9	256.9	227.8	198.6	169.4	140.2	132.1



TEST NUMBER: P331503-927

CATALOG NUMBER: S122DIW-S485D710U927-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	276.5	280.9	285.4	289.9	294.5	295.3	292.7	290.0	287.3	284.6	243.9
115°	321.2	324.8	328.4	331.8	335.4	341.7	350.7	359.7	368.7	377.6	324.6
117.5°	360.7	364.0	367.3	370.6	373.8	379.3	386.9	394.4	402.0	409.6	399.7
120°	390.0	392.4	394.7	397.1	399.5	404.4	411.9	419.4	426.8	434.3	439.5
122.5°	414.8	417.0	419.1	421.3	423.4	428.2	435.5	442.9	450.3	457.6	462.1
125°	452.0	453.7	455.3	456.9	458.4	462.6	469.1	475.6	482.2	488.7	493.1
127.5°	486.3	488.0	489.6	491.2	492.9	496.3	501.5	506.6	511.7	516.8	521.3
130°	508.0	509.9	511.7	513.6	515.4	518.4	522.5	526.6	530.8	534.9	539.4
132.5°	530.2	531.8	533.3	534.9	536.4	538.9	542.4	545.9	549.4	552.9	557.1
135°	558.5	560.5	562.4	564.4	566.4	568.5	571.0	573.5	575.8	578.3	582.3
137.5°	587.6	589.0	590.3	591.8	593.1	594.7	596.5	598.3	600.2	602.0	605.6
140°	606.7	607.6	608.5	609.3	610.1	611.4	613.0	614.7	616.2	617.9	621.1
142.5°	622.7	623.4	624.2	625.0	625.7	626.9	628.5	630.1	631.8	633.3	636.0
145°	647.2	647.1	647.0	646.8	646.7	647.7	649.7	651.9	653.9	656.1	657.7
147.5°	669.0	668.6	668.1	667.7	667.2	668.0	670.0	672.1	674.1	676.2	677.0
150°	683.3	682.4	681.5	680.6	679.8	680.3	682.3	684.3	686.3	688.2	689.0
152.5°	695.2	694.3	693.3	692.3	691.3	691.8	693.7	695.5	697.4	699.3	700.1
155°	712.6	711.5	710.4	709.3	708.2	708.4	709.9	711.3	712.8	714.3	715.0
157.5°	726.3	725.3	724.4	723.4	722.5	722.5	723.6	724.6	725.6	726.7	727.5
160°	734.3	733.5	732.8	732.1	731.3	731.3	732.1	732.8	733.5	734.3	735.0
162.5°	741.3	740.6	739.9	739.1	738.4	738.3	738.9	739.7	740.3	740.9	741.7
165°	750.9	750.1	749.4	748.7	747.9	747.7	748.1	748.5	748.8	749.2	750.1
167.5°	758.0	757.2	756.5	755.7	755.0	754.9	755.2	755.5	755.9	756.2	757.1
170°	762.0	761.2	760.5	759.8	759.0	758.8	759.0	759.3	759.5	759.8	760.7
172.5°	764.6	763.9	763.2	762.4	761.7	761.4	761.7	761.9	762.2	762.4	763.3
175°	768.1	767.2	766.4	765.5	764.6	764.3	764.5	764.9	765.1	765.3	766.2
177.5°	768.7	767.9	767.2	766.6	765.9	765.6	765.6	765.8	765.9	766.0	766.7
180°	766.4	766.4	766.4	766.4	766.4	766.4	766.4	766.4	766.4	766.4	766.4



TEST NUMBER: P331503-927

CATALOG NUMBER: S122DIW-S485D710U927-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	408.2	408.2	408.2	408.2	408.2	408.2	408.2	408.2
2.5°	406.9	407.4	408.0	408.1	407.9	407.7	407.5	407.3
5°	405.7	406.5	407.3	407.6	407.4	407.3	407.2	407.0
7.5°	403.7	404.6	405.6	406.0	405.9	405.8	405.6	405.5
10°	402.0	403.1	404.2	404.6	404.5	404.3	404.3	404.1
12.5°	399.2	400.3	401.3	401.8	401.6	401.5	401.4	401.2
15°	394.0	395.2	396.4	396.9	396.8	396.6	396.5	396.4
17.5°	387.4	388.6	389.8	390.5	390.5	390.5	390.5	390.5
20°	382.1	383.6	385.0	385.7	385.7	385.7	385.7	385.7
22.5°	376.4	377.9	379.4	380.2	380.4	380.6	380.8	381.0
25°	367.6	369.2	370.7	371.8	372.2	372.6	373.0	373.4
27.5°	357.8	359.8	361.8	362.9	363.2	363.5	363.8	364.1
30°	350.9	353.0	355.1	356.3	356.7	357.1	357.5	357.9
32.5°	343.5	345.9	348.3	349.9	350.6	351.3	352.0	352.8
35°	333.0	335.9	338.7	340.6	341.6	342.5	343.4	344.4
37.5°	322.1	325.3	328.5	330.6	331.6	332.6	333.5	334.5
40°	314.5	317.9	321.3	323.6	324.8	326.0	327.2	328.4
42.5°	307.0	310.8	314.5	317.0	318.1	319.3	320.5	321.7
45°	295.7	299.8	303.8	306.5	307.8	309.2	310.5	311.8
47.5°	283.8	288.1	292.4	295.2	296.7	298.1	299.6	301.0
50°	275.8	280.2	284.7	287.6	289.1	290.6	292.0	293.4
52.5°	267.0	271.6	276.2	279.2	280.7	282.3	283.8	285.4
55°	253.8	258.6	263.2	266.5	268.2	269.9	271.6	273.3
57.5°	239.9	244.9	250.1	253.5	255.2	257.0	258.7	260.5
60°	230.7	235.7	240.7	244.1	245.9	247.8	249.6	251.4
62.5°	220.9	226.2	231.5	235.0	236.8	238.5	240.3	242.0
65°	206.0	211.4	216.8	220.4	222.0	223.8	225.5	227.2
67.5°	191.0	196.4	201.8	205.5	207.2	209.1	210.9	212.6
70°	180.5	186.2	191.8	195.4	197.0	198.6	200.2	201.8
72.5°	170.4	175.9	181.5	185.2	187.0	188.9	190.8	192.7
75°	155.1	160.7	166.4	170.1	171.7	173.5	175.2	176.9
77.5°	140.1	145.8	151.4	155.1	156.9	158.8	160.7	162.5
80°	130.0	135.5	141.0	144.7	146.6	148.4	150.2	152.0
82.5°	120.5	126.0	131.5	135.1	136.9	138.6	140.4	142.1
85°	106.9	112.4	118.0	121.6	123.4	125.3	127.1	129.0
87.5°	97.9	103.4	108.9	112.5	114.2	116.0	117.7	119.5
90°	100.9	106.8	112.6	116.5	118.4	120.2	122.0	123.8
92.5°	97.7	103.1	108.6	112.2	113.9	115.7	117.4	119.1
95°	100.9	106.5	112.1	115.7	117.1	118.6	120.0	121.4
97.5°	102.6	108.0	113.4	116.8	118.6	120.3	121.9	123.7
100°	102.5	108.3	114.2	118.0	119.6	121.4	123.0	124.7
102.5°	100.4	106.5	112.5	116.5	118.2	120.0	121.8	123.6
105°	96.6	102.6	108.5	112.5	114.4	116.4	118.3	120.3
107.5°	99.5	102.5	105.5	108.1	110.0	111.9	113.8	115.8
110°	124.0	115.9	107.7	104.6	106.6	108.5	110.5	112.4



TEST NUMBER: P331503-927

CATALOG NUMBER: S122DIW-S485D710U927-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	203.2	162.4	121.7	102.2	104.0	105.9	107.7	109.6
115°	271.4	218.3	165.2	134.9	127.5	120.1	112.6	105.2
117.5°	389.8	379.9	370.0	351.1	323.3	295.5	267.7	239.9
120°	444.7	449.8	455.0	450.0	434.7	419.5	404.3	389.2
122.5°	466.6	471.0	475.5	476.7	474.8	472.8	470.7	468.7
125°	497.6	501.9	506.4	509.4	510.9	512.5	514.0	515.6
127.5°	525.9	530.4	535.0	537.8	539.0	540.3	541.5	542.7
130°	543.9	548.4	552.9	555.6	556.6	557.5	558.4	559.4
132.5°	561.3	565.5	569.7	572.3	573.2	574.2	575.0	576.0
135°	586.3	590.3	594.2	596.7	597.5	598.3	599.0	599.8
137.5°	609.3	612.9	616.6	618.5	619.0	619.5	620.0	620.4
140°	624.3	627.5	630.7	632.4	632.6	632.7	633.0	633.1
142.5°	638.7	641.4	644.1	645.5	645.5	645.6	645.7	645.8
145°	659.3	661.0	662.7	663.5	663.5	663.6	663.6	663.7
147.5°	677.7	678.5	679.2	679.5	679.3	679.1	678.9	678.7
150°	689.7	690.5	691.2	691.3	690.6	690.0	689.4	688.8
152.5°	700.8	701.6	702.3	702.3	701.4	700.6	699.8	698.9
155°	715.7	716.5	717.2	717.1	716.1	715.2	714.2	713.2
157.5°	728.4	729.2	730.1	730.0	729.0	728.1	727.1	726.1
160°	735.7	736.5	737.2	737.1	736.3	735.4	734.6	733.7
162.5°	742.6	743.4	744.3	744.2	743.1	742.0	740.9	739.9
165°	751.0	751.8	752.7	752.7	751.8	751.0	750.1	749.2
167.5°	758.0	758.8	759.6	759.5	758.4	757.3	756.2	755.1
170°	761.5	762.3	763.2	763.1	762.0	760.9	759.8	758.7
172.5°	764.1	765.0	765.9	765.7	764.6	763.5	762.4	761.3
175°	767.1	767.9	768.7	768.6	767.3	766.1	764.9	763.7
177.5°	767.4	768.0	768.7	768.7	767.8	766.8	766.0	765.1
180°	766.4	766.4	766.4	766.4	766.4	766.4	766.4	766.4

(END OF REPORT)