

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: H21250

Luminaire Tested: **PN3MR-E3AAC**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: H21250
Test Lab:
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: IRiS
Catalog Number: PN3MR-E3AAC
Description: IRIS 3.5 IN RECESSED ADJUSTABLE DOWNLIGHT
WITH CLEAR LENS AND BEAM AT 45 DEGREES
Light Source: 37MR16/IR/SP10 37 WATTS 900 LUMENS
Ballast/Driver: -

Summary

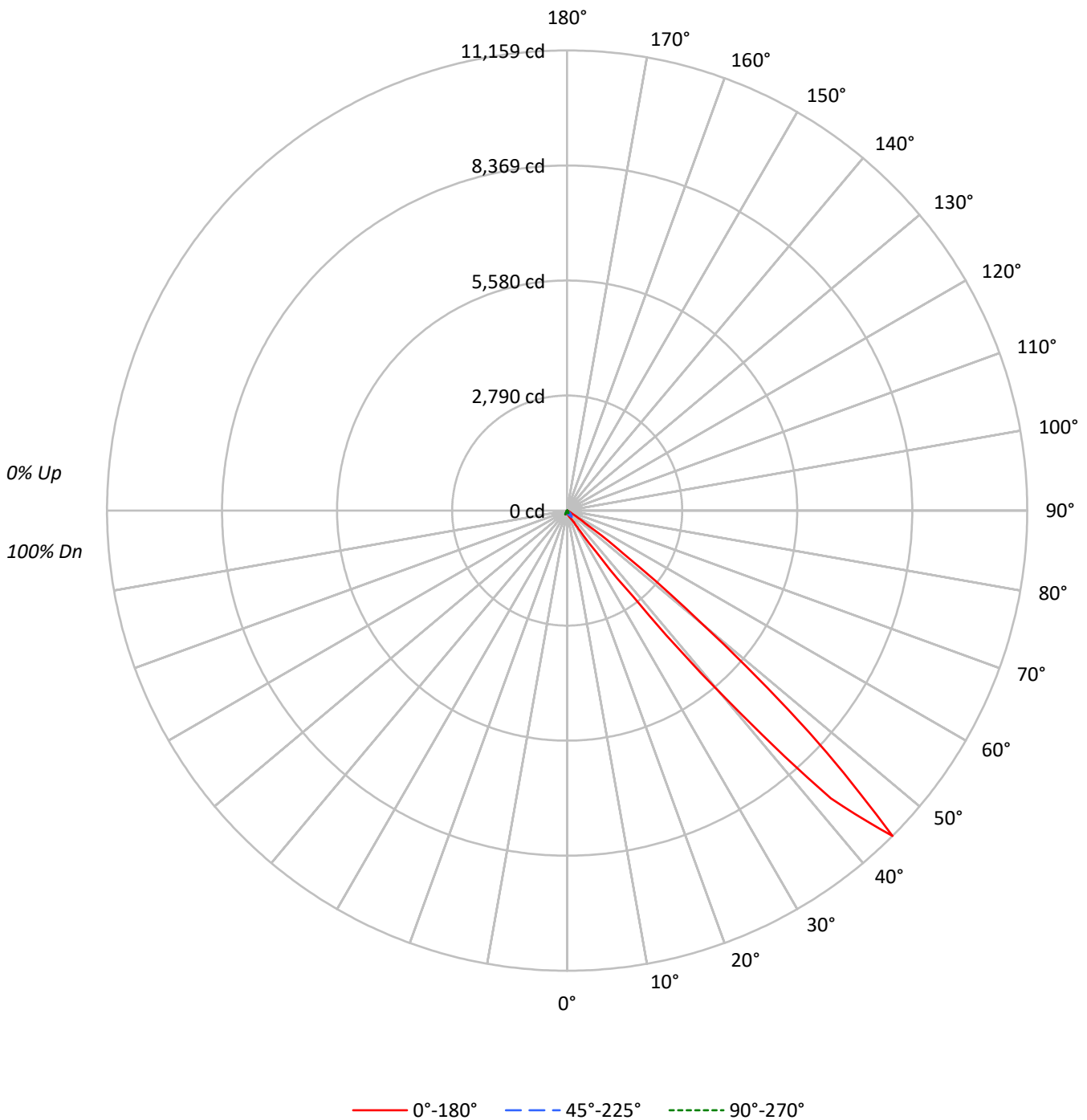
Lumens per Lamp: 900 (1 lamp)
Luminaire Lumens: 599.2 lumens
Efficiency: 66.6%
Efficacy: 16.2 lumens/watt
Spacing Criteria (0/90/45): 3.41 / 1.86 / 1.79
Luminous Opening: (L: 0 ' x W: -0.29 ' x H: 0 '
CIE Type: Direct

Input Watts (W): 37
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	79	79	79	79	77	77	77	77	74	74	74		71	71	71		68	68	68	67
1	74	71	69	67	72	70	68	66	67	65	64		64	63	62		62	61	60	59
2	68	63	59	56	66	62	58	55	59	56	54		57	55	53		55	53	51	50
3	62	55	51	47	60	54	50	46	53	49	45		51	47	45		49	46	44	42
4	56	49	43	39	55	48	43	39	46	42	38		45	41	38		43	40	37	36
5	51	43	37	33	50	42	37	33	41	36	32		40	35	32		38	35	32	30
6	47	38	32	28	45	37	32	28	36	31	27		35	30	27		34	30	27	25
7	43	33	28	23	41	33	27	23	32	27	23		31	26	23		30	26	23	21
8	39	30	24	20	38	29	24	20	28	23	20		28	23	20		27	23	19	18
9	36	27	21	17	35	26	21	17	25	20	17		25	20	17		24	20	17	15
10	33	24	18	15	32	23	18	15	23	18	14		22	18	14		21	17	14	13

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°	2.8	0.5	0.3	0°	15	15	15	15	15	
10°-20°	18.6	3.1	2.1	5°	34	22	19	19	17	5
20°-30°	44.6	7.4	5.0	15°	110	84	28	62	66	33
30°-40°	119.6	20.0	13.3	25°	213	112	84	62	49	104
40°-50°	339.4	56.6	37.7	35°	1210	191	35	26	27	1227
50°-60°	67.6	11.3	7.5	45°	11159	106	10	10	14	6480
60°-70°	6.1	1.0	0.7	55°	532	15	1	0	1	1006
70°-80°	0.3	0.1	0.0	65°	41	9	0	0	0	43
80°-90°	0.2	0.0	0.0	75°	1	0	0	0	0	2
90°-100°	0.0	0.0	0.0	85°	1	0	0	0	0	1
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°	66.0	11.0	7.3	165°	0	0	0	0	0	0
0°-40°	185.7	31.0	20.6	175°	0	0	0	0	0	0
0°-60°	592.6	98.9	65.8	180°	0	0	0	0	0	0
0°-90°	599.2	100.0	66.6							
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°	599.2	100.0	66.6							



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CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	22.5°	45°	67.5°	90°	112.5°	135°
0°	15	15	15	15	15	15	15	15	15	15	15
2.5°	19	19	19	19	19	19	19	18	17	16	15
5°	34	33	33	33	32	29	22	20	19	19	19
7.5°	71	70	70	70	67	58	30	20	22	23	26
10°	87	87	87	87	85	83	49	20	24	26	35
12.5°	98	97	96	96	95	92	73	22	26	32	45
15°	110	110	109	109	107	101	84	26	28	45	62
17.5°	127	127	126	125	121	110	88	30	38	59	68
20°	149	149	147	145	142	123	94	35	48	68	102
22.5°	179	177	175	172	167	138	102	45	58	98	99
25°	213	210	207	203	196	159	112	52	84	99	62
27.5°	253	252	248	242	234	183	123	64	112	62	45
30°	327	328	318	300	282	210	135	112	70	49	39
32.5°	579	567	526	469	402	238	158	96	51	38	33
35°	1210	1153	1034	856	681	274	191	64	35	26	26
37.5°	2627	2488	2145	1684	1243	322	180	42	31	28	27
40°	5708	5380	4335	3079	2033	313	152	25	27	20	20
42.5°	9466	8710	6667	4458	2717	301	126	20	21	14	17
45°	11159	10042	7301	4667	2700	276	106	17	10	8	10
47.5°	7968	7274	5399	3518	2012	241	93	16	5	5	5
50°	4257	3859	3029	2109	1222	206	44	14	3	2	3
52.5°	1732	1706	1389	987	613	166	23	10	1	1	1
55°	532	537	452	319	231	126	15	5	1	1	0
57.5°	185	177	160	146	136	79	9	2	0	0	0
60°	103	102	101	98	92	48	8	1	0	0	0
62.5°	67	68	67	64	62	26	9	1	0	0	0
65°	41	40	38	35	30	12	9	1	0	0	0
67.5°	14	15	13	13	12	7	1	1	0	0	0
70°	7	7	6	6	5	3	0	1	0	0	0
72.5°	2	2	2	2	2	1	0	1	0	0	0
75°	1	1	1	1	1	0	0	1	0	0	0
77.5°	1	0	0	0	0	0	0	1	0	0	0
80°	1	0	0	1	1	0	0	1	0	0	0
82.5°	1	0	0	1	1	0	0	1	0	0	0
85°	1	0	0	1	1	0	0	1	0	0	0
87.5°	1	0	0	1	1	0	0	1	1	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°	15	15
2.5°	14	14
5°	17	17
7.5°	28	28
10°	39	37
12.5°	56	56
15°	68	66
17.5°	80	87
20°	110	102
22.5°	78	71
25°	51	49
27.5°	46	46
30°	41	42
32.5°	39	42
35°	27	27
37.5°	28	26
40°	20	19
42.5°	27	20
45°	13	14
47.5°	6	7
50°	4	3
52.5°	2	2
55°	1	1
57.5°	0	0
60°	0	0
62.5°	0	0
65°	0	0
67.5°	0	0
70°	0	0
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)