

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: P334630

Luminaire Tested: **S123IP-S365U927-4F0-1E-UDD-4**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P334630  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-17)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S123IP-S365U927-4F0-1E-UDD-4  
Description: DEFINE 3 INDIRECT LED LUMINAIRE, BATWING OPTIC  
PENDANT MOUNT, 365 LUMENS PER FOOT  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

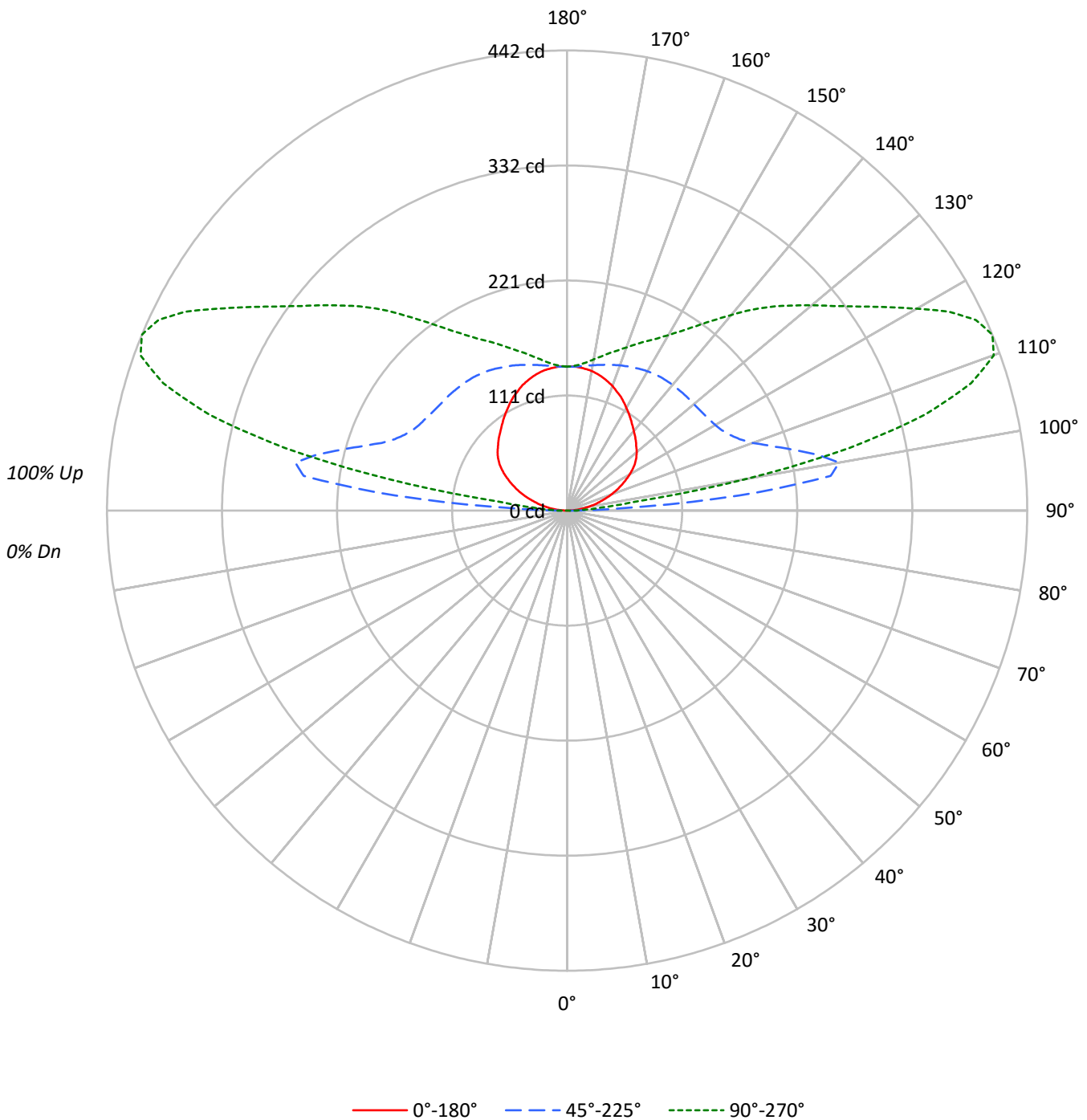
Lumens per Lamp: N/A  
Luminaire Lumens: 1041.0 lumens  
Efficiency: N/A  
Efficacy: 91.3 lumens/watt  
Spacing Criteria (0/90/45): - / - / -  
Luminous Opening: Rectangular (W 0.25' x L: 4' x H: 0')  
CIE Type: Indirect

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: P334630  
CATALOG NUMBER: S123IP-S365U927-4F0-1E-UDD-4

### 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	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: P334630

CATALOG NUMBER: S123IP-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°	0.8	0.1
90°-100°	75.1	7.2
100°-110°	219.7	21.1
110°-120°	214.5	20.6
120°-130°	170.9	16.4
130°-140°	134.8	12.9
140°-150°	100.6	9.7
150°-160°	70.1	6.7
160°-170°	41.2	4.0
170°-180°	13.4	1.3
0°-30°	0.0	0.0
0°-40°	0.0	0.0
0°-60°	0.0	0.0
0°-90°	0.8	0.1
90°-120°	509.3	48.9
90°-150°	915.5	87.9
90°-180°	1040.0	99.9
0°-180°	1041.0	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°	1	3	7	8	8	1
95°	10	31	166	48	32	10
105°	32	48	225	394	356	34
115°	57	72	172	378	433	57
125°	80	94	161	291	342	71
135°	94	112	158	240	277	72
145°	107	122	156	197	216	67
155°	121	131	151	172	179	56
165°	132	136	145	154	156	37
175°	138	138	139	141	141	13
180°	138	138	138	138	138	



TEST NUMBER: P334630

CATALOG NUMBER: S123IP-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°	0.6	1.1	1.7	2.5	3.1	3.6	4.5	5.3	6.2	7.0	6.7
92.5°	4.2	6.2	9.0	11.5	14.3	19.3	28.3	43.1	57.7	52.1	38.9
95°	9.5	10.4	13.4	18.2	25.5	36.4	60.2	101.9	147.8	166.0	134.7
97.5°	15.1	15.4	17.9	22.1	29.4	41.4	64.9	113.4	190.6	255.3	264.0
100°	20.7	21.0	23.0	26.9	33.6	44.5	64.1	105.5	179.2	265.1	320.3
102.5°	26.6	27.2	28.8	32.5	38.4	48.2	65.2	98.8	162.4	246.9	323.1
105°	32.5	33.3	35.0	38.4	43.7	52.3	67.5	96.3	149.2	225.1	305.4
107.5°	38.6	39.5	41.2	44.5	49.5	57.7	71.1	95.7	139.7	205.8	280.2
110°	45.4	46.2	47.6	50.7	55.4	63.3	75.9	97.1	134.7	189.8	256.7



TEST NUMBER: P334630

CATALOG NUMBER: S123IP-S365U927-4F0-1E-UDD-4

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	51.5	52.3	53.7	56.8	61.6	69.1	80.6	99.9	131.9	179.2	236.3
115°	57.4	58.5	60.2	63.0	67.7	75.3	85.9	103.0	131.6	172.2	220.6
117.5°	63.3	64.7	66.1	68.6	73.9	80.9	91.5	106.9	131.9	167.4	210.2
120°	69.4	70.3	71.7	74.5	79.8	86.8	96.9	111.4	133.0	164.3	202.4
122.5°	74.7	75.6	77.0	80.1	85.1	92.7	102.5	115.6	134.9	162.4	196.0
125°	79.8	80.3	82.0	85.1	90.4	98.0	107.8	120.1	136.9	160.7	190.6
127.5°	83.7	84.5	86.5	89.6	95.5	103.0	112.5	123.7	139.1	159.8	185.6
130°	87.3	88.2	90.7	94.1	99.9	107.5	116.7	127.4	141.4	159.0	181.7
132.5°	90.1	91.3	94.1	98.3	104.1	111.4	120.4	130.7	143.1	158.7	178.0
135°	93.5	94.6	97.7	101.9	107.8	115.3	124.0	133.5	144.7	158.4	175.0
137.5°	96.6	97.7	100.8	105.3	111.1	118.1	126.5	135.8	145.8	157.9	172.2
140°	99.7	101.1	103.9	108.3	113.9	120.9	129.1	137.5	147.0	157.6	169.6
142.5°	103.0	104.1	107.2	111.1	116.7	123.2	131.0	139.1	147.8	157.0	167.4
145°	106.7	107.5	110.0	114.2	119.0	125.4	132.7	140.3	148.1	156.5	165.4
147.5°	110.3	110.9	113.4	117.0	121.8	127.4	134.1	141.1	148.1	155.6	163.5
150°	113.9	114.2	116.5	120.1	124.0	129.1	135.5	141.4	148.1	154.5	161.5
152.5°	117.6	117.6	119.8	122.9	126.3	131.0	136.3	141.9	147.2	153.1	159.3
155°	121.2	121.2	122.9	125.7	128.8	132.7	137.5	141.9	146.7	151.4	157.0
157.5°	124.0	124.3	125.7	128.2	131.0	134.1	138.0	142.2	145.8	150.0	154.5
160°	127.4	127.4	128.5	130.7	132.7	135.5	138.9	142.2	145.3	148.4	152.0
162.5°	129.9	129.9	130.7	132.4	134.1	136.3	139.1	141.9	144.2	146.7	149.5
165°	132.4	132.1	132.7	134.1	135.2	137.2	139.4	141.4	143.1	145.0	147.2
167.5°	134.4	134.1	134.4	135.5	136.3	137.7	139.4	141.1	141.9	143.3	145.0
170°	136.1	135.5	135.8	136.6	137.2	137.7	139.1	140.3	140.8	141.7	143.1
172.5°	137.2	136.9	136.9	137.5	137.7	138.0	139.1	140.0	140.0	140.3	141.1
175°	138.0	137.7	137.5	138.0	138.0	138.3	138.9	139.4	139.1	139.1	139.7
177.5°	138.6	138.3	138.0	138.3	138.3	138.3	138.6	139.1	138.6	138.3	138.6
180°	138.3	138.3	138.3	138.3	138.3	138.3	138.3	138.3	138.3	138.3	138.3



TEST NUMBER: P334630

CATALOG NUMBER: S123IP-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°	7.0	7.3	7.6	8.1	7.8	8.1	8.4	8.1
92.5°	27.7	21.6	18.8	16.8	16.2	15.1	15.4	14.8
95°	100.8	68.3	53.5	43.4	38.1	35.6	33.6	32.5
97.5°	231.5	174.7	137.7	105.8	87.1	76.4	69.7	66.6
100°	330.1	307.4	274.6	234.9	206.6	186.2	175.2	175.5
102.5°	362.8	367.6	351.9	330.3	309.9	294.8	286.1	278.0
105°	363.9	391.9	397.2	390.0	377.1	366.4	357.5	356.1
107.5°	347.1	391.1	412.9	420.5	418.8	413.8	410.1	407.0
110°	320.8	372.3	407.6	427.2	435.0	437.3	436.7	436.1





TEST NUMBER: P334630

CATALOG NUMBER: S123IP-S365U927-4F0-1E-UDD-4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	294.8	347.7	388.3	414.9	430.8	438.9	441.7	442.0
115°	272.4	321.1	362.2	392.8	413.8	426.1	431.7	433.1
117.5°	255.0	298.1	335.9	367.6	389.4	403.1	411.5	413.5
120°	241.9	279.7	313.3	341.5	363.6	379.3	386.0	387.7
122.5°	231.5	264.8	295.3	321.1	340.1	353.8	361.4	363.6
125°	222.6	253.1	279.9	302.3	320.3	332.6	339.6	341.5
127.5°	214.4	242.1	266.8	287.5	303.7	314.4	320.8	322.5
130°	206.9	232.1	254.7	273.8	288.6	298.7	304.6	306.8
132.5°	199.9	222.6	243.3	261.2	274.9	285.0	290.0	291.4
135°	193.7	213.6	231.8	247.7	261.5	269.9	274.9	276.9
137.5°	187.8	204.6	220.9	235.2	246.9	255.6	259.8	261.5
140°	182.8	197.1	210.5	222.6	233.2	241.0	245.5	245.2
142.5°	178.0	189.8	201.0	211.1	219.8	226.5	230.4	230.1
145°	174.4	183.6	192.6	200.7	207.7	213.6	215.8	216.4
147.5°	171.3	178.9	186.4	192.3	197.9	202.1	204.4	204.6
150°	168.0	174.4	180.3	185.6	189.8	192.9	194.6	194.6
152.5°	164.9	170.2	175.2	179.4	182.5	185.3	186.2	186.2
155°	161.8	166.3	170.5	173.8	176.4	178.6	179.2	179.4
157.5°	158.4	162.4	165.7	168.5	170.8	172.4	173.0	173.0
160°	155.6	158.7	161.5	163.5	165.4	167.1	167.1	166.8
162.5°	152.3	154.8	157.3	159.0	160.1	161.5	161.5	161.2
165°	149.5	151.2	153.1	154.5	155.6	156.8	156.5	156.5
167.5°	147.0	148.4	149.5	150.6	151.2	152.0	151.7	151.7
170°	144.5	145.3	146.4	147.0	147.2	147.8	147.5	147.5
172.5°	142.2	142.8	143.6	143.9	143.9	144.5	143.9	143.6
175°	140.3	140.5	141.1	141.1	141.1	141.4	141.1	140.8
177.5°	138.9	139.1	139.4	139.4	139.1	139.4	138.9	138.9
180°	138.3	138.3	138.3	138.3	138.3	138.3	138.3	138.3

(END OF REPORT)