

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: H21260

Luminaire Tested: **PN3MR-E3AAC2**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: H21260
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: 65MR16Q/40/FL 65 WATTS 1100 LUMENS
Ballast/Driver: -

Summary

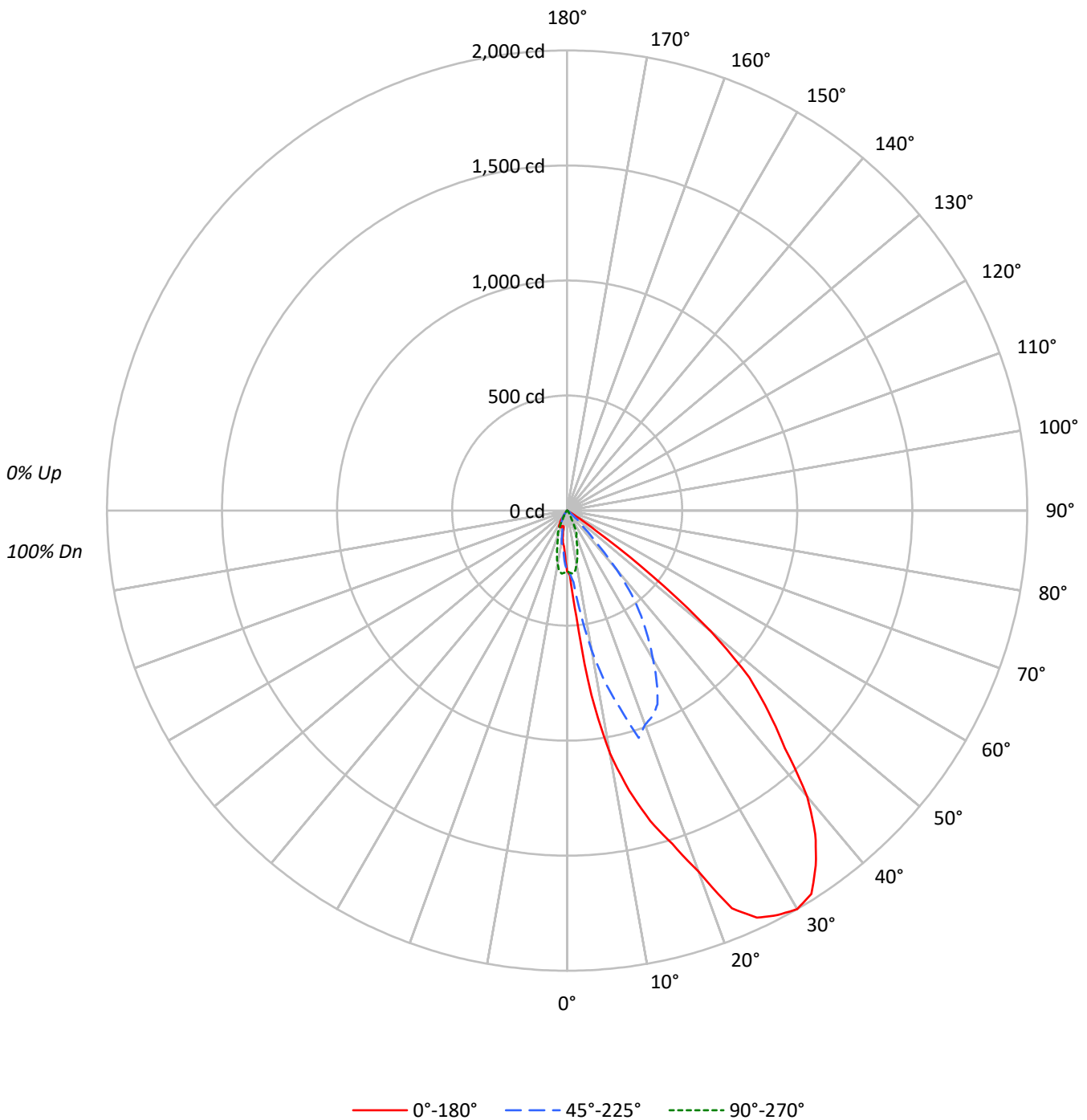
Lumens per Lamp: 1100 (1 lamp)
Luminaire Lumens: 821.1 lumens
Efficiency: 74.6%
Efficacy: 12.6 lumens/watt
Spacing Criteria (0/90/45): 2.29 / 0.59 / 1.21
Luminous Opening: (L: 0' x W: -0.29' x H: 0'
CIE Type: Direct

Input Watts (W): 65
Input Voltage (V): NR
Input Current (A_{in}): 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: H21260
CATALOG NUMBER: PN3MR-E3AAC2

Luminous Intensity Polar Plot





TEST NUMBER: H21260

CATALOG NUMBER: PN3MR-E3AAC2

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	89	89	89	89	87	87	87	87	83	83	83		79	79	79		76	76	76	75
1	84	82	79	78	82	80	78	76	77	75	74		74	73	72		72	71	70	68
2	79	75	71	68	77	73	70	67	71	68	66		69	66	64		66	65	63	62
3	74	68	64	60	72	67	63	60	65	62	59		63	60	58		61	59	57	56
4	69	62	58	54	68	62	57	53	60	56	53		58	55	52		57	54	52	50
5	65	57	52	48	63	56	52	48	55	51	47		54	50	47		52	49	47	45
6	60	53	47	43	59	52	47	43	51	46	43		50	46	43		48	45	42	41
7	57	48	43	39	55	48	43	39	47	42	39		46	42	39		45	41	38	37
8	53	45	39	36	52	44	39	36	43	39	35		42	38	35		42	38	35	34
9	50	41	36	33	49	41	36	32	40	36	32		39	35	32		39	35	32	31
10	47	38	33	30	46	38	33	30	37	33	30		37	32	29		36	32	29	28

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°			



TEST NUMBER: H21260

CATALOG NUMBER: PN3MR-E3AAC2

ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	45°	90°	135°	180°	Flux
0°-10°	30.6	3.7	2.8	0°	264	264	264	264	264	
10°-20°	130.0	15.8	11.8	5°	460	312	275	177	155	66
20°-30°	229.0	27.9	20.8	15°	1396	888	168	72	69	400
30°-40°	243.2	29.6	22.1	25°	1952	929	76	62	78	888
40°-50°	156.5	19.1	14.2	35°	1884	561	18	23	27	1164
50°-60°	29.7	3.6	2.7	45°	1239	93	4	2	3	947
60°-70°	1.2	0.1	0.1	55°	152	10	1	1	1	234
70°-80°	0.6	0.1	0.1	65°	3	1	1	0	0	3
80°-90°	0.4	0.0	0.0	75°	1	1	1	0	0	1
90°-100°	0.0	0.0	0.0	85°	0	1	1	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°	389.5	47.4	35.4	165°	0	0	0	0	0	0
0°-40°	632.8	77.1	57.5	175°	0	0	0	0	0	0
0°-60°	818.9	99.7	74.4	180°	0	0	0	0	0	0
0°-90°	821.1	100.0	74.6							
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°	821.1	100.0	74.6							



TEST NUMBER: H21260

CATALOG NUMBER: PN3MR-E3AAC2

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	22.5°	45°	67.5°	90°	112.5°	135°
0°	264	264	264	264	264	264	264	264	264	264	264
2.5°	280	276	278	280	278	276	274	263	270	255	229
5°	460	449	451	450	441	406	312	274	275	217	177
7.5°	809	803	802	803	796	705	454	299	265	185	153
10°	1071	1059	1061	1063	1048	968	617	332	237	159	141
12.5°	1247	1234	1240	1238	1222	1144	767	357	206	131	100
15°	1396	1380	1377	1371	1357	1252	888	338	168	110	72
17.5°	1519	1501	1499	1492	1470	1367	1036	286	135	78	63
20°	1670	1650	1654	1646	1636	1521	990	258	116	59	64
22.5°	1871	1846	1839	1830	1798	1631	968	239	107	60	63
25°	1952	1922	1906	1883	1840	1637	929	197	76	54	62
27.5°	1982	1963	1944	1909	1865	1594	844	166	41	41	48
30°	2000	1970	1947	1912	1853	1562	747	142	28	33	43
32.5°	1975	1952	1920	1875	1810	1512	653	106	22	27	37
35°	1884	1859	1839	1800	1738	1453	561	54	18	24	23
37.5°	1772	1741	1726	1686	1633	1361	462	33	14	13	14
40°	1624	1587	1569	1543	1501	1245	334	22	12	4	5
42.5°	1401	1375	1360	1344	1315	1062	183	17	9	2	3
45°	1239	1220	1217	1209	1176	834	93	13	4	1	2
47.5°	1074	1052	1039	1028	982	552	67	11	2	1	1
50°	814	785	771	737	698	339	34	7	1	1	1
52.5°	462	450	427	387	348	163	15	4	1	1	1
55°	152	149	150	141	128	70	10	3	1	1	1
57.5°	47	43	43	41	41	20	4	1	1	1	1
60°	10	9	10	10	11	6	2	1	1	1	1
62.5°	4	4	4	4	6	6	1	1	1	1	1
65°	3	4	4	5	6	1	1	1	1	1	0
67.5°	1	1	1	1	1	1	1	1	1	1	0
70°	1	1	1	1	1	1	1	1	1	1	0
72.5°	1	1	1	1	1	1	1	1	1	1	0
75°	1	1	1	0	0	1	1	1	1	1	0
77.5°	0	0	0	0	0	0	1	1	1	1	0
80°	0	0	0	0	0	0	1	1	1	0	0
82.5°	0	0	0	0	0	0	1	1	1	0	0
85°	0	0	0	0	0	0	1	1	1	0	0
87.5°	0	0	0	0	0	0	1	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



TEST NUMBER: H21260

CATALOG NUMBER: PN3MR-E3AAC2

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



TEST NUMBER: H21260

CATALOG NUMBER: PN3MR-E3AAC2

CANDELA DISTRIBUTION (continued):

	157.5°	180°
0°	264	264
2.5°	219	199
5°	169	155
7.5°	151	141
10°	122	108
12.5°	81	72
15°	70	69
17.5°	70	72
20°	75	78
22.5°	72	73
25°	76	78
27.5°	66	77
30°	55	62
32.5°	42	53
35°	25	27
37.5°	14	13
40°	7	8
42.5°	4	3
45°	4	3
47.5°	2	2
50°	1	1
52.5°	1	1
55°	1	1
57.5°	1	1
60°	0	1
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



TEST NUMBER: H21260

CATALOG NUMBER: PN3MR-E3AAC2

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)