

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: P332754-930

Luminaire Tested: **S124DIW-S575D770U930-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332754-930
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DIW-S575D770U930-4F0-1E-UDD-D1
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 770 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4104.3 lumens
Efficiency: N/A
Efficacy: 109.2 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')
CIE Type: General Diffuse

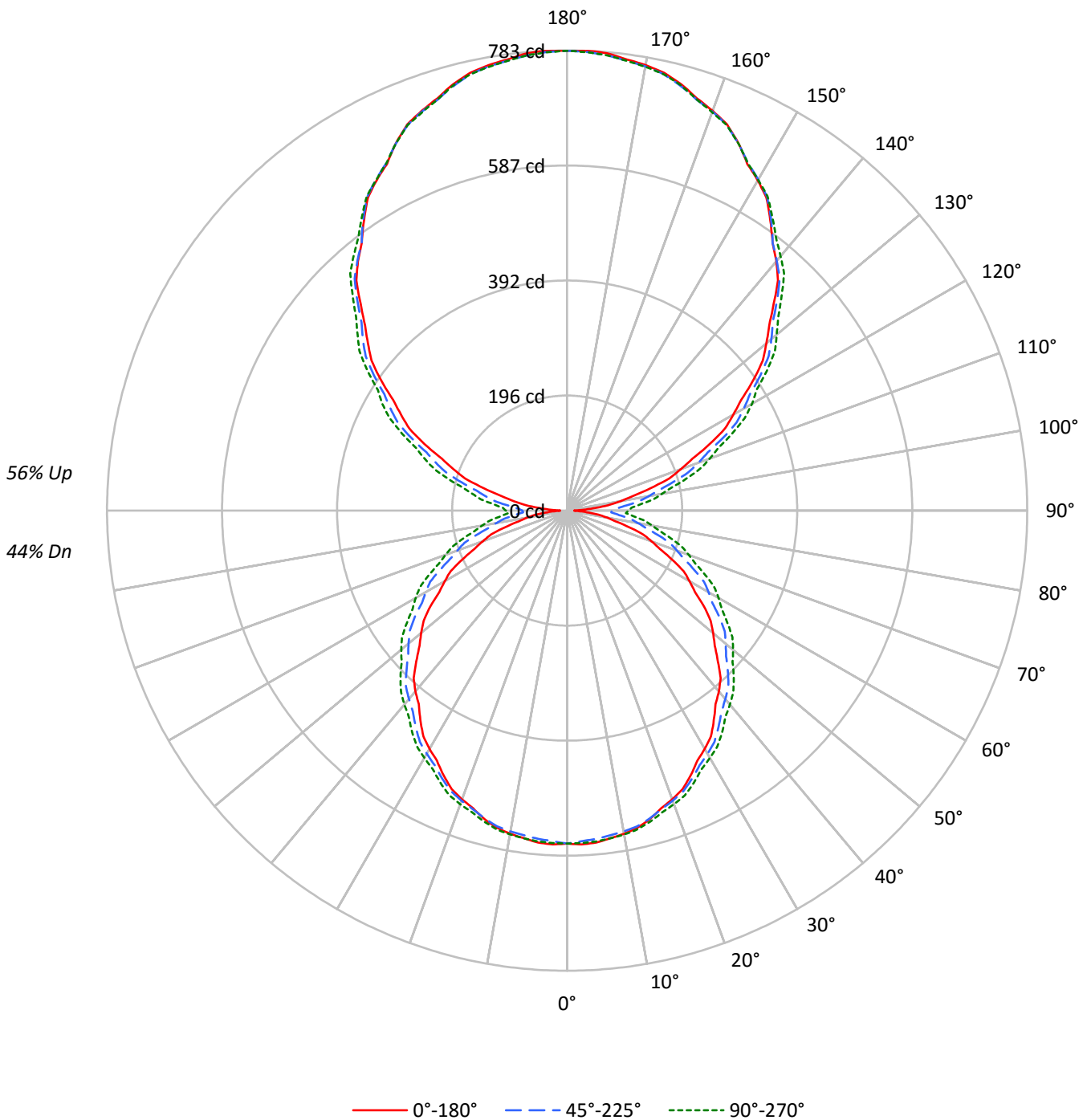
Input Watts (W): 37.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332754-930

CATALOG NUMBER: S124DIW-S575D770U930-4F0-1E-UDD-D1

Luminous Intensity Polar Plot





TEST NUMBER: P332754-930

CATALOG NUMBER: S124DIW-S575D770U930-4F0-1E-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	106	106	106	106	97	97	97	97	80	80	80	64	64	64	50	50	50	44
1	95	91	87	83	87	83	79	76	69	66	64	55	53	52	43	42	41	35
2	87	79	72	67	79	72	66	62	60	55	52	48	45	42	37	35	33	28
3	79	69	61	55	71	63	56	51	52	47	43	42	38	35	33	30	28	24
4	72	61	53	46	65	56	49	43	46	41	36	37	33	30	29	26	24	20
5	66	54	46	39	60	49	42	37	41	36	31	33	29	26	26	23	21	17
6	60	48	40	34	55	44	37	32	37	31	27	30	26	23	24	20	18	15
7	56	43	35	30	51	40	33	28	33	28	24	27	23	20	21	18	16	13
8	52	39	31	26	47	36	29	24	30	25	21	25	21	18	20	17	14	12
9	48	36	28	23	44	33	26	22	28	22	19	23	19	16	18	15	13	11
10	45	33	25	21	41	30	24	19	25	20	17	21	17	14	17	14	12	10

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4574	4574	4574
5°	4588	4470	4482
10°	4560	4397	4393
15°	4519	4312	4289
20°	4458	4219	4187
25°	4388	4114	4074
30°	4313	4011	3959
35°	4227	3903	3858
40°	4160	3802	3753
45°	4059	3708	3663
50°	3973	3600	3567
55°	3884	3499	3454
60°	3746	3369	3353
65°	3597	3231	3227
70°	3414	3072	3080
75°	3157	2896	2948
80°	2873	2730	2819
85°	2514	2579	2742



TEST NUMBER: P332754-930

CATALOG NUMBER: S124DIW-S575D770U930-4F0-1E-UDD-D1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.6	1.3
10°-20°	153.7	3.7
20°-30°	232.4	5.7
30°-40°	281.2	6.9
40°-50°	297.3	7.2
50°-60°	279.8	6.8
60°-70°	232.1	5.7
70°-80°	163.1	4.0
80°-90°	94.5	2.3
90°-100°	106.3	2.6
100°-110°	193.4	4.7
110°-120°	286.7	7.0
120°-130°	357.5	8.7
130°-140°	390.9	9.5
140°-150°	378.9	9.2
150°-160°	317.6	7.7
160°-170°	211.3	5.1
170°-180°	74.0	1.8
0°-30°	439.8	10.7
0°-40°	721.0	17.6
0°-60°	1298.1	31.6
0°-90°	1787.8	43.6
90°-120°	586.4	14.3
90°-150°	1713.6	41.8
90°-180°	2316.0	56.4
0°-180°	4104.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	567	567	567	567	567	
5°	567	565	561	566	565	54
15°	544	544	542	548	548	153
25°	497	501	503	510	511	229
35°	435	443	449	458	460	272
45°	363	375	387	397	401	280
55°	284	298	317	329	333	253
65°	197	217	239	254	260	195
75°	109	133	159	176	183	116
85°	34	60	89	107	114	36
90°	12	44	76	97	104	9
95°	44	71	101	119	126	47
105°	147	161	186	203	210	156
115°	268	274	292	305	310	264
125°	387	387	401	412	415	345
135°	497	501	505	513	516	384
145°	603	604	605	608	609	377
155°	690	690	689	691	689	317
165°	751	749	748	751	749	212
175°	781	778	778	781	778	74
180°	782	782	782	782	782	



TEST NUMBER: P332754-930

CATALOG NUMBER: S124DIW-S575D770U930-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	566.6	566.6	566.6	566.6	566.6	566.6	566.6	566.6	566.6	566.6	566.6
2.5°	568.6	568.3	567.9	567.5	567.2	566.6	565.7	564.8	563.9	563.0	563.8
5°	567.2	566.8	566.3	565.9	565.5	564.8	563.8	562.8	561.8	560.8	562.0
7.5°	562.4	562.1	561.8	561.6	561.3	560.8	560.0	559.2	558.3	557.5	558.8
10°	558.3	558.2	558.0	557.9	557.7	557.3	556.6	555.9	555.2	554.5	555.8
12.5°	552.7	552.7	552.7	552.6	552.6	552.4	551.9	551.4	550.9	550.4	551.5
15°	543.7	543.9	544.0	544.1	544.3	544.1	543.7	543.3	542.8	542.4	543.7
17.5°	531.4	531.8	532.2	532.6	533.1	533.3	533.2	533.1	533.0	533.0	534.2
20°	522.8	523.2	523.6	524.1	524.5	524.7	524.9	525.1	525.1	525.3	526.7
22.5°	513.1	513.6	514.2	514.7	515.3	515.7	515.9	516.2	516.4	516.7	518.1
25°	497.4	498.2	499.1	499.9	500.8	501.4	501.8	502.2	502.7	503.1	504.7
27.5°	479.9	481.1	482.3	483.6	484.9	485.8	486.4	487.1	487.7	488.4	489.8
30°	468.2	469.4	470.4	471.6	472.7	473.8	474.7	475.7	476.7	477.8	479.3
32.5°	455.5	456.9	458.2	459.6	461.0	462.2	463.3	464.4	465.5	466.6	468.3
35°	435.2	436.9	438.6	440.3	442.0	443.5	444.9	446.4	447.8	449.1	451.2
37.5°	414.8	416.7	418.7	420.6	422.6	424.4	426.2	428.0	429.7	431.4	433.4
40°	401.6	403.4	405.3	407.1	409.0	410.8	412.8	414.7	416.8	418.7	420.9
42.5°	386.4	388.4	390.4	392.6	394.6	396.8	399.1	401.4	403.7	406.0	408.4
45°	362.9	365.6	368.3	371.0	373.6	376.3	379.0	381.6	384.3	387.0	389.4
47.5°	340.5	343.2	345.9	348.7	351.5	354.4	357.5	360.6	363.7	366.8	369.3
50°	324.2	327.3	330.4	333.5	336.6	339.7	342.8	345.9	349.0	352.1	354.9
52.5°	307.9	311.0	314.1	317.2	320.3	323.7	327.3	330.8	334.4	337.9	340.7
55°	284.2	287.1	290.2	293.1	296.0	299.6	303.9	308.1	312.3	316.6	319.4
57.5°	257.7	261.4	265.1	268.7	272.4	276.3	280.5	284.7	288.9	293.1	296.4
60°	240.4	244.1	247.8	251.4	255.1	259.3	263.9	268.6	273.2	277.9	281.1
62.5°	223.7	227.7	231.7	235.7	239.7	244.0	248.7	253.3	258.0	262.7	265.9
65°	196.7	201.2	205.7	210.2	214.7	219.4	224.1	228.9	233.7	238.6	242.1
67.5°	170.6	175.5	180.3	185.1	189.8	194.8	199.9	205.0	210.2	215.3	218.9
70°	152.9	157.7	162.5	167.3	172.1	177.2	182.5	187.8	193.2	198.6	202.4
72.5°	135.7	140.6	145.4	150.3	155.2	160.5	166.2	171.9	177.7	183.4	187.0
75°	109.1	114.3	119.5	124.7	130.0	135.6	141.5	147.4	153.4	159.2	163.2
77.5°	84.4	89.9	95.5	100.9	106.5	112.3	118.5	124.7	130.9	137.1	141.1
80°	69.1	74.8	80.5	86.1	91.7	97.6	103.9	110.1	116.3	122.5	126.7
82.5°	53.9	59.8	65.6	71.5	77.4	83.4	89.6	95.8	102.0	108.3	112.6
85°	33.6	39.5	45.5	51.4	57.3	63.4	69.8	76.1	82.5	88.8	93.0
87.5°	19.2	25.2	31.2	37.3	43.4	49.6	55.9	62.4	68.7	75.1	79.3
90°	12.0	19.1	26.2	33.3	40.4	47.5	54.7	61.9	69.0	76.1	81.0
92.5°	22.6	29.4	36.1	42.9	49.7	56.5	63.3	70.1	76.9	83.7	88.2
95°	44.5	50.4	56.3	62.1	68.0	74.3	81.0	87.7	94.5	101.2	105.4
97.5°	70.9	75.9	80.9	85.9	90.8	96.7	103.5	110.3	117.2	124.0	128.2
100°	91.7	95.9	100.1	104.3	108.5	114.0	120.7	127.3	134.1	140.8	144.9
102.5°	114.0	117.4	120.8	124.3	127.7	132.6	139.1	145.6	152.1	158.6	162.7
105°	146.7	149.7	152.6	155.6	158.5	162.9	168.6	174.4	180.1	185.9	189.8
107.5°	182.3	184.7	187.2	189.7	192.2	195.9	200.9	205.9	210.9	216.0	219.8
110°	205.9	208.2	210.4	212.7	214.9	218.5	223.2	228.0	232.8	237.7	240.7



TEST NUMBER: P332754-930

CATALOG NUMBER: S124DIW-S575D770U930-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	230.6	232.4	234.2	236.0	237.8	241.0	245.4	249.9	254.4	258.9	262.0
115°	267.7	268.9	270.2	271.4	272.7	275.5	279.7	284.0	288.2	292.4	295.4
117.5°	303.0	303.9	304.8	305.7	306.6	309.0	313.0	317.0	321.1	325.1	327.5
120°	326.3	327.3	328.2	329.2	330.1	332.5	336.1	339.8	343.5	347.2	349.4
122.5°	351.0	351.3	351.6	351.9	352.2	354.2	357.8	361.5	365.2	368.8	371.2
125°	386.8	386.6	386.5	386.4	386.2	387.8	391.3	394.6	398.0	401.4	403.8
127.5°	419.7	420.0	420.2	420.4	420.8	422.1	424.6	427.1	429.6	432.1	434.4
130°	442.4	442.7	443.0	443.2	443.4	444.7	446.9	449.2	451.5	453.7	456.0
132.5°	466.1	466.3	466.4	466.6	466.8	467.7	469.4	471.1	472.8	474.5	476.6
135°	496.8	497.7	498.5	499.3	500.1	501.0	502.0	503.0	503.9	504.9	506.9
137.5°	531.0	531.2	531.4	531.7	531.9	532.4	533.0	533.8	534.4	535.2	536.9
140°	553.8	553.8	554.0	554.1	554.2	554.4	554.5	554.6	554.8	555.0	556.6
142.5°	574.1	574.3	574.5	574.8	575.0	575.0	574.9	574.6	574.5	574.3	575.8
145°	602.8	603.1	603.5	603.9	604.3	604.5	604.7	604.9	605.0	605.1	605.8
147.5°	631.3	631.8	632.3	632.8	633.3	633.5	633.4	633.2	633.2	633.1	633.1
150°	648.7	649.1	649.5	649.9	650.3	650.5	650.5	650.5	650.5	650.5	650.5
152.5°	664.6	665.0	665.2	665.5	665.9	666.0	666.1	666.3	666.3	666.4	666.8
155°	689.8	689.8	689.8	689.8	689.8	689.7	689.6	689.5	689.3	689.3	689.7
157.5°	711.1	710.9	710.6	710.4	710.1	710.0	710.0	710.0	710.0	709.9	710.3
160°	723.7	723.6	723.4	723.3	723.2	723.0	722.9	722.8	722.6	722.5	722.9
162.5°	735.3	735.0	734.6	734.3	733.9	733.7	733.5	733.4	733.3	733.1	733.9
165°	751.0	750.6	750.2	749.7	749.3	749.0	748.7	748.4	748.2	747.9	748.7
167.5°	762.9	762.4	761.8	761.2	760.7	760.3	760.4	760.4	760.4	760.5	761.3
170°	769.7	769.0	768.3	767.7	767.0	766.7	766.9	767.0	767.1	767.3	768.1
172.5°	774.5	774.0	773.4	772.8	772.3	772.0	772.0	772.1	772.1	772.1	773.1
175°	781.2	780.5	779.8	779.2	778.5	778.1	778.0	777.8	777.7	777.6	778.5
177.5°	783.3	782.9	782.3	781.8	781.2	781.0	781.0	781.0	781.0	781.0	781.7
180°	782.4	782.4	782.4	782.4	782.4	782.4	782.4	782.4	782.4	782.4	782.4



TEST NUMBER: P332754-930

CATALOG NUMBER: S124DIW-S575D770U930-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	566.6	566.6	566.6	566.6	566.6	566.6	566.6	566.6
2.5°	564.6	565.3	566.1	566.5	566.4	566.2	566.1	566.1
5°	563.1	564.2	565.3	565.8	565.7	565.6	565.4	565.2
7.5°	560.1	561.3	562.6	563.2	563.0	562.9	562.7	562.6
10°	557.0	558.3	559.5	560.1	560.0	559.9	559.7	559.5
12.5°	552.8	553.9	555.1	555.6	555.6	555.5	555.5	555.5
15°	544.9	546.3	547.5	548.0	548.0	547.8	547.6	547.5
17.5°	535.5	536.8	538.1	538.7	538.6	538.5	538.3	538.3
20°	528.2	529.5	530.9	531.7	531.7	531.7	531.7	531.7
22.5°	519.5	520.9	522.3	523.2	523.3	523.6	523.8	524.1
25°	506.2	507.8	509.3	510.1	510.3	510.5	510.5	510.7
27.5°	491.3	492.7	494.2	495.0	495.1	495.3	495.5	495.6
30°	480.9	482.4	484.0	484.9	485.1	485.4	485.7	486.0
32.5°	470.1	471.9	473.7	474.7	475.0	475.2	475.6	475.8
35°	453.1	455.1	457.1	458.3	458.7	459.1	459.5	460.0
37.5°	435.5	437.4	439.4	440.7	441.1	441.6	442.0	442.5
40°	423.0	425.1	427.2	428.5	429.1	429.7	430.2	430.8
42.5°	410.7	413.0	415.4	416.8	417.3	417.7	418.2	418.6
45°	391.8	394.2	396.6	398.1	398.8	399.6	400.2	401.0
47.5°	371.8	374.3	376.7	378.4	379.3	380.1	381.0	381.8
50°	357.8	360.6	363.4	365.3	366.1	366.9	367.8	368.6
52.5°	343.6	346.3	349.2	351.0	351.9	352.7	353.5	354.4
55°	322.2	325.1	327.8	329.7	330.5	331.4	332.2	333.0
57.5°	299.8	303.2	306.6	308.6	309.4	310.1	311.0	311.8
60°	284.4	287.6	290.8	293.0	294.2	295.3	296.4	297.6
62.5°	269.1	272.4	275.7	277.8	278.9	280.1	281.2	282.3
65°	245.6	249.2	252.7	254.9	256.1	257.2	258.4	259.5
67.5°	222.5	226.1	229.7	232.0	233.1	234.2	235.3	236.4
70°	206.2	210.0	213.8	216.2	217.2	218.2	219.2	220.1
72.5°	190.7	194.4	198.1	200.5	201.6	202.7	203.8	204.9
75°	167.1	171.0	175.0	177.7	178.9	180.2	181.5	182.7
77.5°	145.2	149.2	153.2	155.9	157.2	158.6	159.9	161.3
80°	130.9	135.1	139.3	142.0	143.2	144.3	145.4	146.6
82.5°	116.9	121.2	125.6	128.4	129.6	130.9	132.1	133.4
85°	97.3	101.5	105.7	108.6	110.0	111.4	112.8	114.2
87.5°	83.6	87.9	92.1	94.9	96.2	97.5	98.7	100.0
90°	85.9	90.8	95.7	98.8	100.3	101.7	103.1	104.4
92.5°	92.6	97.1	101.6	104.4	105.7	107.0	108.3	109.6
95°	109.6	113.8	118.1	120.7	122.1	123.3	124.6	125.8
97.5°	132.3	136.6	140.7	143.4	144.6	145.9	147.1	148.2
100°	149.0	153.0	157.1	159.6	160.6	161.6	162.6	163.5
102.5°	166.7	170.8	174.9	177.5	178.7	179.9	181.2	182.3
105°	193.7	197.7	201.6	204.3	205.9	207.4	209.0	210.4
107.5°	223.6	227.5	231.4	233.7	234.7	235.8	236.8	237.7
110°	243.6	246.5	249.6	251.8	253.3	254.9	256.4	258.0



TEST NUMBER: P332754-930

CATALOG NUMBER: S124DIW-S575D770U930-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	265.0	268.1	271.2	273.3	274.5	275.7	277.0	278.1
115°	298.4	301.3	304.3	306.2	307.0	307.9	308.8	309.7
117.5°	330.0	332.5	334.9	336.6	337.5	338.3	339.2	340.1
120°	351.5	353.7	355.8	357.6	359.0	360.4	361.7	363.1
122.5°	373.6	375.9	378.3	379.8	380.3	380.8	381.4	381.9
125°	406.2	408.6	411.1	412.5	413.1	413.7	414.3	414.8
127.5°	436.6	438.9	441.2	442.6	443.4	444.2	444.9	445.6
130°	458.3	460.6	462.8	464.1	464.4	464.7	465.0	465.4
132.5°	478.8	480.9	483.1	484.5	485.1	485.8	486.4	487.0
135°	508.9	510.9	512.9	514.0	514.5	514.9	515.4	515.8
137.5°	538.6	540.3	542.0	543.2	544.0	544.8	545.6	546.4
140°	558.3	560.0	561.7	562.9	563.5	564.0	564.6	565.2
142.5°	577.4	579.0	580.6	581.6	582.2	582.8	583.3	583.9
145°	606.5	607.2	608.0	608.4	608.5	608.7	608.9	609.0
147.5°	633.1	633.1	633.1	633.2	633.6	633.9	634.2	634.5
150°	650.5	650.5	650.5	650.4	650.3	650.1	650.0	649.9
152.5°	667.1	667.4	667.7	667.7	667.4	667.1	666.7	666.3
155°	690.3	690.8	691.4	691.4	690.8	690.3	689.7	689.3
157.5°	710.7	711.1	711.5	711.5	711.0	710.6	710.1	709.6
160°	723.3	723.7	724.1	724.0	723.3	722.6	721.9	721.3
162.5°	734.6	735.3	736.1	736.1	735.4	734.7	734.1	733.4
165°	749.5	750.3	751.1	751.3	750.7	750.2	749.7	749.1
167.5°	762.1	762.9	763.7	763.7	762.9	762.1	761.2	760.3
170°	768.9	769.7	770.5	770.5	769.5	768.6	767.6	766.7
172.5°	774.0	774.9	775.8	775.8	774.8	773.9	772.9	772.0
175°	779.4	780.4	781.3	781.3	780.4	779.4	778.5	777.6
177.5°	782.4	783.2	784.0	783.9	783.0	782.2	781.3	780.5
180°	782.4	782.4	782.4	782.4	782.4	782.4	782.4	782.4

(END OF REPORT)