

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: P332538-830

Luminaire Tested: **S124DIP-S575D365U830-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P332538-830  
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-S575D365U830-4F0-1E-UDD-D  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 575 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 365 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3611.6 lumens  
Efficiency: N/A  
Efficacy: 131.3 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

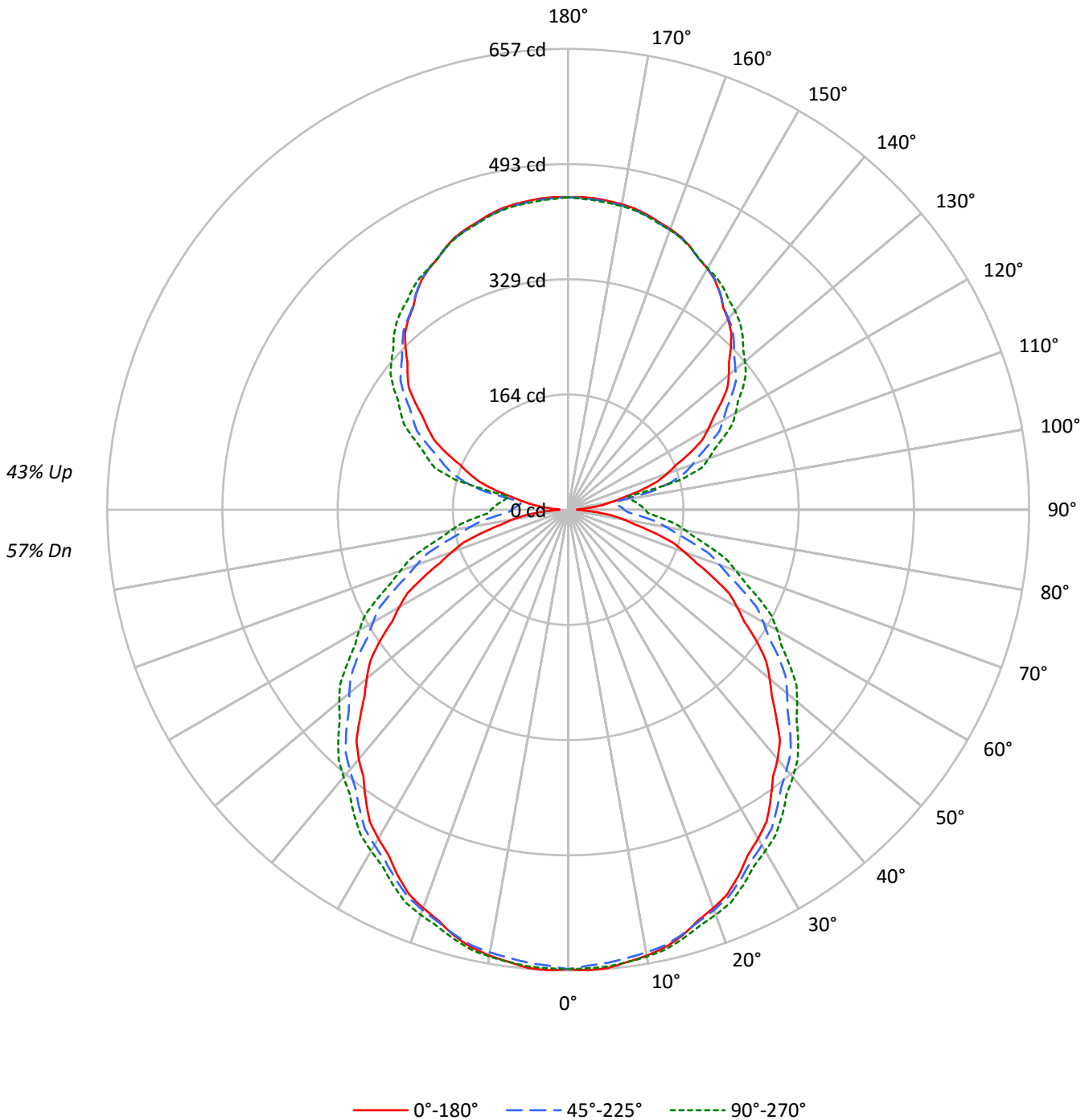
Input Watts (W): 27.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





TEST NUMBER: P332538-830

CATALOG NUMBER: S124DIP-S575D365U830-4F0-1E-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	109	109	109	109	101	101	101	101	87	87	87	75	75	75	63	63	63	57
1	98	93	89	85	91	87	83	80	75	72	69	64	62	60	54	52	51	46
2	89	81	74	68	82	75	69	64	65	60	56	55	52	49	46	44	42	37
3	81	71	63	56	75	66	59	53	57	51	47	49	44	41	41	38	35	31
4	74	62	54	47	68	58	51	45	50	44	40	43	38	35	36	33	30	26
5	68	55	47	40	63	52	44	38	45	39	34	38	34	30	32	29	26	23
6	62	50	41	35	58	46	39	33	40	34	30	35	30	26	29	26	23	20
7	58	45	36	31	53	42	34	29	37	30	26	31	27	23	27	23	20	17
8	53	41	32	27	49	38	31	26	33	27	23	29	24	20	25	21	18	15
9	50	37	29	24	46	35	28	23	30	25	21	26	22	18	23	19	16	14
10	46	34	26	21	43	32	25	20	28	22	18	24	20	16	21	17	14	13

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	5288	5288	5288
5°	5304	5168	5182
10°	5272	5083	5079
15°	5225	4985	4958
20°	5153	4877	4840
25°	5073	4756	4710
30°	4986	4636	4576
35°	4887	4512	4460
40°	4809	4395	4338
45°	4692	4287	4233
50°	4593	4163	4123
55°	4491	4045	3993
60°	4332	3894	3876
65°	4156	3735	3731
70°	3945	3551	3561
75°	3649	3349	3408
80°	3322	3156	3259
85°	2903	2980	3172



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	62.0	1.7
10°-20°	177.7	4.9
20°-30°	268.7	7.4
30°-40°	325.1	9.0
40°-50°	343.7	9.5
50°-60°	323.5	9.0
60°-70°	268.4	7.4
70°-80°	188.5	5.2
80°-90°	107.9	3.0
90°-100°	78.5	2.2
100°-110°	144.0	4.0
110°-120°	217.2	6.0
120°-130°	253.6	7.0
130°-140°	260.0	7.2
140°-150°	237.5	6.6
150°-160°	190.3	5.3
160°-170°	122.7	3.4
170°-180°	42.3	1.2
0°-30°	508.4	14.1
0°-40°	833.5	23.1
0°-60°	1500.7	41.6
0°-90°	2065.4	57.2
90°-120°	439.7	12.2
90°-150°	1190.8	33.0
90°-180°	1546.0	42.8
0°-180°	3611.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	655	655	655	655	655	
5°	656	653	648	654	654	62
15°	629	629	627	633	633	177
25°	575	579	582	589	590	265
35°	503	512	519	529	532	315
45°	420	433	447	459	464	324
55°	329	344	366	380	385	293
65°	227	251	276	293	300	225
75°	126	153	184	204	211	134
85°	39	70	103	124	132	41
90°	13	46	80	102	110	9
95°	28	42	71	92	100	31
105°	107	124	152	172	168	112
115°	192	200	222	238	244	189
125°	266	268	284	299	304	238
135°	328	328	334	346	352	253
145°	377	377	377	382	386	236
155°	413	413	412	413	412	190
165°	435	434	434	436	433	123
175°	445	444	444	446	443	42
180°	445	445	445	445	445	



TEST NUMBER: P332538-830

CATALOG NUMBER: S124DIP-S575D365U830-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
2.5°	657.3	657.0	656.6	656.1	655.7	655.1	654.0	653.0	651.9	650.8	651.8
5°	655.7	655.3	654.7	654.2	653.7	652.9	651.8	650.6	649.5	648.4	649.7
7.5°	650.2	649.8	649.5	649.2	648.9	648.4	647.4	646.5	645.5	644.5	646.0
10°	645.5	645.3	645.1	645.0	644.8	644.3	643.5	642.6	641.9	641.0	642.5
12.5°	638.9	638.9	638.9	638.9	638.9	638.6	638.0	637.4	636.9	636.3	637.6
15°	628.6	628.8	628.9	629.1	629.2	629.1	628.6	628.1	627.5	627.1	628.6
17.5°	614.3	614.8	615.3	615.8	616.3	616.5	616.4	616.3	616.2	616.1	617.6
20°	604.4	604.8	605.3	605.9	606.3	606.6	606.8	607.0	607.1	607.3	608.9
22.5°	593.2	593.8	594.5	595.0	595.7	596.2	596.4	596.7	597.0	597.3	599.0
25°	575.0	576.0	577.0	578.0	578.9	579.7	580.1	580.6	581.2	581.6	583.4
27.5°	554.8	556.2	557.6	559.1	560.5	561.6	562.3	563.1	563.8	564.6	566.3
30°	541.3	542.6	543.8	545.2	546.5	547.7	548.8	550.0	551.1	552.3	554.1
32.5°	526.6	528.2	529.7	531.3	532.9	534.3	535.6	536.9	538.1	539.4	541.4
35°	503.1	505.1	507.1	509.0	511.0	512.7	514.3	516.0	517.6	519.2	521.6
37.5°	479.6	481.7	484.0	486.3	488.5	490.7	492.7	494.7	496.7	498.7	501.1
40°	464.3	466.4	468.5	470.6	472.8	474.9	477.2	479.5	481.8	484.1	486.5
42.5°	446.7	449.0	451.4	453.8	456.2	458.7	461.4	464.0	466.7	469.4	472.1
45°	419.5	422.6	425.7	428.9	431.9	435.0	438.1	441.2	444.3	447.4	450.2
47.5°	393.6	396.7	399.9	403.1	406.3	409.7	413.3	416.9	420.5	424.0	427.0
50°	374.8	378.3	381.9	385.6	389.2	392.8	396.3	399.9	403.5	407.1	410.3
52.5°	356.0	359.6	363.2	366.7	370.3	374.2	378.3	382.4	386.5	390.6	393.9
55°	328.6	332.0	335.5	338.8	342.2	346.4	351.3	356.2	361.1	366.0	369.3
57.5°	297.9	302.2	306.4	310.7	314.9	319.4	324.2	329.1	334.0	338.8	342.7
60°	278.0	282.2	286.4	290.7	294.9	299.7	305.1	310.5	315.8	321.2	325.0
62.5°	258.6	263.3	267.9	272.5	277.1	282.1	287.5	292.8	298.3	303.7	307.4
65°	227.3	232.6	237.8	243.0	248.3	253.6	259.1	264.7	270.2	275.8	279.8
67.5°	197.3	202.8	208.4	214.0	219.4	225.2	231.1	237.0	243.0	248.9	253.1
70°	176.7	182.3	187.8	193.4	199.0	204.8	210.9	217.2	223.4	229.6	233.9
72.5°	156.8	162.5	168.1	173.8	179.5	185.6	192.2	198.8	205.4	212.0	216.2
75°	126.1	132.1	138.2	144.2	150.2	156.7	163.5	170.4	177.3	184.1	188.7
77.5°	97.6	104.0	110.4	116.7	123.1	129.9	137.0	144.2	151.4	158.5	163.2
80°	79.9	86.4	93.0	99.5	106.0	112.8	120.1	127.2	134.4	141.6	146.5
82.5°	62.3	69.1	75.9	82.7	89.4	96.4	103.6	110.7	117.9	125.2	130.2
85°	38.8	45.7	52.6	59.4	66.3	73.3	80.7	88.0	95.4	102.6	107.5
87.5°	21.9	28.7	35.5	42.3	49.2	56.2	63.4	70.7	77.9	85.2	90.0
90°	12.7	20.1	27.4	34.8	42.0	49.6	57.1	64.8	72.3	79.9	85.1
92.5°	15.4	21.3	27.1	33.1	39.0	45.7	53.3	61.0	68.5	76.2	81.2
95°	27.9	30.7	33.6	36.5	39.3	44.1	50.9	57.6	64.4	71.2	76.0
97.5°	47.6	53.7	59.9	66.2	72.4	74.6	73.0	71.4	69.7	68.1	72.4
100°	62.7	68.2	73.8	79.4	85.0	85.9	82.0	78.1	74.3	70.4	73.5
102.5°	80.3	85.0	89.6	94.3	99.1	103.9	108.8	113.7	118.6	123.5	114.1
105°	106.9	110.6	114.2	118.0	121.7	126.8	133.2	139.5	145.9	152.3	157.1
107.5°	132.8	135.6	138.6	141.5	144.3	148.9	155.1	161.3	167.5	173.7	178.0
110°	149.8	152.3	154.8	157.3	159.8	164.1	170.2	176.4	182.6	188.7	192.6



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	166.3	168.6	171.1	173.5	175.9	179.9	185.6	191.2	196.9	202.6	206.1
115°	191.6	193.3	195.0	196.7	198.4	201.8	206.9	212.1	217.2	222.3	226.1
117.5°	215.1	216.3	217.4	218.7	219.8	222.9	227.9	233.0	238.0	243.0	246.4
120°	230.5	231.3	232.1	232.9	233.7	236.4	241.0	245.7	250.3	255.0	258.4
122.5°	245.4	245.7	246.0	246.3	246.6	248.9	253.5	258.1	262.7	267.2	270.6
125°	266.1	266.3	266.4	266.5	266.6	268.6	272.6	276.5	280.4	284.4	287.7
127.5°	286.2	286.1	286.1	286.0	285.9	287.6	291.0	294.5	297.9	301.4	304.3
130°	298.7	298.6	298.5	298.4	298.3	299.6	302.6	305.4	308.2	311.0	314.0
132.5°	310.7	310.7	310.6	310.6	310.6	311.7	314.1	316.4	318.8	321.2	324.0
135°	327.9	327.8	327.7	327.7	327.6	328.3	329.7	331.2	332.6	334.0	336.8
137.5°	343.8	343.7	343.6	343.5	343.3	343.7	344.6	345.4	346.3	347.2	349.8
140°	354.2	354.2	354.2	354.2	354.2	354.3	354.6	355.0	355.2	355.5	357.9
142.5°	363.0	363.2	363.4	363.6	363.9	364.0	364.0	364.0	364.0	364.0	366.0
145°	377.1	377.2	377.3	377.3	377.4	377.4	377.4	377.4	377.4	377.4	378.4
147.5°	388.5	388.8	389.1	389.3	389.6	389.6	389.6	389.5	389.4	389.4	389.6
150°	396.8	396.9	397.1	397.2	397.4	397.4	397.3	397.2	397.1	397.1	397.1
152.5°	403.1	403.3	403.5	403.8	404.0	404.0	403.9	403.7	403.6	403.5	403.6
155°	412.7	412.8	412.8	412.9	413.0	412.9	412.7	412.5	412.3	412.1	412.4
157.5°	420.9	420.8	420.8	420.8	420.8	420.6	420.4	420.1	419.8	419.6	420.0
160°	425.7	425.5	425.3	425.1	424.8	424.7	424.6	424.5	424.4	424.3	424.8
162.5°	430.0	429.7	429.4	429.1	428.9	428.7	428.6	428.5	428.5	428.4	428.9
165°	435.4	435.0	434.6	434.2	433.9	433.7	433.7	433.7	433.7	433.7	434.3
167.5°	439.6	439.2	438.8	438.5	438.1	437.9	437.8	437.8	437.7	437.7	438.4
170°	442.1	441.6	441.1	440.7	440.3	440.1	440.2	440.3	440.3	440.4	440.9
172.5°	443.7	443.2	442.7	442.3	441.9	441.7	441.8	441.9	441.9	442.0	442.5
175°	445.4	444.9	444.5	444.0	443.6	443.4	443.5	443.6	443.7	443.7	444.4
177.5°	446.2	445.7	445.4	444.9	444.5	444.3	444.5	444.6	444.7	444.8	445.4
180°	445.4	445.4	445.4	445.4	445.4	445.4	445.4	445.4	445.4	445.4	445.4



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	655.0	655.0	655.0	655.0	655.0	655.0	655.0	655.0
2.5°	652.7	653.6	654.5	654.9	654.8	654.6	654.5	654.4
5°	651.0	652.2	653.6	654.1	654.0	653.8	653.7	653.5
7.5°	647.5	648.9	650.4	651.1	650.9	650.7	650.5	650.4
10°	643.9	645.5	646.9	647.5	647.4	647.2	647.1	646.9
12.5°	639.0	640.4	641.7	642.3	642.3	642.2	642.2	642.2
15°	630.0	631.5	632.9	633.6	633.5	633.3	633.1	632.9
17.5°	619.1	620.6	622.1	622.7	622.6	622.5	622.4	622.3
20°	610.6	612.2	613.8	614.6	614.6	614.6	614.6	614.6
22.5°	600.6	602.2	603.8	604.8	605.0	605.3	605.6	605.9
25°	585.2	587.0	588.8	589.7	589.9	590.1	590.2	590.4
27.5°	568.0	569.6	571.3	572.2	572.4	572.6	572.8	573.0
30°	555.9	557.7	559.5	560.5	560.8	561.2	561.5	561.8
32.5°	543.5	545.5	547.6	548.7	549.1	549.4	549.8	550.1
35°	523.9	526.1	528.4	529.8	530.3	530.7	531.2	531.8
37.5°	503.4	505.7	508.0	509.4	509.9	510.5	511.0	511.5
40°	489.0	491.4	493.9	495.4	496.1	496.7	497.4	498.0
42.5°	474.9	477.5	480.2	481.8	482.4	482.9	483.4	483.9
45°	453.0	455.7	458.5	460.2	461.1	461.9	462.7	463.5
47.5°	429.8	432.7	435.5	437.4	438.5	439.4	440.5	441.4
50°	413.6	416.9	420.1	422.3	423.2	424.1	425.2	426.1
52.5°	397.2	400.4	403.7	405.8	406.8	407.7	408.7	409.7
55°	372.5	375.8	379.0	381.2	382.1	383.1	384.1	385.0
57.5°	346.6	350.5	354.4	356.8	357.7	358.5	359.5	360.4
60°	328.8	332.5	336.2	338.7	340.1	341.4	342.7	344.0
62.5°	311.1	314.9	318.7	321.1	322.4	323.8	325.1	326.4
65°	283.9	288.0	292.1	294.7	296.1	297.4	298.7	300.0
67.5°	257.2	261.4	265.5	268.2	269.5	270.7	272.0	273.2
70°	238.4	242.8	247.1	250.0	251.1	252.2	253.4	254.5
72.5°	220.5	224.8	229.0	231.8	233.1	234.3	235.6	236.9
75°	193.2	197.7	202.4	205.4	206.8	208.3	209.8	211.2
77.5°	167.9	172.5	177.1	180.2	181.7	183.3	184.8	186.4
80°	151.4	156.2	161.1	164.2	165.5	166.8	168.1	169.5
82.5°	135.2	140.2	145.2	148.5	149.9	151.3	152.7	154.2
85°	112.4	117.3	122.2	125.5	127.1	128.8	130.4	132.1
87.5°	94.8	99.6	104.5	107.6	109.1	110.6	112.0	113.5
90°	90.3	95.5	100.7	104.0	105.4	106.9	108.3	109.7
92.5°	86.2	91.2	96.3	99.5	100.9	102.2	103.5	104.8
95°	80.9	85.7	90.5	93.7	95.3	96.8	98.3	99.9
97.5°	76.7	81.0	85.3	88.2	89.7	91.1	92.7	94.2
100°	76.7	79.8	82.9	85.1	86.3	87.6	88.8	90.0
102.5°	104.8	95.5	86.2	82.2	83.5	84.7	86.1	87.4
105°	161.8	166.5	171.3	173.0	171.6	170.2	168.9	167.6
107.5°	182.4	186.7	191.1	194.0	195.4	196.9	198.3	199.8
110°	196.5	200.4	204.2	207.0	208.5	210.1	211.6	213.1





TEST NUMBER: P332538-830

CATALOG NUMBER: S124DIP-S575D365U830-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	209.7	213.3	216.9	219.5	221.1	222.6	224.2	225.8
115°	229.8	233.6	237.2	239.7	240.8	242.0	243.2	244.3
117.5°	249.7	253.1	256.5	258.7	260.0	261.3	262.6	263.8
120°	261.8	265.2	268.6	270.9	272.0	273.2	274.4	275.5
122.5°	273.9	277.3	280.6	282.9	283.8	284.8	285.9	286.9
125°	291.0	294.4	297.7	299.8	300.9	301.9	302.9	304.1
127.5°	307.2	310.1	312.9	314.9	315.9	317.1	318.1	319.1
130°	317.0	320.0	323.0	325.0	326.0	327.0	327.9	328.9
132.5°	327.0	329.8	332.7	334.6	335.5	336.4	337.3	338.3
135°	339.6	342.3	345.1	347.0	348.2	349.3	350.3	351.5
137.5°	352.3	354.9	357.3	359.0	359.8	360.5	361.4	362.1
140°	360.2	362.6	365.0	366.6	367.4	368.3	369.2	370.1
142.5°	368.1	370.0	372.0	373.4	374.1	374.8	375.5	376.3
145°	379.5	380.6	381.6	382.6	383.3	384.2	384.9	385.8
147.5°	389.7	389.9	390.1	390.5	391.1	391.7	392.3	392.9
150°	397.1	397.1	397.1	397.1	397.2	397.3	397.3	397.4
152.5°	403.7	403.8	404.0	404.0	403.9	403.9	403.9	403.8
155°	412.6	412.9	413.2	413.3	413.0	412.8	412.6	412.4
157.5°	420.4	420.8	421.1	421.1	420.8	420.4	420.0	419.6
160°	425.3	425.7	426.1	426.1	425.7	425.3	424.8	424.3
162.5°	429.2	429.7	430.2	430.1	429.6	429.1	428.6	428.1
165°	434.9	435.5	436.1	436.0	435.4	434.7	434.0	433.4
167.5°	439.0	439.7	440.3	440.3	439.5	438.8	438.0	437.3
170°	441.6	442.1	442.7	442.6	442.0	441.2	440.5	439.7
172.5°	443.2	443.7	444.3	444.2	443.5	442.6	441.9	441.0
175°	445.1	445.7	446.4	446.3	445.4	444.5	443.6	442.7
177.5°	445.8	446.3	446.8	446.6	445.9	445.2	444.5	443.7
180°	445.4	445.4	445.4	445.4	445.4	445.4	445.4	445.4

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