

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: 01279

Luminaire Tested: **FLMC-20**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: 01279
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FLMC-20
Description: FORMED STEEL HOUSING, WHITE ENAMEL REFLECTOR, CLEAR
PLASTIC LENS. PRORATED FROM LTL #01281.
Light Source: ONE F20T12/CW RATED 1260 LUMENS.
Ballast/Driver: -

Summary

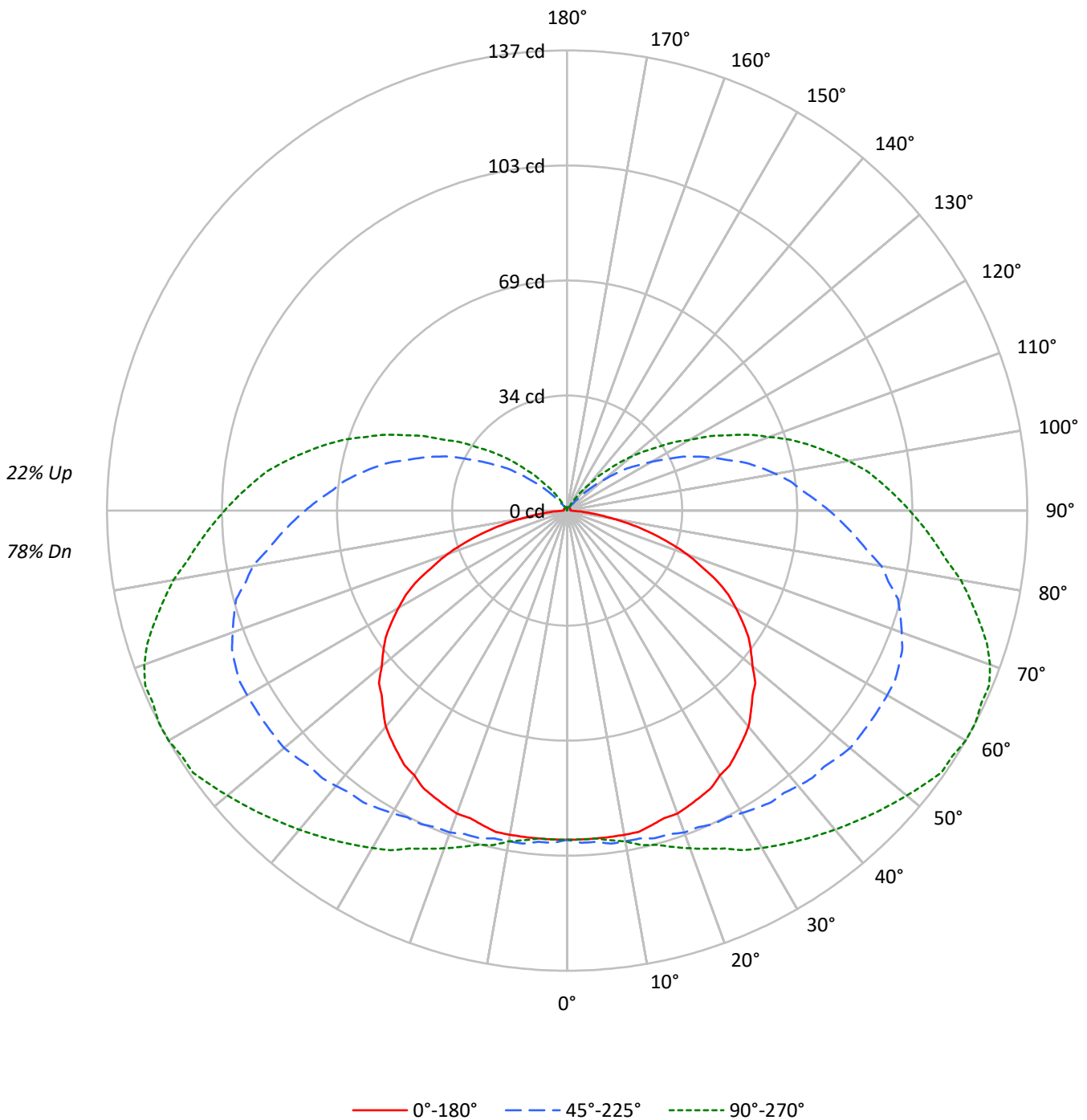
Lumens per Lamp: 1260 (1 lamp)
Luminaire Lumens: 778.8 lumens
Efficiency: 61.8%
Efficacy: 32.5 lumens/watt
Spacing Criteria (0/90/45): 1.39 / 1.88 / 1.87
Luminous Opening: Rectangular w/ Sides (W: 0.44' x L: 2.19' x H: 0.34')
CIE Type: Semi-Direct

Input Watts (W): 24
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



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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	70	70	70	70	67	67	67	67	61	61	61		56	56	56		51	51	51	48
1	61	57	53	50	58	54	51	47	49	46	43		44	42	40		39	38	36	34
2	54	48	42	38	51	45	40	36	41	37	33		37	33	30		33	30	28	26
3	49	41	35	30	46	39	33	29	35	30	26		31	27	24		28	25	22	20
4	44	35	29	24	41	34	28	23	30	25	22		27	23	20		24	21	18	16
5	40	31	25	20	38	30	24	20	27	22	18		24	20	17		21	18	15	13
6	37	28	22	17	35	26	21	17	24	19	15		21	17	14		19	16	13	11
7	34	25	19	15	32	24	18	14	21	17	13		19	15	12		17	14	11	10
8	31	22	17	13	30	21	16	13	19	15	12		18	14	11		16	12	10	8
9	29	20	15	11	28	20	14	11	18	13	10		16	12	10		15	11	9	7
10	27	19	14	10	26	18	13	10	16	12	9		15	11	8		13	10	8	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1095	1095	1095
5°	1084	1050	1029
10°	1082	1017	998
15°	1077	993	987
20°	1080	979	993
25°	1080	972	1006
30°	1077	973	1035
35°	1082	990	1062
40°	1084	1006	1097
45°	1067	1030	1141
50°	1056	1073	1194
55°	1052	1106	1259
60°	1021	1150	1309
65°	972	1197	1353
70°	870	1235	1401
75°	710	1276	1411
80°	479	1294	1422
85°	231	1297	1434



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	9.5	1.2	0.8	0°	98	98	98	98	98	
10°-20°	28.5	3.7	2.3	5°	98	99	99	99	98	9
20°-30°	47.6	6.1	3.8	15°	97	99	101	102	103	27
30°-40°	65.9	8.5	5.2	25°	94	97	103	109	111	43
40°-50°	82.1	10.5	6.5	35°	88	93	106	117	120	55
50°-60°	94.7	12.2	7.5	45°	78	88	108	124	128	60
60°-70°	101.0	13.0	8.0	55°	66	83	110	129	136	59
70°-80°	96.2	12.3	7.6	65°	49	77	109	130	136	48
80°-90°	81.3	10.4	6.5	75°	26	66	102	121	127	27
90°-100°	66.0	8.5	5.2	85°	5	49	86	104	110	6
100°-110°	49.2	6.3	3.9	90°	1	42	78	97	102	1
110°-120°	31.3	4.0	2.5	95°	1	35	70	90	94	1
120°-130°	16.6	2.1	1.3	105°	1	22	55	72	75	1
130°-140°	6.7	0.9	0.5	115°	1	10	38	51	53	1
140°-150°	1.6	0.2	0.1	125°	1	2	22	32	33	1
150°-160°	0.3	0.0	0.0	135°	1	1	8	16	17	1
160°-170°	0.2	0.0	0.0	145°	1	1	1	4	5	1
170°-180°	0.1	0.0	0.0	155°	1	1	1	0	0	0
0°-30°	85.6	11.0	6.8	165°	1	1	1	0	0	0
0°-40°	151.6	19.5	12.0	175°	1	1	1	0	0	0
0°-60°	328.3	42.2	26.1	180°	1	1	1	1	1	
0°-90°	606.8	77.9	48.2							
90°-120°	146.6	18.8	11.6							
90°-150°	171.5	22.0	13.6							
90°-180°	172.0	22.1	13.7							
0°-180°	778.8	100.0	61.8							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	98	98	98	98	98
2.5°	98	99	99	99	98
5°	98	99	99	99	98
7.5°	98	99	100	100	99
10°	98	99	100	100	100
12.5°	98	99	100	101	102
15°	97	99	101	102	103
17.5°	96	98	101	104	105
20°	96	98	102	106	107
22.5°	95	98	102	107	109
25°	94	97	103	109	111
27.5°	93	96	103	111	114
30°	91	96	104	113	116
32.5°	90	94	105	115	118
35°	88	93	106	117	120
37.5°	86	92	106	119	122
40°	84	91	107	121	124
42.5°	81	90	108	122	126
45°	78	88	108	124	128
47.5°	76	87	109	126	130
50°	72	86	110	127	132
52.5°	69	84	110	128	134
55°	66	83	110	129	136
57.5°	62	82	110	130	136
60°	58	80	110	130	137
62.5°	54	79	110	130	137
65°	49	77	109	130	136
67.5°	43	75	108	129	136
70°	38	72	106	127	134
72.5°	32	69	104	124	131
75°	26	66	102	121	127
77.5°	20	62	98	118	123
80°	14	58	95	113	119
82.5°	9	54	90	109	114
85°	5	49	86	104	110
87.5°	2	45	82	100	106
90°	1	42	78	97	102
92.5°	1	38	74	93	98
95°	1	35	70	90	94
97.5°	1	31	67	86	90
100°	1	28	63	81	85
102.5°	1	25	59	76	80
105°	1	22	55	72	75
107.5°	1	18	50	67	70
110°	1	16	46	62	64



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	1	12	42	56	59
115°	1	10	38	51	53
117.5°	1	7	33	46	48
120°	1	5	29	41	42
122.5°	1	4	25	36	38
125°	1	2	22	32	33
127.5°	1	2	18	28	29
130°	1	1	14	23	25
132.5°	1	1	11	19	21
135°	1	1	8	16	17
137.5°	1	1	5	12	14
140°	1	1	3	9	10
142.5°	1	1	2	6	8
145°	1	1	1	4	5
147.5°	1	1	1	2	3
150°	1	1	1	1	1
152.5°	1	1	1	1	0
155°	1	1	1	0	0
157.5°	1	1	1	0	0
160°	1	1	1	0	0
162.5°	1	1	1	0	0
165°	1	1	1	0	0
167.5°	1	1	1	0	0
170°	1	1	1	0	0
172.5°	1	1	1	0	0
175°	1	1	1	0	0
177.5°	1	1	1	0	0
180°	1	1	1	1	1

(END OF REPORT)