

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: P332547-930

Luminaire Tested: **S124DIP-S575D590U930-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332547-930
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-6,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DIP-S575D590U930-4F0-1E-UDD-D
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 590 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3856.5 lumens
Efficiency: N/A
Efficacy: 117.6 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

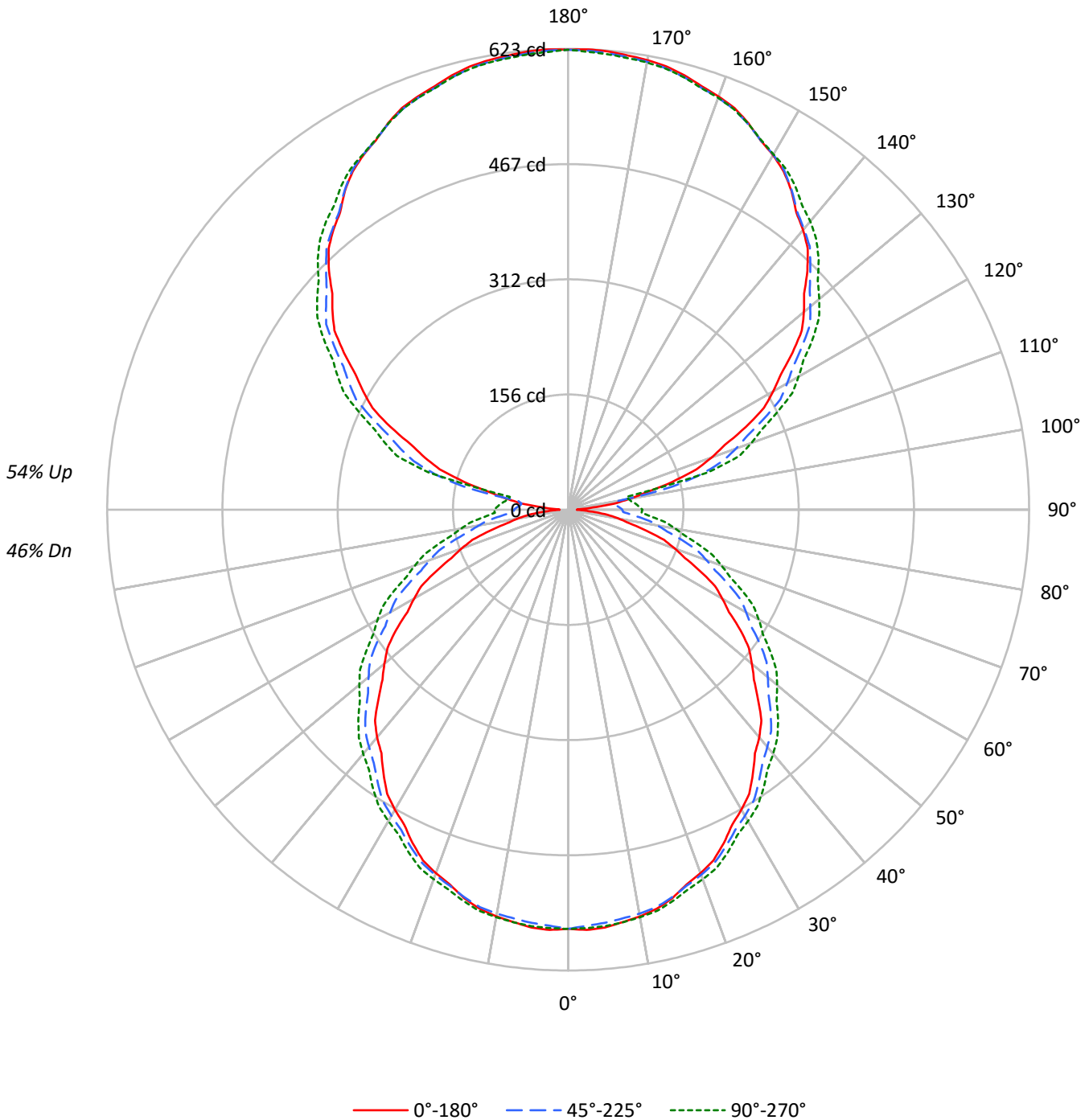
Input Watts (W): 32.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P332547-930

CATALOG NUMBER: S124DIP-S575D590U930-4F0-1E-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	106	106	106	106	98	98	98	98	81	81	81	66	66	66	53	53	53	46
1	96	91	87	83	88	84	80	77	70	67	65	57	55	53	45	44	43	37
2	87	79	73	67	79	73	67	62	61	56	53	49	46	44	39	37	35	30
3	79	69	62	55	72	64	57	52	53	48	44	43	40	37	34	32	29	25
4	72	61	53	47	66	56	49	43	47	41	37	38	34	31	30	28	25	21
5	66	54	46	40	60	50	43	37	42	36	32	34	30	27	27	24	22	18
6	61	48	40	34	56	45	37	32	38	32	28	31	27	23	25	21	19	16
7	56	44	36	30	51	40	33	28	34	28	24	28	24	20	23	19	17	14
8	52	40	32	26	48	37	30	25	31	25	21	26	21	18	21	17	15	12
9	48	36	28	23	44	33	27	22	28	23	19	24	19	16	19	16	13	11
10	45	33	26	21	41	31	24	20	26	21	17	22	18	15	18	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



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.6	1.4
10°-20°	153.7	4.0
20°-30°	232.4	6.0
30°-40°	281.2	7.3
40°-50°	297.3	7.7
50°-60°	279.8	7.3
60°-70°	232.1	6.0
70°-80°	163.1	4.2
80°-90°	94.0	2.4
90°-100°	76.0	2.0
100°-110°	176.1	4.6
110°-120°	286.6	7.4
120°-130°	344.6	8.9
130°-140°	358.9	9.3
140°-150°	330.8	8.6
150°-160°	265.7	6.9
160°-170°	171.4	4.4
170°-180°	59.1	1.5
0°-30°	439.8	11.4
0°-40°	721.0	18.7
0°-60°	1298.1	33.7
0°-90°	1787.3	46.3
90°-120°	538.7	14.0
90°-150°	1573.1	40.8
90°-180°	2069.0	53.7
0°-180°	3856.5	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	42	73	93	100	8
95°	34	40	65	85	92	39
105°	146	162	187	205	195	153
115°	265	273	292	306	311	261
125°	370	372	386	399	404	330
135°	457	457	463	474	479	352
145°	526	527	527	531	535	329
155°	576	577	575	577	576	266
165°	608	606	606	609	605	172
175°	622	619	620	623	618	59
180°	622	622	622	622	622	



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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°	19.1	25.0	31.0	37.0	43.0	49.2	55.4	61.8	68.2	74.5	78.7
90°	11.6	18.3	25.1	31.9	38.6	45.5	52.3	59.3	66.1	73.1	77.8
92.5°	15.5	20.6	25.8	30.9	36.0	42.1	48.9	55.8	62.7	69.6	74.2
95°	33.8	35.0	36.1	37.3	38.4	41.9	47.8	53.6	59.5	65.4	69.9
97.5°	61.8	68.0	74.2	80.4	86.6	86.7	81.0	75.2	69.4	63.5	67.3
100°	83.2	88.8	94.3	99.8	105.3	103.7	95.0	86.2	77.5	68.6	70.8
102.5°	107.8	112.3	117.0	121.6	126.1	130.2	133.7	137.2	140.7	144.3	129.0
105°	145.7	149.1	152.5	156.0	159.5	164.0	169.7	175.5	181.2	186.9	191.4
107.5°	182.0	184.6	187.2	189.8	192.4	196.6	202.2	207.8	213.4	219.1	223.1
110°	205.9	208.3	210.6	212.9	215.2	219.1	224.6	230.2	235.7	241.2	244.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	229.3	231.6	233.9	236.2	238.5	242.1	247.2	252.2	257.1	262.1	265.2
115°	265.1	266.8	268.3	269.9	271.5	274.5	278.9	283.3	287.7	292.1	295.5
117.5°	298.1	299.2	300.4	301.6	302.8	305.6	310.0	314.5	318.9	323.3	326.2
120°	319.9	320.7	321.6	322.4	323.3	325.6	329.6	333.6	337.6	341.6	344.6
122.5°	340.7	341.0	341.4	341.7	342.0	344.2	348.2	352.2	356.2	360.3	363.2
125°	369.9	370.2	370.5	370.8	371.0	372.8	376.2	379.4	382.8	386.1	389.1
127.5°	398.1	398.0	398.0	397.9	397.9	399.5	402.7	405.9	409.0	412.2	414.7
130°	415.8	415.8	415.7	415.7	415.6	416.9	419.5	422.1	424.6	427.2	429.8
132.5°	432.5	432.6	432.7	432.7	432.8	433.8	436.0	438.2	440.4	442.6	445.2
135°	457.1	456.9	456.8	456.7	456.6	457.3	458.7	460.1	461.5	462.8	465.4
137.5°	479.2	479.2	479.1	479.0	478.9	479.3	480.2	481.2	482.1	483.0	485.3
140°	493.7	493.8	493.9	494.0	494.1	494.2	494.6	495.0	495.3	495.6	497.7
142.5°	506.3	506.6	507.0	507.4	507.7	507.8	507.9	507.9	508.0	508.0	509.9
145°	526.2	526.4	526.5	526.7	526.8	526.9	526.9	526.9	526.9	526.9	527.9
147.5°	542.1	542.5	542.9	543.4	543.8	544.0	543.9	543.8	543.6	543.6	543.8
150°	553.6	553.8	554.2	554.4	554.7	554.8	554.6	554.6	554.5	554.3	554.3
152.5°	562.8	563.0	563.4	563.7	563.9	564.0	563.9	563.7	563.5	563.3	563.5
155°	576.3	576.3	576.4	576.5	576.7	576.5	576.3	575.9	575.6	575.3	575.7
157.5°	587.7	587.6	587.5	587.5	587.4	587.2	586.9	586.5	586.1	585.8	586.4
160°	594.4	594.0	593.7	593.5	593.1	592.9	592.8	592.7	592.6	592.5	593.1
162.5°	600.3	599.9	599.5	599.2	598.8	598.5	598.3	598.3	598.2	598.1	598.7
165°	607.8	607.3	606.8	606.3	605.8	605.5	605.5	605.5	605.5	605.5	606.3
167.5°	613.8	613.3	612.7	612.2	611.6	611.3	611.3	611.2	611.1	611.1	612.0
170°	617.2	616.5	615.9	615.3	614.7	614.4	614.5	614.6	614.7	614.8	615.6
172.5°	619.4	618.7	618.2	617.5	616.9	616.6	616.8	616.9	616.9	617.0	617.9
175°	621.8	621.2	620.5	620.0	619.3	619.1	619.1	619.3	619.4	619.5	620.4
177.5°	622.9	622.3	621.7	621.2	620.6	620.4	620.5	620.7	620.9	621.0	621.7
180°	621.8	621.8	621.8	621.8	621.8	621.8	621.8	621.8	621.8	621.8	621.8



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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°	82.9	87.2	91.3	94.1	95.4	96.7	97.9	99.2
90°	82.4	87.2	91.9	94.9	96.2	97.6	98.9	100.2
92.5°	78.8	83.4	88.0	90.9	92.0	93.2	94.4	95.6
95°	74.3	78.7	83.2	86.0	87.4	88.8	90.2	91.6
97.5°	71.0	74.8	78.6	81.1	82.4	83.7	85.0	86.3
100°	72.8	74.8	76.9	78.4	79.6	80.6	81.7	82.8
102.5°	113.7	98.5	83.2	76.1	77.3	78.4	79.5	80.6
105°	195.9	200.3	204.8	205.7	203.1	200.6	198.0	195.3
107.5°	227.0	230.9	234.8	237.5	238.9	240.3	241.7	243.1
110°	248.2	251.6	255.0	257.5	258.9	260.4	261.8	263.3



TEST NUMBER: P332547-930

CATALOG NUMBER: S124DIP-S575D590U930-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	268.3	271.4	274.5	276.8	278.3	279.9	281.4	282.9
115°	298.7	302.1	305.3	307.5	308.5	309.5	310.5	311.4
117.5°	329.1	332.0	334.8	336.8	337.9	339.0	340.1	341.2
120°	347.6	350.7	353.7	355.6	356.6	357.5	358.4	359.4
122.5°	366.2	369.1	372.0	373.9	374.7	375.5	376.3	377.2
125°	392.1	395.1	398.0	400.0	401.0	401.9	402.8	403.8
127.5°	417.2	419.6	422.2	423.8	424.7	425.6	426.5	427.3
130°	432.4	435.1	437.7	439.5	440.3	441.2	442.1	442.9
132.5°	447.7	450.2	452.7	454.4	455.2	455.9	456.7	457.5
135°	467.8	470.3	472.7	474.5	475.6	476.6	477.6	478.7
137.5°	487.6	489.9	492.2	493.7	494.2	494.9	495.5	496.2
140°	499.9	502.1	504.2	505.6	506.5	507.3	508.1	508.9
142.5°	511.7	513.6	515.4	516.6	517.2	517.8	518.4	519.0
145°	528.8	529.8	530.7	531.6	532.3	533.1	533.9	534.7
147.5°	544.0	544.1	544.4	544.7	545.3	545.8	546.4	547.0
150°	554.3	554.3	554.3	554.4	554.5	554.6	554.7	554.8
152.5°	563.6	563.8	563.9	564.0	563.9	563.9	563.8	563.8
155°	576.1	576.5	576.9	577.0	576.7	576.3	576.1	575.8
157.5°	586.9	587.4	587.9	587.9	587.4	586.9	586.4	585.8
160°	593.7	594.4	595.0	595.0	594.4	593.7	593.1	592.5
162.5°	599.3	599.9	600.5	600.5	599.8	599.1	598.4	597.7
165°	607.2	608.0	608.9	608.8	607.8	606.9	606.0	605.0
167.5°	612.9	613.8	614.7	614.7	613.7	612.6	611.6	610.6
170°	616.4	617.3	618.2	618.0	617.0	616.0	614.9	613.9
172.5°	618.7	619.5	620.4	620.2	619.1	618.0	616.9	615.7
175°	621.3	622.2	623.2	623.1	621.8	620.5	619.3	618.1
177.5°	622.4	623.1	623.7	623.5	622.6	621.6	620.5	619.5
180°	621.8	621.8	621.8	621.8	621.8	621.8	621.8	621.8

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