

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: P332540-830

Luminaire Tested: **S124DIP-S575D365U830-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P332540-830  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-18,  
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-D4  
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 575 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 365 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

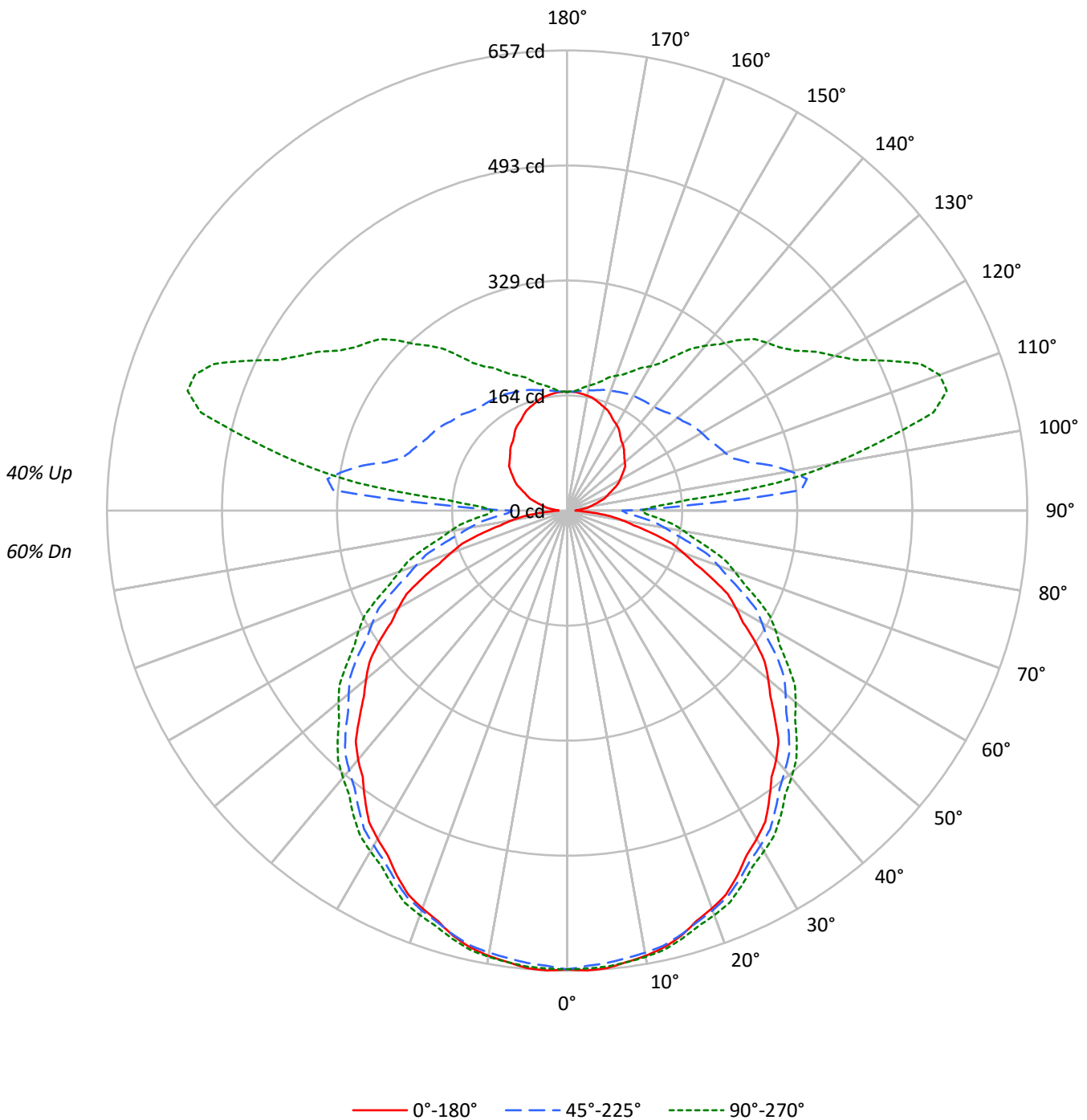
Lumens per Lamp: N/A  
Luminaire Lumens: 3466.8 lumens  
Efficiency: N/A  
Efficacy: 126.1 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39  
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')  
CIE Type: General Diffuse  
  
Input Watts (W): 27.5  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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: P332540-830

CATALOG NUMBER: S124DIP-S575D365U830-4F0-1E-UDD-D4

### Luminous Intensity Polar Plot





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**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	50	30	10	50	30	10	50	30	10	0																			
RCR																																														
0	109	109	109	109	102	102	102	102	89	89	89	76	76	76	65	65	65	60																												
1	99	94	89	85	92	88	84	80	76	73	70	65	63	61	55	54	52	48																												
2	89	81	74	69	83	76	70	65	66	61	57	57	53	50	48	46	43	39																												
3	81	71	63	57	75	66	59	54	58	52	48	50	45	42	42	39	36	32																												
4	74	63	54	48	69	59	51	45	51	45	40	44	39	35	37	34	31	27																												
5	68	56	47	41	63	52	44	39	46	39	35	39	34	31	34	30	27	24																												
6	63	50	41	35	58	47	39	33	41	35	30	35	30	27	30	26	23	21																												
7	58	45	37	31	54	42	35	29	37	31	26	32	27	23	28	24	21	18																												
8	54	41	33	27	50	38	31	26	34	28	23	29	24	21	25	21	18	16																												
9	50	37	29	24	46	35	28	23	31	25	21	27	22	19	23	19	17	14																												
10	47	34	27	22	43	32	25	21	28	23	19	25	20	17	22	18	15	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



TEST NUMBER: P332540-830

CATALOG NUMBER: S124DIP-S575D365U830-4F0-1E-UDD-D4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	62.0	1.8
10°-20°	177.7	5.1
20°-30°	268.7	7.8
30°-40°	325.1	9.4
40°-50°	343.7	9.9
50°-60°	323.5	9.3
60°-70°	268.4	7.7
70°-80°	188.5	5.4
80°-90°	107.5	3.1
90°-100°	185.7	5.4
100°-110°	301.7	8.7
110°-120°	259.7	7.5
120°-130°	209.8	6.1
130°-140°	167.8	4.8
140°-150°	123.9	3.6
150°-160°	86.0	2.5
160°-170°	50.6	1.5
170°-180°	16.5	0.5
0°-30°	508.4	14.7
0°-40°	833.5	24.0
0°-60°	1500.7	43.3
0°-90°	2065.1	59.6
90°-120°	747.2	21.6
90°-150°	1248.7	36.0
90°-180°	1402.0	40.4
0°-180°	3466.8	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°	12	44	79	100	107	8
95°	20	69	335	217	171	20
105°	46	78	267	537	541	49
115°	73	98	229	424	506	73
125°	98	117	214	353	398	88
135°	115	137	199	301	344	89
145°	132	150	191	243	270	83
155°	149	161	186	210	220	69
165°	162	167	178	189	192	46
175°	169	170	171	173	173	16
180°	170	170	170	170	170	



TEST NUMBER: P332540-830

CATALOG NUMBER: S124DIP-S575D365U830-4F0-1E-UDD-D4

**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°	21.8	28.6	35.4	42.1	48.8	55.7	63.2	70.4	77.7	84.9	89.6
90°	12.1	19.2	26.8	33.6	40.4	47.2	56.3	63.2	71.0	78.6	83.0
92.5°	15.0	22.5	31.6	41.5	52.2	65.6	89.5	122.3	154.6	174.7	161.7
95°	20.5	26.9	35.6	45.3	58.7	78.7	114.4	175.7	262.0	335.3	347.3
97.5°	28.4	33.0	40.5	49.1	60.6	77.9	106.9	158.6	244.4	345.3	414.2
100°	33.4	37.6	44.2	52.4	63.0	79.0	105.0	148.9	223.3	323.6	413.2
102.5°	38.7	43.0	48.7	56.2	66.0	81.1	105.1	144.4	208.5	297.9	390.2
105°	45.6	49.9	54.8	62.0	71.3	85.6	107.6	141.3	194.0	266.9	349.3
107.5°	54.7	58.0	62.3	69.3	77.7	91.3	111.7	142.6	188.1	247.8	315.7
110°	60.1	63.2	67.0	73.3	81.6	94.6	115.0	144.0	186.3	240.3	298.4



TEST NUMBER: P332540-830

CATALOG NUMBER: S124DIP-S575D365U830-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	65.4	68.1	72.1	77.9	85.9	98.6	118.1	145.6	185.3	235.0	287.1
115°	73.0	75.5	79.3	84.1	91.9	104.2	122.7	148.0	184.2	229.3	274.9
117.5°	81.6	83.5	86.4	91.0	97.7	110.0	127.5	150.7	183.4	224.6	266.8
120°	86.9	88.1	91.0	95.1	101.2	113.2	130.5	152.6	182.9	221.7	261.9
122.5°	92.3	93.0	95.5	99.0	105.3	116.6	133.7	154.5	182.7	218.5	256.8
125°	98.5	99.7	101.5	105.0	111.2	122.5	138.6	158.0	183.0	214.4	249.5
127.5°	104.6	105.5	107.7	111.8	118.2	129.0	143.8	161.0	182.5	209.2	240.2
130°	107.4	108.7	111.1	115.9	122.2	133.0	146.9	162.6	182.2	206.0	234.3
132.5°	110.9	111.9	115.2	119.7	126.4	136.5	149.9	164.8	182.2	203.5	229.2
135°	115.1	116.4	119.7	125.4	132.4	141.6	153.7	166.9	181.7	198.8	220.7
137.5°	119.9	121.0	124.5	129.8	136.9	145.3	156.2	167.9	180.6	195.4	213.7
140°	123.4	124.2	127.7	133.2	140.1	148.1	158.3	169.0	180.5	193.3	209.8
142.5°	126.5	127.5	130.8	136.2	142.9	150.6	160.2	169.9	180.7	192.2	206.8
145°	131.7	132.5	135.6	140.2	146.3	153.5	162.2	171.3	180.9	191.2	202.8
147.5°	137.6	137.7	140.5	145.2	150.2	156.7	164.9	172.8	181.3	190.0	199.5
150°	141.3	141.5	144.0	147.8	152.7	158.9	166.3	173.5	181.3	189.2	197.6
152.5°	144.2	144.2	146.8	150.5	155.0	160.8	167.3	174.1	180.7	187.8	195.4
155°	148.9	149.2	151.3	154.6	158.3	163.2	168.9	174.6	179.9	185.9	192.2
157.5°	153.6	153.6	155.5	158.1	161.3	165.2	170.0	174.6	179.0	183.8	189.0
160°	156.6	156.6	157.9	160.2	162.9	166.5	170.6	174.6	178.2	182.2	186.5
162.5°	159.2	159.0	160.0	162.1	164.5	167.4	171.1	174.6	177.4	180.6	184.5
165°	162.2	162.2	162.9	164.6	166.3	168.2	171.3	173.9	175.9	178.2	180.9
167.5°	165.2	164.9	165.2	166.5	167.4	169.0	171.2	173.1	174.3	175.8	177.7
170°	166.5	166.3	166.5	167.6	168.2	169.2	170.9	172.6	173.2	174.2	175.6
172.5°	167.9	167.6	167.6	168.3	168.7	169.5	170.6	172.0	172.2	172.6	173.7
175°	169.2	168.9	168.9	169.2	169.6	169.6	170.2	171.3	170.9	170.9	171.5
177.5°	169.8	169.6	169.3	169.6	169.6	169.6	169.8	170.3	169.8	169.8	170.1
180°	169.6	169.6	169.6	169.6	169.6	169.6	169.6	169.6	169.6	169.6	169.6



TEST NUMBER: P332540-830

CATALOG NUMBER: S124DIP-S575D365U830-4F0-1E-UDD-D4

**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°	94.4	99.2	104.0	107.1	108.6	110.1	111.4	112.9
90°	88.0	93.1	98.2	101.2	102.8	104.4	105.5	106.8
92.5°	143.7	132.1	126.7	122.9	120.3	119.8	120.0	121.3
95°	319.4	272.2	232.0	202.6	187.8	178.9	174.4	171.4
97.5°	432.5	417.5	389.3	357.3	334.8	316.1	307.6	302.1
100°	466.3	477.3	465.4	443.6	415.7	396.5	387.7	386.2
102.5°	461.2	498.5	507.6	500.0	483.5	470.0	460.8	460.0
105°	429.6	491.3	528.4	544.8	546.8	545.4	542.0	541.3
107.5°	387.2	452.6	503.0	535.4	553.0	561.8	566.3	568.3
110°	361.5	422.8	474.9	514.1	538.9	554.3	561.6	565.9





TEST NUMBER: P332540-830

CATALOG NUMBER: S124DIP-S575D365U830-4F0-1E-UDD-D4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	341.5	396.1	445.3	484.4	512.6	530.7	540.5	546.7
115°	320.1	364.7	407.3	441.6	469.0	490.2	502.0	505.8
117.5°	307.1	344.4	378.4	407.8	431.6	449.7	461.8	465.2
120°	300.2	334.4	364.3	390.2	410.6	426.5	436.5	441.4
122.5°	294.0	327.2	354.7	377.7	394.8	408.6	417.1	421.9
125°	284.6	316.3	342.4	362.8	377.0	387.7	395.0	397.9
127.5°	273.1	303.5	329.3	348.7	363.3	373.0	379.4	382.5
130°	264.9	294.2	319.7	339.3	354.0	363.3	369.6	372.6
132.5°	256.7	284.3	309.2	328.7	343.1	353.5	359.5	362.5
135°	244.3	268.6	291.5	310.0	324.2	334.6	340.9	343.8
137.5°	233.5	254.2	273.7	290.4	303.6	313.7	318.9	322.1
140°	227.2	245.0	262.1	277.6	290.0	298.2	303.7	307.2
142.5°	221.8	237.4	252.1	265.6	276.5	284.1	288.9	291.4
145°	214.5	226.8	237.8	247.9	256.8	263.2	267.2	269.5
147.5°	208.5	217.5	225.7	233.4	240.0	245.4	248.5	249.6
150°	205.6	213.2	219.9	225.8	231.2	235.5	237.5	237.8
152.5°	202.6	209.2	215.4	220.3	224.8	228.3	229.5	229.9
155°	198.2	203.5	208.5	212.5	215.8	218.5	219.5	219.5
157.5°	193.5	197.9	202.2	205.4	207.8	209.9	210.5	210.5
160°	190.6	194.2	197.8	200.6	202.6	204.5	204.9	204.9
162.5°	187.7	190.8	193.6	196.0	197.5	199.4	199.8	199.5
165°	183.5	185.6	187.8	189.5	190.9	192.2	191.9	191.5
167.5°	179.6	181.2	183.0	184.0	184.6	185.6	185.5	185.2
170°	177.2	178.2	179.6	180.6	181.3	181.5	181.3	181.3
172.5°	175.1	175.8	176.6	177.4	177.8	178.0	177.8	177.2
175°	172.2	172.6	173.2	173.2	173.2	173.9	173.2	172.6
177.5°	170.3	170.6	170.6	170.9	170.6	170.9	170.3	169.8
180°	169.6	169.6	169.6	169.6	169.6	169.6	169.6	169.6

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