

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: FAIL-SAFE

Report Number: 766660

Luminaire Tested: **INGC-150xxxx**

Issue Date: 3/3/2020



Test Information

Test Method: LM-79-08
Report Number: 766660
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: INGC-150xxxx
Description: FAIL-SAFE CLEAR 12 x 12
Light Source: #041 & #042 - GE 75W A-19 INSIDE FROSTED 2380 LUMENS
Ballast/Driver: -

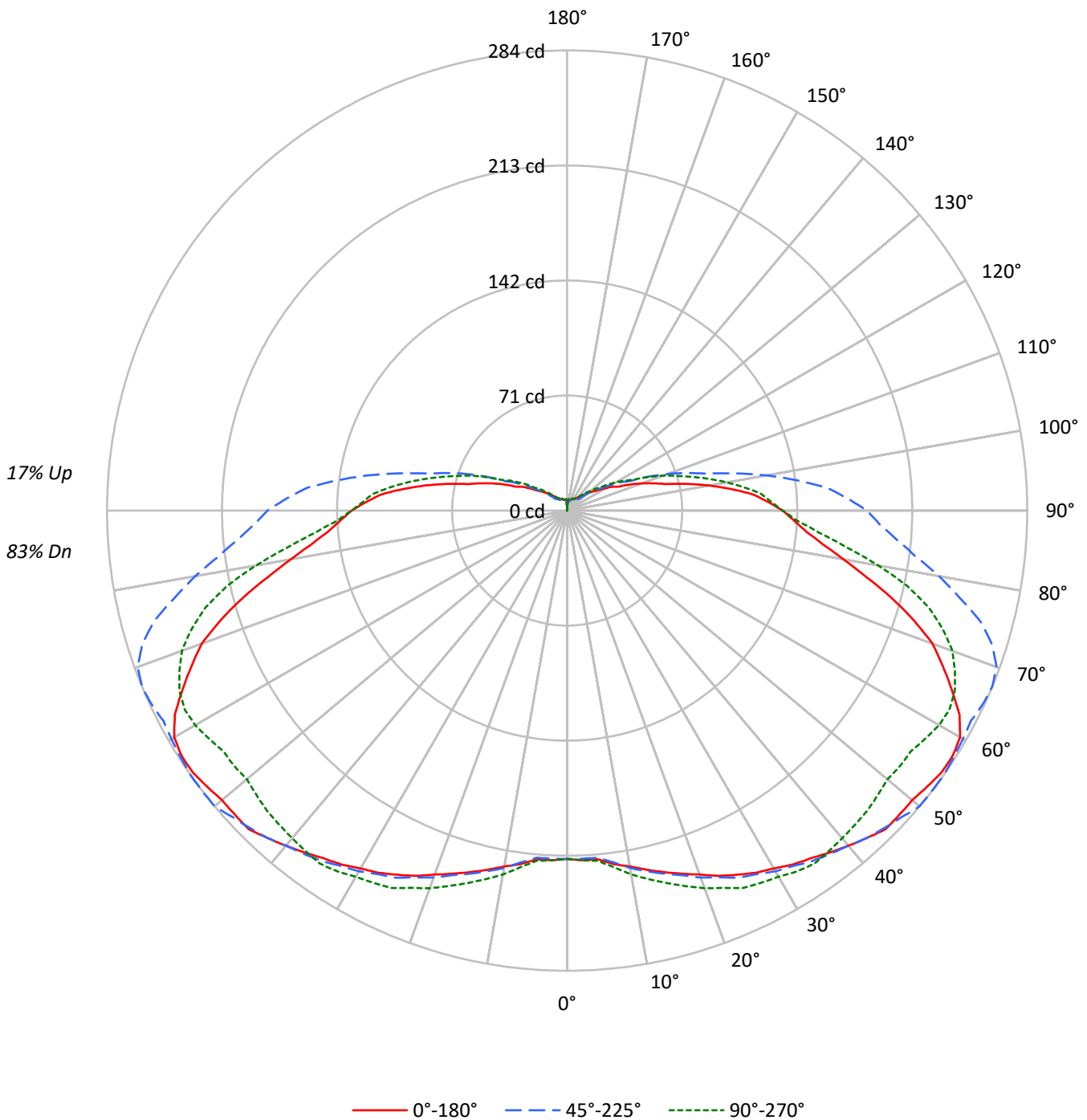
Summary

Lumens per Lamp: 1190 (2 lamps)
Luminaire Lumens: 1896.8 lumens
Efficiency: 79.7%
Efficacy: 12.6 lumens/watt
Spacing Criteria (0/90/45): 1.86 / 1.81 / 2.01
Luminous Opening: Point Source (0' x 0' x 0')
CIE Type: Semi-Direct

Input Watts (W): 150
Input Voltage (V): NR
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: 766660
CATALOG NUMBER: INGC-150xxxx

Luminous Intensity Polar Plot





TEST NUMBER: 766660
 CATALOG NUMBER: INGC-150xxxx

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	92	92	92	92	88	88	88	88	81	81	81	74	74	74	69	69	69	66
1	79	74	69	64	75	70	66	62	64	61	57	59	56	53	53	51	49	46
2	70	61	54	48	66	59	52	47	53	48	43	49	44	40	44	40	37	35
3	63	52	44	38	59	50	43	37	45	39	34	41	36	32	37	33	29	27
4	57	45	37	31	54	43	36	30	39	33	28	36	30	26	32	28	24	22
5	52	40	32	25	49	38	30	25	35	28	23	31	26	21	29	24	20	18
6	47	35	27	21	45	34	26	21	31	24	20	28	22	18	26	21	17	15
7	44	32	24	18	41	30	23	18	28	21	17	25	20	16	23	18	15	13
8	40	29	21	16	38	27	20	16	25	19	15	23	18	14	21	16	13	11
9	37	26	19	14	36	25	18	14	23	17	13	21	16	12	19	15	11	10
10	35	24	17	13	33	23	16	12	21	15	11	19	14	11	18	13	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	Luminaire represents a point source (luminous area is zero).		
5°	No luminance values can be calculated.		
10°			
15°			
20°			
25°			
30°			
35°			
40°			
45°			
50°			
55°			
60°			
65°			
70°			
75°			
80°			
85°			



TEST NUMBER: 766660
 CATALOG NUMBER: INGC-150xxxx

ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	45°	90°	135°	180°	Flux
0°-10°	20.9	1.1	0.9	0°	215	215	215	215	215	
10°-20°	66.3	3.5	2.8	5°	216	215	217	215	216	21
20°-30°	116.1	6.1	4.9	15°	231	232	238	232	231	66
30°-40°	165.8	8.7	7.0	25°	248	250	257	250	248	115
40°-50°	211.6	11.2	8.9	35°	262	264	266	264	262	165
50°-60°	248.8	13.1	10.5	45°	278	277	262	277	278	214
60°-70°	274.3	14.5	11.5	55°	282	284	259	284	282	252
70°-80°	257.9	13.6	10.8	65°	262	283	264	283	262	259
80°-90°	205.1	10.8	8.6	75°	207	264	231	264	207	218
90°-100°	154.5	8.1	6.5	85°	148	204	156	204	148	126
100°-110°	89.3	4.7	3.8	90°	133	185	133	185	133	73
110°-120°	43.6	2.3	1.8	95°	115	161	120	161	115	88
120°-130°	20.9	1.1	0.9	105°	63	88	80	88	63	70
130°-140°	10.1	0.5	0.4	115°	35	43	45	43	35	37
140°-150°	5.5	0.3	0.2	125°	21	22	25	22	21	19
150°-160°	3.6	0.2	0.2	135°	13	10	14	10	13	11
160°-170°	1.9	0.1	0.1	145°	9	8	9	8	9	6
170°-180°	0.5	0.0	0.0	155°	8	8	8	8	8	4
0°-30°	203.4	10.7	8.5	165°	7	6	7	6	7	2
0°-40°	369.2	19.5	15.5	175°	7	6	7	6	7	1
0°-60°	829.5	43.7	34.9	180°	0	0	0	0	0	
0°-90°	1566.8	82.6	65.8							
90°-120°	287.4	15.2	12.1							
90°-150°	323.9	17.1	13.6							
90°-180°	330.0	17.4	13.9							
0°-180°	1896.8	100.0	79.7							



TEST NUMBER: 766660
 CATALOG NUMBER: INGC-150xxxx

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	215	215	215	215	215	215	215	215	215
2.5°	216	215	215	216	216	216	215	215	216
5°	216	215	215	216	217	216	215	215	216
7.5°	220	219	219	221	222	221	219	219	220
10°	223	223	224	225	228	225	224	223	223
12.5°	227	227	228	230	233	230	228	227	227
15°	231	231	232	235	238	235	232	231	231
17.5°	235	235	236	239	243	239	236	235	235
20°	239	240	241	244	248	244	241	240	239
22.5°	244	244	245	249	252	249	245	244	244
25°	248	248	250	254	257	254	250	248	248
27.5°	252	252	253	257	259	257	253	252	252
30°	255	255	257	260	261	260	257	255	255
32.5°	259	259	260	263	264	263	260	259	259
35°	262	263	264	266	266	266	264	263	262
37.5°	266	267	267	266	265	266	267	267	266
40°	270	272	270	267	264	267	270	272	270
42.5°	274	277	274	267	263	267	274	277	274
45°	278	281	277	267	262	267	277	281	278
47.5°	278	283	280	267	260	267	280	283	278
50°	278	284	284	266	258	266	284	284	278
52.5°	280	285	284	266	259	266	284	285	280
55°	282	286	284	267	259	267	284	286	282
57.5°	282	289	283	270	262	270	283	289	282
60°	280	288	282	276	265	276	282	288	280
62.5°	273	286	281	282	266	282	281	286	273
65°	262	281	283	285	264	285	283	281	262
67.5°	251	275	284	283	259	283	284	275	251
70°	240	266	282	278	253	278	282	266	240
72.5°	224	255	275	268	243	268	275	255	224
75°	207	243	264	257	231	257	264	243	207
77.5°	189	231	248	242	215	242	248	231	189
80°	173	218	233	226	195	226	233	218	173
82.5°	159	208	217	207	174	207	217	208	159
85°	148	198	204	191	156	191	204	198	148
87.5°	140	189	193	179	142	179	193	189	140
90°	133	180	185	166	133	166	185	180	133
92.5°	124	166	173	155	126	155	173	166	124
95°	115	153	161	144	120	144	161	153	115
97.5°	102	134	143	130	110	130	143	134	102
100°	89	116	125	115	100	115	125	116	89
102.5°	76	98	106	101	90	101	106	98	76
105°	63	80	88	87	80	87	88	80	63
107.5°	56	69	77	76	71	76	77	69	56
110°	49	59	66	65	63	65	66	59	49



TEST NUMBER: 766660
 CATALOG NUMBER: INGC-150xxxx

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
112.5°	42	48	55	54	54	54	55	48	42
115°	35	38	43	43	45	43	43	38	35
117.5°	32	33	38	38	40	38	38	33	32
120°	28	29	32	33	35	33	32	29	28
122.5°	24	25	27	28	30	28	27	25	24
125°	21	20	22	23	25	23	22	20	21
127.5°	19	18	19	21	22	21	19	18	19
130°	17	16	16	18	19	18	16	16	17
132.5°	15	14	13	15	17	15	13	14	15
135°	13	12	10	13	14	13	10	12	13
137.5°	12	11	10	12	13	12	10	11	12
140°	11	10	9	11	11	11	9	10	11
142.5°	10	9	9	10	10	10	9	9	10
145°	9	8	8	8	9	8	8	8	9
147.5°	9	8	8	8	9	8	8	8	9
150°	8	8	8	8	8	8	8	8	8
152.5°	8	8	8	8	8	8	8	8	8
155°	8	8	8	8	8	8	8	8	8
157.5°	8	8	7	8	8	8	7	8	8
160°	7	7	7	7	7	7	7	7	7
162.5°	7	7	7	7	7	7	7	7	7
165°	7	7	6	6	7	6	6	7	7
167.5°	7	6	6	6	7	6	6	6	7
170°	7	6	6	6	7	6	6	6	7
172.5°	7	6	6	6	7	6	6	6	7
175°	7	6	6	6	7	6	6	6	7
177.5°	3	3	3	3	3	3	3	3	3
180°	0	0	0	0	0	0	0	0	0

(END OF REPORT)