

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: IRiS

Report Number: H21245

Luminaire Tested: **PN3MR-E3AAC2**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: H21245
Test Lab:
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: IRiS
Catalog Number: PN3MR-E3AAC2
Description: IRIS 3.5 IN RECESSED ADJUSTABLE DOWNLIGHT
WITH CLEAR LENS AND BEAM AT 30 DEGREES
Light Source: Q50MR16C/NSP15 50 WATTS 750 LUMENS
Ballast/Driver: -

Summary

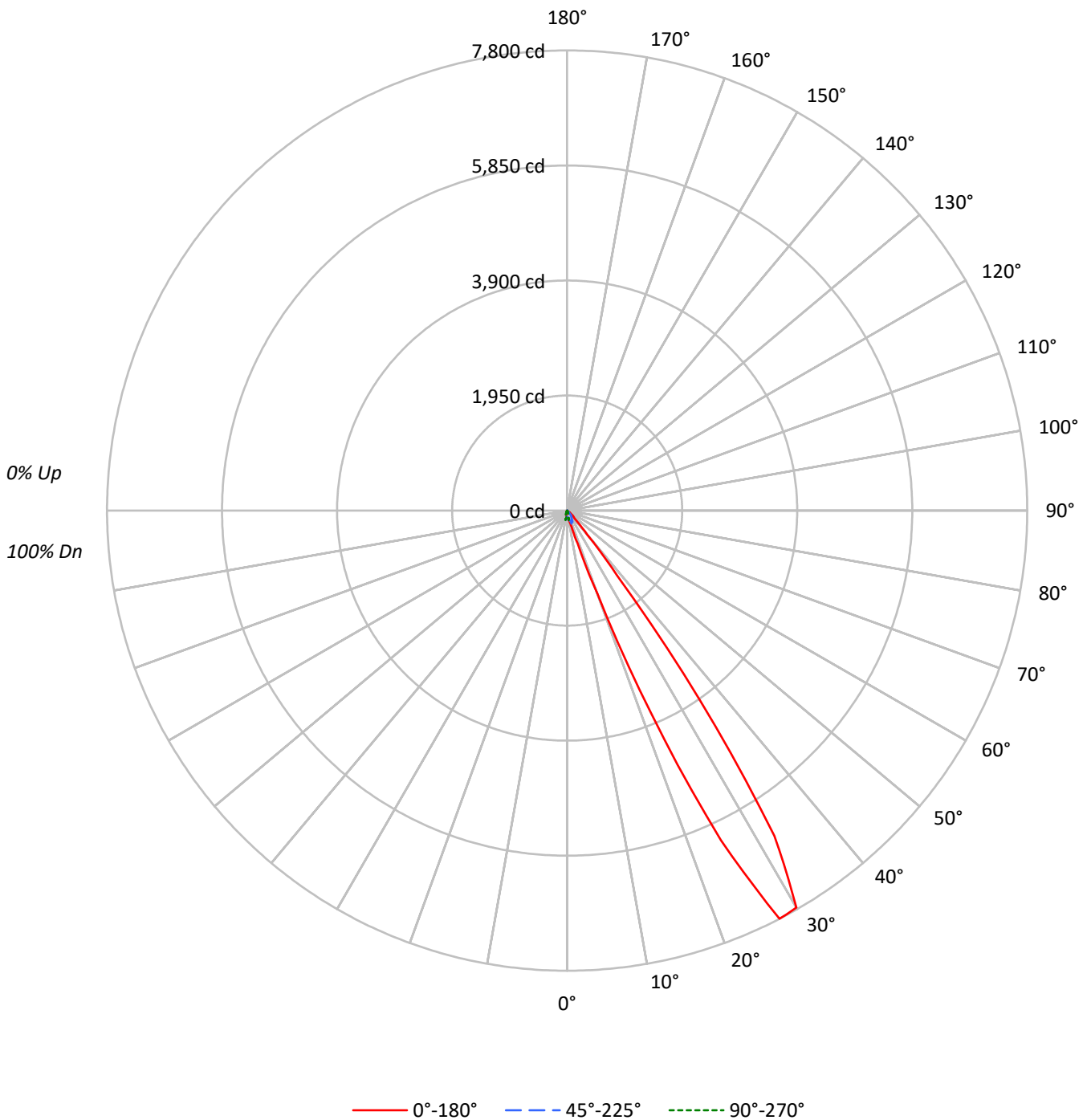
Lumens per Lamp: 750 (1 lamp)
Luminaire Lumens: 609.8 lumens
Efficiency: 81.3%
Efficacy: 12.2 lumens/watt
Spacing Criteria (0/90/45): 1.81 / 0.7 / 1.1
Luminous Opening: (L: 0 ' x W: -0.29 ' x H: 0 '
CIE Type: Direct

Input Watts (W): 50
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



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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	97	97	97	97	95	95	95	95	90	90	90		86	86	86		83	83	83	81
1	92	89	87	85	90	87	85	84	84	83	81		81	80	79		78	77	76	75
2	86	82	78	75	85	81	77	74	78	75	73		75	73	71		73	71	70	68
3	81	75	71	67	80	74	70	67	72	68	65		70	67	64		68	66	63	62
4	76	69	64	60	75	68	63	60	66	62	59		65	61	58		63	60	58	56
5	71	64	58	54	70	63	58	54	61	57	53		60	56	53		59	55	52	51
6	67	59	53	49	66	58	53	49	57	52	48		55	51	48		54	50	48	46
7	63	54	48	44	61	53	48	44	52	47	44		51	47	44		50	46	43	42
8	59	50	44	40	58	49	44	40	48	43	40		47	43	40		46	42	39	38
9	55	46	40	36	54	45	40	36	45	40	36		44	39	36		43	39	36	35
10	52	42	37	33	51	42	37	33	41	36	33		41	36	33		40	36	33	32

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	Luminous shape not found,		
5°	reference photometric report, or contact		
10°	the photometric lab for calculations.		
15°			
20°			
25°			
30°			
35°			
40°			
45°			
50°			
55°			
60°			
65°			
70°			
75°			
80°			
85°			



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	45°	90°	135°	180°	Flux
0°-10°	11.5	1.9	1.5	0°	107	107	107	107	107	
10°-20°	41.7	6.8	5.6	5°	144	126	106	152	114	14
20°-30°	281.7	46.2	37.6	15°	276	170	113	44	39	150
30°-40°	241.6	39.6	32.2	25°	6163	215	34	19	18	2678
40°-50°	27.3	4.5	3.6	35°	3913	124	10	5	9	2407
50°-60°	4.9	0.8	0.7	45°	149	26	2	1	2	152
60°-70°	1.0	0.2	0.1	55°	30	4	1	1	1	30
70°-80°	0.1	0.0	0.0	65°	4	1	1	0	1	3
80°-90°	0.0	0.0	0.0	75°	1	1	0	0	0	1
90°-100°	0.0	0.0	0.0	85°	0	0	0	0	0	0
100°-110°	0.0	0.0	0.0	90°	0	0	0	0	0	0
110°-120°	0.0	0.0	0.0	95°	0	0	0	0	0	0
120°-130°	0.0	0.0	0.0	105°	0	0	0	0	0	0
130°-140°	0.0	0.0	0.0	115°	0	0	0	0	0	0
140°-150°	0.0	0.0	0.0	125°	0	0	0	0	0	0
150°-160°	0.0	0.0	0.0	135°	0	0	0	0	0	0
160°-170°	0.0	0.0	0.0	145°	0	0	0	0	0	0
170°-180°	0.0	0.0	0.0	155°	0	0	0	0	0	0
0°-30°	334.9	54.9	44.6	165°	0	0	0	0	0	0
0°-40°	576.4	94.5	76.9	175°	0	0	0	0	0	0
0°-60°	608.7	99.8	81.2	180°	0	0	0	0	0	0
0°-90°	609.8	100.0	81.3							
90°-120°	0.0	0.0	0.0							
90°-150°	0.0	0.0	0.0							
90°-180°	0.0	0.0	0.0							
0°-180°	609.8	100.0	81.3							



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CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	22.5°	45°	67.5°	90°	112.5°	135°
0°	107	107	107	107	107	107	107	107	107	107	107
2.5°	120	119	119	119	119	114	111	107	109	100	103
5°	144	144	144	143	142	134	126	113	106	136	152
7.5°	159	159	159	159	159	152	138	119	122	138	99
10°	163	163	163	164	163	159	150	132	164	97	77
12.5°	196	194	194	194	192	175	160	167	138	83	61
15°	276	272	267	265	258	202	170	213	113	62	44
17.5°	580	565	549	526	483	289	192	187	79	42	34
20°	1505	1449	1384	1251	1101	488	294	138	57	32	28
22.5°	3717	3690	3393	3131	2714	835	245	114	43	28	23
25°	6163	6017	5712	5206	4625	1271	215	92	34	28	19
27.5°	7800	7552	7192	6629	5868	1562	176	80	25	23	19
30°	7771	7634	7203	6501	5721	1525	150	63	18	15	11
32.5°	6536	6230	5772	5174	4430	1175	134	34	13	8	8
35°	3913	3779	3473	3097	2684	780	124	22	10	5	5
37.5°	1390	1368	1381	1326	1211	460	110	12	8	4	3
40°	528	521	506	489	476	267	88	11	8	2	2
42.5°	214	217	212	207	204	165	45	10	3	1	2
45°	149	150	151	151	150	125	26	7	2	1	1
47.5°	138	135	134	130	127	70	15	6	1	1	1
50°	81	80	80	78	76	44	8	3	1	1	1
52.5°	56	53	52	50	47	23	4	2	1	1	1
55°	30	28	26	25	24	11	4	1	1	1	1
57.5°	10	11	10	9	9	4	4	1	1	1	0
60°	5	5	6	6	6	5	3	1	1	0	0
62.5°	5	5	5	5	5	3	1	1	1	0	0
65°	4	3	4	5	6	4	1	1	1	0	0
67.5°	1	1	1	1	0	1	1	1	0	0	0
70°	1	1	0	0	1	0	0	0	0	0	0
72.5°	1	1	0	0	0	0	1	0	0	0	0
75°	1	0	0	0	1	0	1	0	0	0	0
77.5°	0	0	0	0	0	0	0	0	0	0	0
80°	1	0	0	0	0	0	0	0	0	0	0
82.5°	0	0	0	0	0	0	0	0	0	0	0
85°	0	0	0	0	0	0	0	0	0	0	0
87.5°	0	0	0	0	0	0	0	0	0	0	0
90°	0	0	0	0	0	0	0	0	0	0	0
92.5°	0	0	0	0	0	0	0	0	0	0	0
95°	0	0	0	0	0	0	0	0	0	0	0
97.5°	0	0	0	0	0	0	0	0	0	0	0
100°	0	0	0	0	0	0	0	0	0	0	0
102.5°	0	0	0	0	0	0	0	0	0	0	0
105°	0	0	0	0	0	0	0	0	0	0	0
107.5°	0	0	0	0	0	0	0	0	0	0	0
110°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	22.5°	45°	67.5°	90°	112.5°	135°
112.5°	0	0	0	0	0	0	0	0	0	0	0
115°	0	0	0	0	0	0	0	0	0	0	0
117.5°	0	0	0	0	0	0	0	0	0	0	0
120°	0	0	0	0	0	0	0	0	0	0	0
122.5°	0	0	0	0	0	0	0	0	0	0	0
125°	0	0	0	0	0	0	0	0	0	0	0
127.5°	0	0	0	0	0	0	0	0	0	0	0
130°	0	0	0	0	0	0	0	0	0	0	0
132.5°	0	0	0	0	0	0	0	0	0	0	0
135°	0	0	0	0	0	0	0	0	0	0	0
137.5°	0	0	0	0	0	0	0	0	0	0	0
140°	0	0	0	0	0	0	0	0	0	0	0
142.5°	0	0	0	0	0	0	0	0	0	0	0
145°	0	0	0	0	0	0	0	0	0	0	0
147.5°	0	0	0	0	0	0	0	0	0	0	0
150°	0	0	0	0	0	0	0	0	0	0	0
152.5°	0	0	0	0	0	0	0	0	0	0	0
155°	0	0	0	0	0	0	0	0	0	0	0
157.5°	0	0	0	0	0	0	0	0	0	0	0
160°	0	0	0	0	0	0	0	0	0	0	0
162.5°	0	0	0	0	0	0	0	0	0	0	0
165°	0	0	0	0	0	0	0	0	0	0	0
167.5°	0	0	0	0	0	0	0	0	0	0	0
170°	0	0	0	0	0	0	0	0	0	0	0
172.5°	0	0	0	0	0	0	0	0	0	0	0
175°	0	0	0	0	0	0	0	0	0	0	0
177.5°	0	0	0	0	0	0	0	0	0	0	0
180°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	157.5°	180°
0°	107	107
2.5°	114	123
5°	125	114
7.5°	83	78
10°	67	63
12.5°	52	51
15°	36	39
17.5°	28	30
20°	22	22
22.5°	19	18
25°	18	18
27.5°	19	19
30°	11	11
32.5°	8	9
35°	7	9
37.5°	4	5
40°	2	3
42.5°	2	2
45°	2	2
47.5°	1	2
50°	1	1
52.5°	1	1
55°	1	1
57.5°	1	1
60°	1	1
62.5°	1	1
65°	0	1
67.5°	0	0
70°	0	1
72.5°	0	0
75°	0	0
77.5°	0	0
80°	0	0
82.5°	0	0
85°	0	0
87.5°	0	0
90°	0	0
92.5°	0	0
95°	0	0
97.5°	0	0
100°	0	0
102.5°	0	0
105°	0	0
107.5°	0	0
110°	0	0



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CANDELA DISTRIBUTION (continued):

	157.5°	180°
112.5°	0	0
115°	0	0
117.5°	0	0
120°	0	0
122.5°	0	0
125°	0	0
127.5°	0	0
130°	0	0
132.5°	0	0
135°	0	0
137.5°	0	0
140°	0	0
142.5°	0	0
145°	0	0
147.5°	0	0
150°	0	0
152.5°	0	0
155°	0	0
157.5°	0	0
160°	0	0
162.5°	0	0
165°	0	0
167.5°	0	0
170°	0	0
172.5°	0	0
175°	0	0
177.5°	0	0
180°	0	0

(END OF REPORT)