

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: P332748

Luminaire Tested: **S124DIW-S575D470U835-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332748
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-S575D470U835-4F0-1E-UDD-D1
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 470 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3996.1 lumens
Efficiency: N/A
Efficacy: 132.3 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

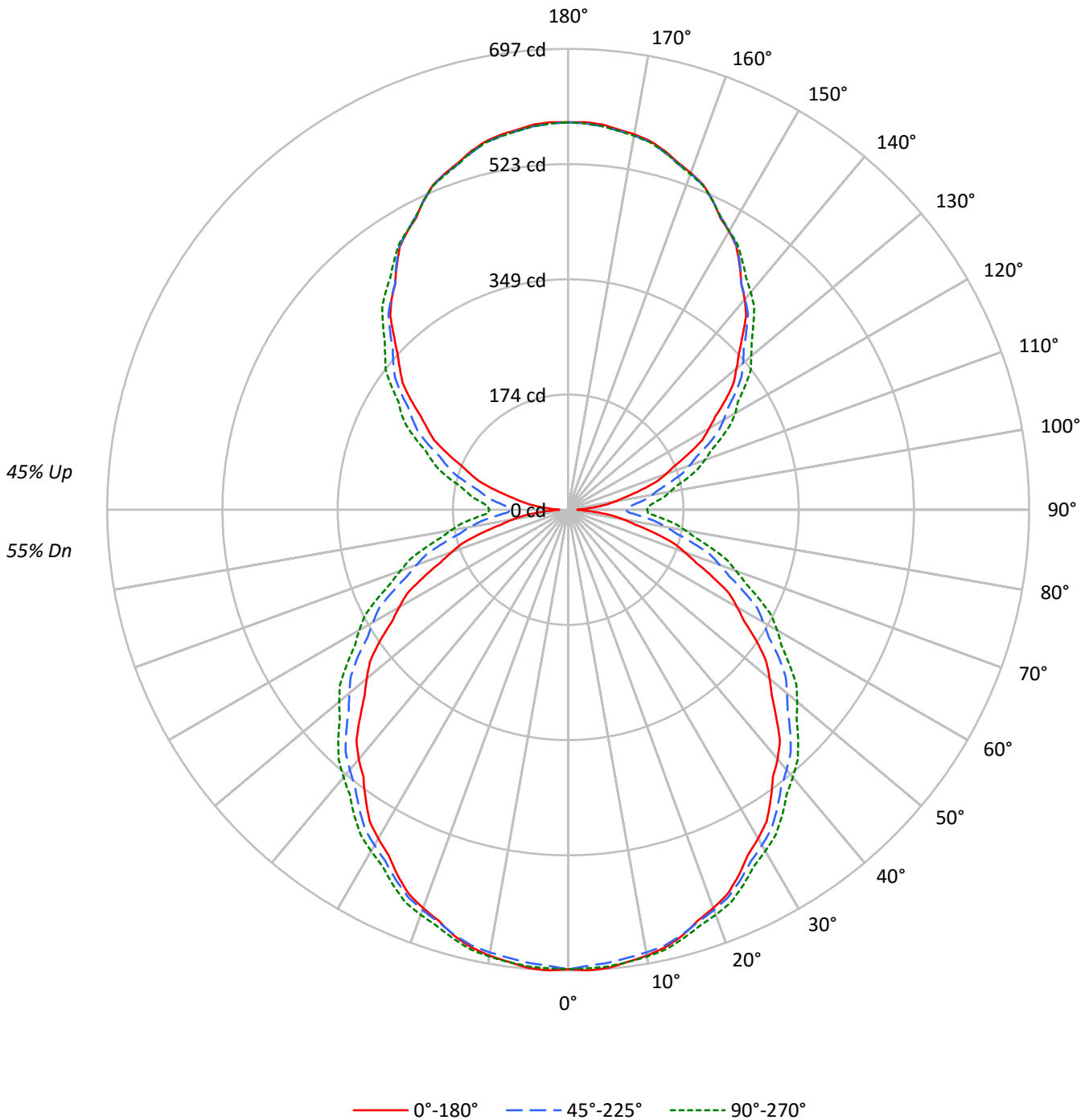
Input Watts (W): 30.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P332748

CATALOG NUMBER: S124DIW-S575D470U835-4F0-1E-UDD-D1

Luminous Intensity Polar Plot





TEST NUMBER: P332748

CATALOG NUMBER: S124DIW-S575D470U835-4F0-1E-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	108	108	108	108	101	101	101	101	86	86	86	73	73	73	61	61	61	55
1	98	93	89	85	90	86	82	79	74	71	68	62	60	58	52	50	49	44
2	89	80	74	68	82	75	69	64	64	60	56	54	51	48	45	42	40	36
3	80	70	63	56	74	65	58	53	56	51	46	47	43	40	39	36	34	30
4	73	62	54	47	68	58	50	45	50	44	39	42	38	34	35	32	29	25
5	67	55	47	40	62	51	44	38	44	38	34	38	33	29	31	28	25	22
6	62	49	41	35	57	46	38	33	40	34	29	34	29	25	28	25	22	19
7	57	44	36	30	53	42	34	29	36	30	26	31	26	22	26	22	19	17
8	53	40	32	27	49	38	30	25	33	27	23	28	23	20	24	20	17	15
9	49	37	29	24	46	34	27	23	30	24	20	26	21	18	22	18	15	13
10	46	34	26	21	43	32	25	20	28	22	18	24	19	16	20	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5610	5610	5610
5°	5628	5483	5498
10°	5593	5393	5388
15°	5543	5289	5260
20°	5467	5175	5135
25°	5382	5046	4997
30°	5290	4919	4856
35°	5185	4787	4732
40°	5102	4663	4603
45°	4978	4549	4492
50°	4873	4416	4375
55°	4765	4291	4237
60°	4596	4132	4112
65°	4410	3962	3958
70°	4186	3768	3778
75°	3872	3553	3616
80°	3526	3347	3457
85°	3082	3163	3364



TEST NUMBER: P332748

CATALOG NUMBER: S124DIW-S575D470U835-4F0-1E-UDD-D1

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.8	1.6
10°-20°	188.5	4.7
20°-30°	285.1	7.1
30°-40°	344.9	8.6
40°-50°	364.7	9.1
50°-60°	343.2	8.6
60°-70°	284.7	7.1
70°-80°	200.0	5.0
80°-90°	114.8	2.9
90°-100°	105.8	2.6
100°-110°	164.2	4.1
110°-120°	227.7	5.7
120°-130°	275.0	6.9
130°-140°	295.9	7.4
140°-150°	284.4	7.1
150°-160°	237.8	6.0
160°-170°	158.2	4.0
170°-180°	55.4	1.4
0°-30°	539.4	13.5
0°-40°	884.4	22.1
0°-60°	1592.2	39.8
0°-90°	2191.7	54.8
90°-120°	497.6	12.5
90°-150°	1352.9	33.9
90°-180°	1804.0	45.1
0°-180°	3996.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	695	695	695	695	695	
5°	696	693	688	694	693	66
15°	667	668	665	672	672	188
25°	610	615	617	625	626	281
35°	534	543	551	561	564	334
45°	445	460	475	487	492	344
55°	349	365	388	403	408	311
65°	241	266	293	311	318	239
75°	134	163	195	216	224	142
85°	41	74	109	131	140	44
90°	14	50	87	111	119	10
95°	37	67	102	124	132	38
105°	113	129	159	179	188	120
115°	202	210	233	249	255	200
125°	291	291	309	322	327	259
135°	373	376	381	392	396	288
145°	452	453	453	457	459	283
155°	517	517	516	518	516	238
165°	562	561	560	563	561	158
175°	585	583	582	585	582	56
180°	586	586	586	586	586	



TEST NUMBER: P332748

CATALOG NUMBER: S124DIW-S575D470U835-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	694.9	694.9	694.9	694.9	694.9	694.9	694.9	694.9	694.9	694.9	694.9
2.5°	697.4	697.0	696.6	696.1	695.7	695.0	693.9	692.8	691.6	690.5	691.5
5°	695.7	695.2	694.6	694.1	693.6	692.7	691.5	690.3	689.1	687.9	689.3
7.5°	689.8	689.4	689.1	688.8	688.5	687.9	686.9	685.9	684.8	683.8	685.4
10°	684.8	684.6	684.4	684.3	684.1	683.6	682.7	681.8	681.0	680.1	681.7
12.5°	677.9	677.9	677.9	677.8	677.8	677.5	676.9	676.3	675.7	675.1	676.5
15°	666.9	667.1	667.2	667.4	667.6	667.4	666.9	666.4	665.8	665.3	666.9
17.5°	651.8	652.3	652.8	653.3	653.9	654.1	654.0	653.9	653.8	653.7	655.2
20°	641.2	641.7	642.2	642.8	643.3	643.6	643.8	644.0	644.1	644.3	646.0
22.5°	629.4	630.0	630.7	631.3	632.0	632.5	632.8	633.1	633.4	633.7	635.5
25°	610.1	611.1	612.2	613.2	614.2	615.0	615.5	616.0	616.6	617.1	619.0
27.5°	588.6	590.1	591.6	593.2	594.7	595.8	596.6	597.4	598.2	599.0	600.8
30°	574.3	575.7	577.0	578.4	579.8	581.1	582.3	583.5	584.7	586.0	587.9
32.5°	558.7	560.4	562.0	563.7	565.4	566.9	568.2	569.6	570.9	572.3	574.4
35°	533.8	535.9	538.0	540.0	542.1	544.0	545.7	547.5	549.2	550.9	553.4
37.5°	508.8	511.1	513.5	515.9	518.3	520.6	522.7	524.9	527.0	529.1	531.6
40°	492.6	494.8	497.1	499.3	501.6	503.9	506.3	508.7	511.2	513.6	516.2
42.5°	473.9	476.4	478.9	481.5	484.0	486.7	489.5	492.3	495.2	498.0	500.9
45°	445.1	448.4	451.7	455.0	458.2	461.5	464.8	468.1	471.4	474.7	477.6
47.5°	417.6	420.9	424.3	427.7	431.1	434.7	438.5	442.3	446.1	449.9	453.0
50°	397.6	401.4	405.2	409.1	412.9	416.7	420.5	424.3	428.1	431.9	435.3
52.5°	377.7	381.5	385.3	389.1	392.9	397.0	401.4	405.7	410.1	414.4	417.9
55°	348.6	352.2	355.9	359.5	363.1	367.5	372.7	377.9	383.1	388.3	391.8
57.5°	316.1	320.6	325.1	329.6	334.1	338.9	344.0	349.2	354.4	359.5	363.6
60°	294.9	299.4	303.9	308.4	312.9	318.0	323.7	329.4	335.1	340.8	344.8
62.5°	274.4	279.3	284.2	289.1	294.0	299.3	305.0	310.7	316.5	322.2	326.1
65°	241.2	246.8	252.3	257.8	263.4	269.1	274.9	280.8	286.7	292.6	296.9
67.5°	209.3	215.2	221.1	227.0	232.8	238.9	245.2	251.5	257.8	264.1	268.5
70°	187.5	193.4	199.3	205.2	211.1	217.3	223.8	230.4	237.0	243.6	248.2
72.5°	166.4	172.4	178.4	184.4	190.4	196.9	203.9	210.9	217.9	224.9	229.4
75°	133.8	140.2	146.6	153.0	159.4	166.3	173.5	180.8	188.1	195.3	200.2
77.5°	103.5	110.3	117.1	123.8	130.6	137.8	145.4	153.0	160.6	168.2	173.1
80°	84.8	91.7	98.7	105.6	112.5	119.7	127.4	135.0	142.6	150.2	155.4
82.5°	66.1	73.3	80.5	87.7	94.9	102.3	109.9	117.5	125.1	132.8	138.1
85°	41.2	48.5	55.8	63.0	70.3	77.8	85.6	93.4	101.2	108.9	114.1
87.5°	23.3	30.6	37.9	45.1	52.4	59.9	67.7	75.4	83.1	90.9	96.0
90°	13.8	21.8	29.9	37.9	45.9	54.0	62.3	70.5	78.8	87.0	92.6
92.5°	21.5	29.0	36.5	44.0	51.5	59.2	67.2	75.2	83.2	91.2	96.5
95°	37.3	43.9	50.5	57.1	63.8	71.0	78.8	86.5	94.3	102.1	107.1
97.5°	56.7	62.3	67.9	73.6	79.2	86.0	93.8	101.6	109.5	117.3	122.2
100°	72.0	76.9	81.8	86.7	91.6	97.9	105.5	113.2	120.8	128.5	133.3
102.5°	88.7	92.8	96.9	101.0	105.1	110.9	118.3	125.7	133.2	140.6	145.4
105°	112.6	116.1	119.7	123.3	126.8	132.0	138.8	145.6	152.4	159.2	163.8
107.5°	139.2	142.1	145.1	148.0	151.0	155.5	161.6	167.8	173.9	180.0	184.5
110°	156.7	159.3	161.9	164.5	167.2	171.4	177.4	183.3	189.3	195.3	199.0



TEST NUMBER: P332748

CATALOG NUMBER: S124DIW-S575D470U835-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	174.9	177.1	179.3	181.4	183.6	187.5	193.1	198.7	204.3	209.9	213.7
115°	202.2	203.8	205.4	206.9	208.5	211.9	217.2	222.6	227.9	233.2	236.9
117.5°	228.7	229.7	230.8	231.8	232.8	235.8	240.8	245.8	250.8	255.8	259.1
120°	245.9	246.8	247.7	248.6	249.6	252.4	257.1	261.8	266.5	271.2	274.2
122.5°	264.4	264.6	264.9	265.2	265.4	267.8	272.4	277.0	281.6	286.2	289.4
125°	290.9	290.7	290.5	290.3	290.2	292.2	296.4	300.6	304.9	309.1	312.2
127.5°	315.4	315.6	315.7	315.8	316.0	317.6	320.8	323.9	327.1	330.2	333.2
130°	332.2	332.4	332.5	332.6	332.7	334.2	337.0	339.7	342.5	345.3	348.2
132.5°	350.0	350.0	350.1	350.1	350.2	351.3	353.4	355.5	357.7	359.8	362.6
135°	372.7	373.3	373.9	374.5	375.1	376.0	377.2	378.4	379.6	380.8	383.4
137.5°	398.2	398.3	398.5	398.6	398.7	399.1	399.9	400.6	401.3	402.1	404.4
140°	415.3	415.3	415.3	415.4	415.4	415.5	415.7	415.8	416.0	416.2	418.3
142.5°	430.2	430.4	430.6	430.7	430.9	430.9	430.7	430.5	430.3	430.2	432.1
145°	451.7	451.9	452.1	452.3	452.6	452.7	452.8	452.9	453.0	453.1	454.1
147.5°	473.0	473.4	473.7	474.0	474.3	474.4	474.3	474.2	474.2	474.1	474.1
150°	486.1	486.3	486.6	486.8	487.0	487.1	487.1	487.1	487.1	487.1	487.1
152.5°	497.8	498.0	498.2	498.4	498.6	498.8	498.8	498.9	499.0	499.1	499.3
155°	516.6	516.6	516.6	516.6	516.6	516.5	516.4	516.3	516.2	516.1	516.5
157.5°	532.5	532.3	532.2	532.0	531.8	531.7	531.7	531.7	531.6	531.6	531.9
160°	542.0	541.9	541.8	541.7	541.6	541.5	541.4	541.3	541.2	541.1	541.4
162.5°	550.7	550.4	550.1	549.9	549.6	549.4	549.3	549.2	549.1	549.0	549.6
165°	562.3	562.0	561.7	561.4	561.1	560.9	560.7	560.5	560.3	560.1	560.7
167.5°	571.3	570.9	570.5	570.1	569.6	569.4	569.4	569.5	569.5	569.5	570.1
170°	576.4	575.9	575.4	574.9	574.4	574.2	574.3	574.4	574.5	574.6	575.2
172.5°	580.0	579.6	579.2	578.8	578.3	578.1	578.1	578.2	578.2	578.2	578.9
175°	585.0	584.5	584.0	583.5	583.0	582.7	582.6	582.5	582.4	582.3	583.0
177.5°	586.6	586.2	585.8	585.4	585.0	584.8	584.8	584.8	584.8	584.8	585.4
180°	585.9	585.9	585.9	585.9	585.9	585.9	585.9	585.9	585.9	585.9	585.9



TEST NUMBER: P332748

CATALOG NUMBER: S124DIW-S575D470U835-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	694.9	694.9	694.9	694.9	694.9	694.9	694.9	694.9
2.5°	692.5	693.4	694.4	694.8	694.7	694.5	694.4	694.3
5°	690.7	692.0	693.4	694.0	693.9	693.7	693.5	693.3
7.5°	687.0	688.5	690.1	690.8	690.6	690.4	690.2	690.1
10°	683.2	684.8	686.3	687.0	686.9	686.7	686.5	686.3
12.5°	678.0	679.4	680.8	681.5	681.5	681.4	681.4	681.4
15°	668.4	670.0	671.5	672.2	672.1	671.9	671.7	671.5
17.5°	656.8	658.4	660.0	660.7	660.6	660.5	660.3	660.2
20°	647.8	649.5	651.2	652.1	652.1	652.1	652.1	652.1
22.5°	637.2	638.9	640.6	641.7	641.9	642.2	642.5	642.8
25°	620.9	622.8	624.7	625.7	625.9	626.1	626.2	626.4
27.5°	602.6	604.3	606.1	607.1	607.3	607.5	607.7	607.9
30°	589.8	591.7	593.6	594.7	595.0	595.4	595.7	596.1
32.5°	576.6	578.8	581.0	582.2	582.6	582.9	583.3	583.6
35°	555.8	558.2	560.6	562.1	562.6	563.1	563.6	564.2
37.5°	534.1	536.5	539.0	540.5	541.0	541.6	542.1	542.7
40°	518.8	521.4	524.0	525.6	526.3	527.0	527.7	528.4
42.5°	503.8	506.6	509.5	511.2	511.8	512.3	512.9	513.4
45°	480.6	483.5	486.4	488.3	489.2	490.1	490.9	491.8
47.5°	456.0	459.1	462.1	464.1	465.2	466.2	467.3	468.3
50°	438.8	442.3	445.7	448.0	449.0	450.0	451.1	452.1
52.5°	421.4	424.8	428.3	430.5	431.6	432.6	433.6	434.7
55°	395.2	398.7	402.1	404.4	405.4	406.5	407.5	408.5
57.5°	367.7	371.9	376.0	378.5	379.5	380.4	381.4	382.4
60°	348.8	352.8	356.7	359.4	360.8	362.2	363.6	365.0
62.5°	330.1	334.1	338.1	340.7	342.1	343.5	344.9	346.3
65°	301.2	305.6	309.9	312.7	314.1	315.5	316.9	318.3
67.5°	272.9	277.3	281.7	284.5	285.9	287.2	288.6	289.9
70°	252.9	257.6	262.2	265.2	266.4	267.6	268.8	270.0
72.5°	233.9	238.5	243.0	245.9	247.3	248.6	250.0	251.3
75°	205.0	209.8	214.7	217.9	219.4	221.0	222.6	224.1
77.5°	178.1	183.0	187.9	191.2	192.8	194.5	196.1	197.8
80°	160.6	165.7	170.9	174.2	175.6	177.0	178.4	179.8
82.5°	143.4	148.7	154.1	157.5	159.0	160.5	162.0	163.6
85°	119.3	124.5	129.7	133.2	134.9	136.6	138.3	140.1
87.5°	101.1	106.3	111.4	114.8	116.3	117.9	119.4	121.0
90°	98.2	103.9	109.5	113.1	114.7	116.3	117.8	119.4
92.5°	101.7	107.0	112.2	115.6	117.1	118.6	120.1	121.6
95°	112.1	117.1	122.0	125.3	126.8	128.4	130.0	131.5
97.5°	127.1	132.0	136.9	140.1	141.6	143.1	144.6	146.1
100°	138.2	143.1	148.0	151.0	152.2	153.4	154.6	155.8
102.5°	150.2	155.0	159.8	163.0	164.4	165.8	167.2	168.7
105°	168.5	173.1	177.7	180.9	182.5	184.2	185.9	187.6
107.5°	189.0	193.6	198.1	201.0	202.2	203.5	204.7	205.9
110°	202.8	206.6	210.4	213.1	214.8	216.5	218.1	219.8



TEST NUMBER: P332748

CATALOG NUMBER: S124DIW-S575D470U835-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	217.5	221.3	225.1	227.7	229.2	230.6	232.0	233.5
115°	240.6	244.3	248.1	250.5	251.6	252.7	253.8	254.9
117.5°	262.4	265.6	268.9	271.1	272.3	273.4	274.6	275.8
120°	277.1	280.1	283.0	285.3	286.9	288.5	290.1	291.7
122.5°	292.5	295.6	298.7	300.7	301.6	302.5	303.3	304.2
125°	315.2	318.3	321.4	323.4	324.2	325.0	325.9	326.7
127.5°	336.1	339.0	341.9	343.8	344.9	345.9	346.9	347.9
130°	351.1	354.0	356.9	358.7	359.3	359.9	360.6	361.2
132.5°	365.3	368.1	370.9	372.7	373.6	374.5	375.3	376.2
135°	386.0	388.5	391.1	392.8	393.5	394.2	395.0	395.7
137.5°	406.6	408.9	411.1	412.7	413.7	414.6	415.5	416.4
140°	420.5	422.6	424.8	426.2	427.0	427.8	428.5	429.3
142.5°	434.1	436.0	438.0	439.3	440.0	440.7	441.4	442.1
145°	455.0	456.0	456.9	457.6	457.9	458.3	458.7	459.1
147.5°	474.2	474.2	474.3	474.6	475.0	475.5	475.9	476.4
150°	487.1	487.1	487.1	487.1	487.0	486.9	486.8	486.7
152.5°	499.6	499.8	500.1	500.0	499.8	499.5	499.3	499.0
155°	516.9	517.3	517.7	517.7	517.3	516.9	516.5	516.1
157.5°	532.2	532.5	532.8	532.8	532.5	532.1	531.8	531.4
160°	541.7	542.0	542.3	542.2	541.7	541.2	540.6	540.1
162.5°	550.1	550.7	551.2	551.2	550.7	550.2	549.7	549.2
165°	561.3	561.9	562.5	562.6	562.2	561.8	561.4	561.0
167.5°	570.7	571.3	571.9	571.9	571.3	570.7	570.0	569.4
170°	575.8	576.4	577.0	576.9	576.2	575.5	574.8	574.1
172.5°	579.6	580.3	580.9	580.9	580.2	579.5	578.8	578.1
175°	583.7	584.4	585.1	585.1	584.4	583.7	583.0	582.3
177.5°	586.0	586.5	587.1	587.0	586.4	585.8	585.1	584.5
180°	585.9	585.9	585.9	585.9	585.9	585.9	585.9	585.9

(END OF REPORT)