

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: P334805

Luminaire Tested: **S124IP-S365U927-4F0-1E-UDD-4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P334805  
TEST 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: S124IP-S365U927-4F0-1E-UDD-4  
Description: DEFINE 4 INDIRECT LED LUMINAIRE, BATWING OPTIC  
PENDANT MOUNT, 365 LUMENS PER FOOT  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

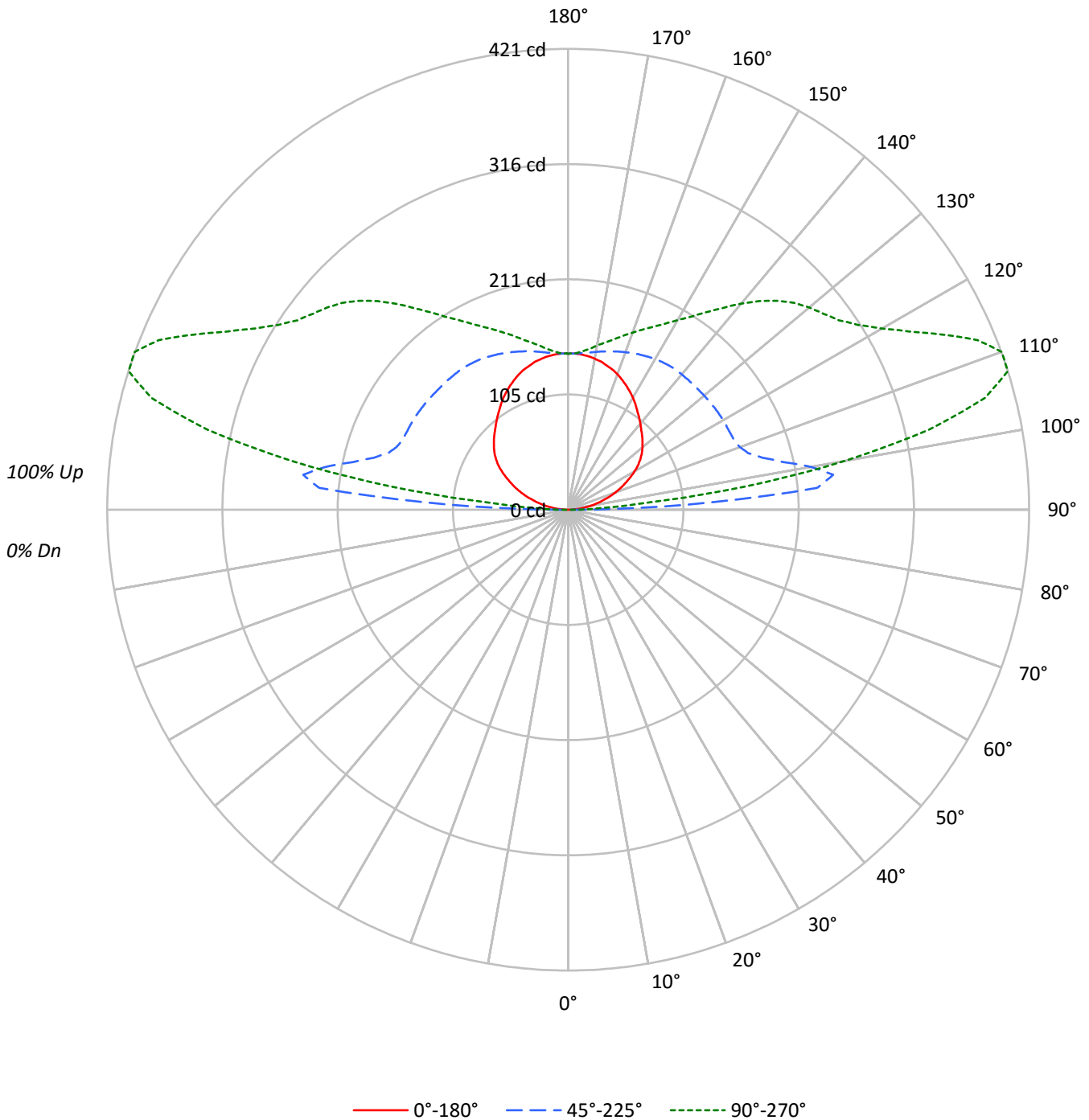
Lumens per Lamp: N/A  
Luminaire Lumens: 1038.5 lumens  
Efficiency: N/A  
Efficacy: 91.1 lumens/watt  
Spacing Criteria (0/90/45): - / - / -  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: Indirect

Input Watts (W): 11.4  
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: P334805  
CATALOG NUMBER: S124IP-S365U927-4F0-1E-UDD-4

### Luminous Intensity Polar Plot





TEST NUMBER: P334805

CATALOG NUMBER: S124IP-S365U927-4F0-1E-UDD-4

**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	95	95	95	95	81	81	81	81	56	56	56	32	32	32	10	10	10	0
1	87	83	79	76	74	71	68	65	48	47	45	28	27	26	9	9	8	0
2	79	72	66	62	67	62	57	53	42	40	37	24	23	22	8	7	7	0
3	72	63	56	51	61	54	49	44	37	34	31	21	20	18	7	6	6	0
4	65	56	48	43	56	48	42	37	33	29	26	19	17	16	6	6	5	0
5	60	49	42	36	51	42	36	32	29	25	22	17	15	13	5	5	4	0
6	55	44	36	31	47	38	32	27	26	22	19	15	13	11	5	4	4	0
7	50	39	32	27	43	34	28	23	23	19	17	14	11	10	4	4	3	0
8	47	35	28	23	40	30	24	20	21	17	14	12	10	9	4	3	3	0
9	43	32	25	20	37	27	22	18	19	15	13	11	9	8	4	3	3	0
10	40	29	22	18	34	25	19	16	17	14	11	10	8	7	3	3	2	0

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

	0°	45°	90°
0°	0	0	0
5°	0	0	0
10°	0	0	0
15°	0	0	0
20°	0	0	0
25°	0	0	0
30°	0	0	0
35°	0	0	0
40°	0	0	0
45°	0	0	0
50°	0	0	0
55°	0	0	0
60°	0	0	0
65°	0	0	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0



TEST NUMBER: P334805

CATALOG NUMBER: S124IP-S365U927-4F0-1E-UDD-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	0.0	0.0
10°-20°	0.0	0.0
20°-30°	0.0	0.0
30°-40°	0.0	0.0
40°-50°	0.0	0.0
50°-60°	0.0	0.0
60°-70°	0.0	0.0
70°-80°	0.0	0.0
80°-90°	0.6	0.1
90°-100°	103.3	9.9
100°-110°	215.6	20.8
110°-120°	191.7	18.5
120°-130°	161.4	15.5
130°-140°	134.6	13.0
140°-150°	102.8	9.9
150°-160°	72.3	7.0
160°-170°	42.5	4.1
170°-180°	13.8	1.3
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	0.6	0.1
90°-120°	510.6	49.2
90°-150°	909.4	87.6
90°-180°	1038.0	100.0
0°-180°	1038.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	0	0	0	0	0	
5°	0	0	0	0	0	0
15°	0	0	0	0	0	0
25°	0	0	0	0	0	0
35°	0	0	0	0	0	0
45°	0	0	0	0	0	0
55°	0	0	0	0	0	0
65°	0	0	0	0	0	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	2	5	6	6	1
95°	9	29	228	113	68	10
105°	33	47	184	395	394	35
115°	58	72	164	315	378	57
125°	80	96	163	268	302	72
135°	96	114	162	238	270	74
145°	110	126	161	200	220	69
155°	125	135	156	177	184	58
165°	136	141	150	159	161	39
175°	142	142	144	146	145	14
180°	142	142	142	142	142	



TEST NUMBER: P334805

CATALOG NUMBER: S124IP-S365U927-4F0-1E-UDD-4

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
47.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.3	0.8	1.7	2.0	2.2	2.2	3.9	3.9	4.5	5.0	4.8
92.5°	3.9	5.6	8.7	12.9	17.9	25.2	42.6	69.7	96.0	109.8	91.3
95°	9.2	10.1	12.9	16.5	23.2	35.0	59.4	105.3	172.2	228.2	234.6
97.5°	15.4	15.4	17.9	21.3	27.2	37.2	56.6	96.0	164.9	244.1	294.3
100°	21.3	21.3	23.2	26.6	31.9	40.9	57.4	89.0	146.1	225.1	296.8
102.5°	26.9	27.4	29.1	32.2	37.2	45.6	60.2	87.1	133.5	201.3	275.8
105°	32.8	33.6	35.0	38.4	43.4	51.5	65.0	88.2	127.4	183.7	249.5
107.5°	39.2	39.8	41.2	44.8	49.6	57.7	70.0	91.6	125.7	172.2	227.9
110°	45.6	46.2	47.6	51.0	56.0	63.6	75.9	95.5	126.3	166.9	212.5



TEST NUMBER: P334805

CATALOG NUMBER: S124IP-S365U927-4F0-1E-UDD-4

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	51.8	52.4	54.0	57.1	62.2	69.7	81.5	99.7	128.0	164.3	203.8
115°	57.7	58.5	60.5	63.3	68.6	76.2	87.4	104.2	130.2	163.8	199.1
117.5°	63.8	64.7	66.4	69.4	74.5	82.3	93.0	108.6	132.4	163.5	196.5
120°	70.0	70.6	72.5	75.6	80.4	88.2	98.8	113.4	134.9	163.5	194.6
122.5°	75.6	76.2	78.1	80.9	86.2	93.8	104.4	117.9	137.5	163.2	192.3
125°	80.4	81.5	83.2	86.2	91.6	99.4	109.5	122.4	140.0	162.9	189.8
127.5°	84.8	85.7	87.6	91.0	96.6	104.4	114.2	126.3	141.9	162.4	186.5
130°	88.5	89.6	91.8	96.0	101.4	109.5	119.0	129.9	144.2	162.1	183.4
132.5°	92.1	93.0	96.0	100.0	105.8	113.4	122.9	133.5	146.1	161.8	180.6
135°	95.5	96.6	99.4	104.2	110.0	117.3	126.6	136.6	148.1	161.5	177.8
137.5°	98.8	100.0	103.0	107.5	113.7	120.7	129.4	138.9	149.2	161.5	175.3
140°	102.5	103.3	106.4	111.2	117.0	123.8	132.2	141.1	150.6	161.3	173.3
142.5°	106.4	107.2	110.0	114.5	120.1	126.6	134.7	142.8	151.7	161.3	171.6
145°	110.0	110.9	113.7	117.6	122.9	129.1	136.3	143.9	152.0	160.7	169.7
147.5°	114.2	114.5	117.0	121.2	125.7	131.3	138.3	145.0	152.3	159.9	168.0
150°	118.2	118.4	120.7	124.0	128.2	133.5	139.7	145.9	152.3	159.0	166.0
152.5°	121.8	121.8	124.0	127.1	130.8	135.5	140.8	146.4	151.7	157.6	163.8
155°	125.2	125.4	127.1	129.9	133.0	137.2	141.9	146.7	151.2	156.2	161.5
157.5°	128.5	128.5	130.2	132.4	135.2	138.6	142.8	146.7	150.6	154.8	159.3
160°	131.6	131.6	132.7	134.7	136.9	140.0	143.3	146.7	149.8	153.1	156.8
162.5°	134.4	134.1	134.9	136.6	138.6	140.8	143.9	146.7	148.9	151.5	154.5
165°	136.3	136.3	136.9	138.3	139.7	141.4	143.9	146.1	147.8	149.8	152.0
167.5°	138.6	138.3	138.6	139.7	140.5	141.9	143.9	145.6	146.7	148.1	149.8
170°	140.0	139.7	140.0	140.8	141.4	142.2	143.6	145.0	145.6	146.4	147.5
172.5°	141.4	141.1	141.1	141.7	141.9	142.5	143.3	144.5	144.5	144.7	145.6
175°	142.2	141.9	141.9	142.2	142.5	142.5	143.1	143.9	143.6	143.6	144.2
177.5°	142.8	142.5	142.2	142.5	142.5	142.5	142.8	143.3	142.8	142.8	143.1
180°	142.5	142.5	142.5	142.5	142.5	142.5	142.5	142.5	142.5	142.5	142.5



TEST NUMBER: P334805

CATALOG NUMBER: S124IP-S365U927-4F0-1E-UDD-4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
47.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	5.0	5.3	5.6	5.6	5.9	6.2	5.9	5.9
92.5°	67.5	50.4	39.8	32.8	28.6	26.6	25.5	25.5
95°	207.5	164.1	126.6	99.4	85.7	77.0	72.0	68.3
97.5°	298.7	277.2	246.4	215.0	196.0	179.2	170.8	164.1
100°	337.7	343.3	329.5	308.8	284.5	267.4	259.0	256.7
102.5°	335.7	369.0	377.4	371.8	359.2	348.0	339.1	337.4
105°	313.6	362.0	389.7	401.2	401.8	399.5	395.6	393.9
107.5°	286.4	338.8	377.4	400.9	413.2	418.3	420.5	420.8
110°	262.3	310.8	351.4	382.2	402.0	413.8	418.8	421.4





TEST NUMBER: P334805

CATALOG NUMBER: S124IP-S365U927-4F0-1E-UDD-4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	244.7	286.1	323.9	354.7	378.0	392.8	400.4	404.8
115°	234.1	268.5	301.3	328.1	350.3	367.1	376.0	378.3
117.5°	227.9	257.0	283.6	307.1	326.7	341.3	350.8	352.2
120°	224.0	250.0	272.4	292.3	308.3	320.6	327.9	330.9
122.5°	220.6	245.5	265.4	282.2	295.1	305.2	311.1	314.1
125°	216.7	240.8	260.1	275.5	286.7	294.8	300.1	301.8
127.5°	212.2	235.5	254.8	269.3	280.5	287.8	292.3	294.0
130°	206.6	228.7	247.8	262.6	274.1	281.1	285.6	287.3
132.5°	200.7	221.2	239.7	254.5	265.7	273.8	278.0	279.7
135°	195.4	213.6	230.7	244.7	255.9	263.7	268.2	269.9
137.5°	190.4	206.3	221.2	234.1	244.7	252.8	256.5	258.4
140°	186.2	199.3	211.9	223.7	233.5	239.7	243.6	245.8
142.5°	182.3	193.5	203.8	213.6	222.0	227.6	231.0	232.4
145°	178.6	188.1	196.5	204.4	211.4	216.1	218.9	220.3
147.5°	175.5	183.4	190.4	196.8	202.1	206.3	208.6	209.1
150°	172.7	179.2	184.8	189.8	194.3	197.9	199.6	199.9
152.5°	169.7	175.0	180.0	183.9	187.6	190.4	191.2	191.5
155°	166.6	171.1	175.3	178.6	181.4	183.7	184.5	184.5
157.5°	163.2	167.1	170.8	173.6	175.8	177.5	178.1	178.1
160°	160.1	163.2	166.3	168.5	170.2	171.9	172.2	172.2
162.5°	157.1	159.6	161.8	163.8	164.9	166.6	166.9	166.6
165°	154.3	155.9	157.9	159.3	160.4	161.5	161.3	161.0
167.5°	151.5	152.9	154.5	155.4	155.9	156.8	156.8	156.5
170°	148.9	149.8	150.9	151.7	152.3	152.6	152.3	152.3
172.5°	146.7	147.3	147.8	148.4	148.7	148.9	148.7	148.1
175°	144.7	145.0	145.6	145.6	145.6	146.1	145.6	145.0
177.5°	143.3	143.6	143.6	143.9	143.6	143.9	143.3	142.8
180°	142.5	142.5	142.5	142.5	142.5	142.5	142.5	142.5

(END OF REPORT)