

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: P313630

Luminaire Tested: **24FCZ2-50HE-UNV-L83050-RDP-CP187-W2A-U-3000K**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P313630
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-50HE-UNV-L83050-RDP-CP187-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.187" POLYCARB SHEET
Light Source: (336) 3000K TUNABLE CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment:

<u>Sample No.</u>	<u>Condition</u>	<u>Description</u>
AS-5443-1	Good	WHITE TWIN R-EVOLVE FLOOD
AS-5443-2	Good	REFLECTOR
AS-5443-3	Good	DRIVER
AS-5443-4	Good	UPPER MODULE
AS-5443-5	Good	LENS
AS-5443-6	Good	DRIVER 2
AS-5443-7	Good	TRIM RING

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2733.0 lumens
Efficiency: N/A
Efficacy: 71.4 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

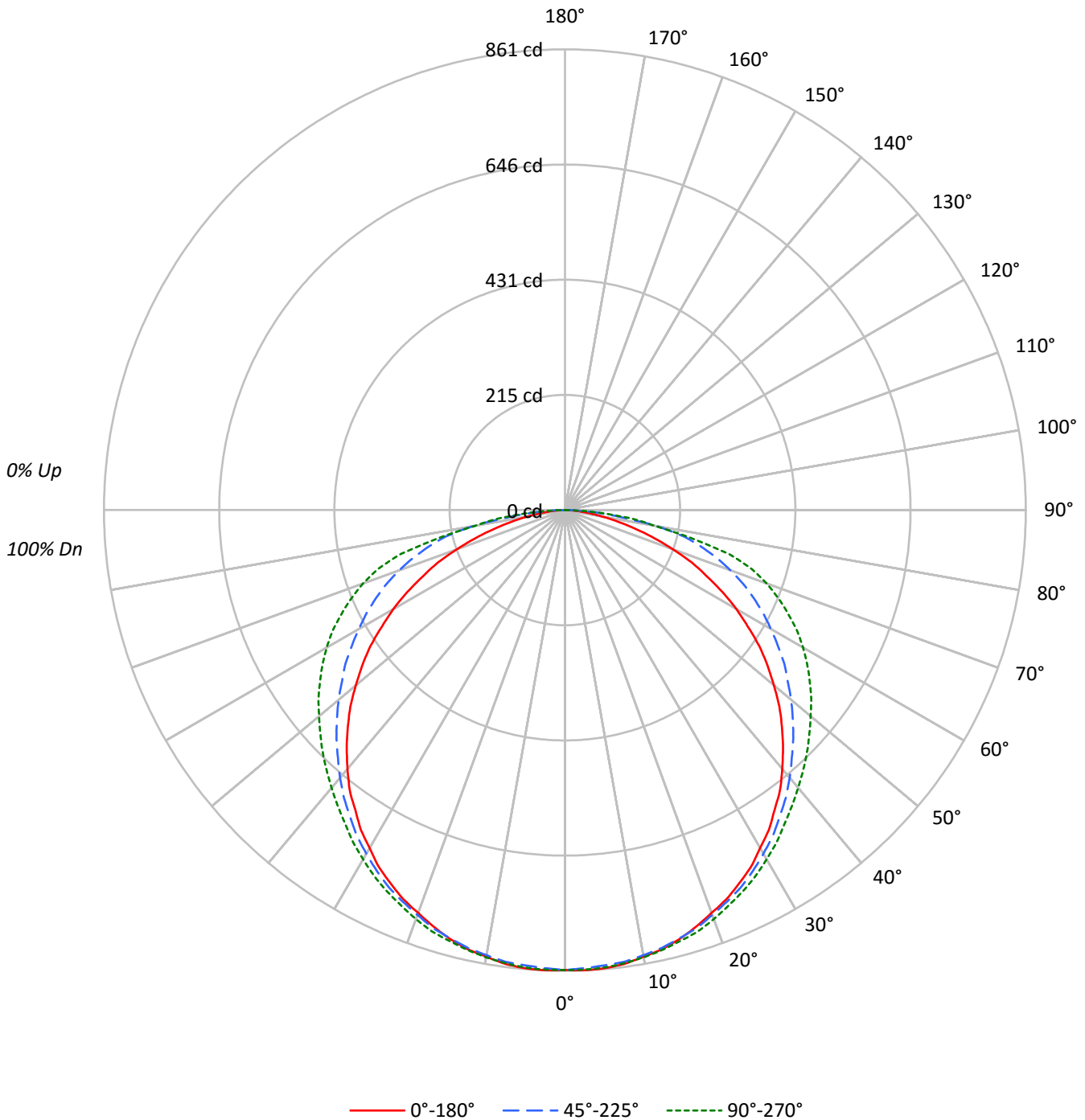
Input Watts (W): 38.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	68	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1156	1156	1156
5°	1161	1153	1159
10°	1158	1154	1159
15°	1156	1154	1161
20°	1147	1153	1165
25°	1143	1155	1167
30°	1133	1152	1171
35°	1122	1149	1176
40°	1110	1148	1190
45°	1091	1148	1217
50°	1067	1155	1254
55°	1040	1173	1310
60°	996	1196	1383
65°	932	1239	1467
70°	848	1296	1579
75°	719	1367	1649
80°	567	1376	1334
85°	418	1047	1172



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.5	3.0
10°-20°	234.6	8.6
20°-30°	358.8	13.1
30°-40°	438.6	16.0
40°-50°	467.5	17.1
50°-60°	447.0	16.4
60°-70°	378.6	13.9
70°-80°	254.5	9.3
80°-90°	71.8	2.6
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	675.0	24.7
0°-40°	1113.6	40.7
0°-60°	2028.1	74.2
0°-90°	2733.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2733.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	860	860	860	860	860	
5°	860	858	854	858	858	82
15°	830	830	828	835	834	234
25°	770	773	778	785	786	355
35°	683	689	700	713	716	428
45°	573	583	603	629	640	442
55°	443	460	500	540	558	395
65°	293	323	389	441	461	291
75°	138	188	263	308	317	148
85°	27	56	68	73	76	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	859.5	859.5	859.5	859.5	859.5
2.5°	860.8	860.8	856.7	859.5	859.5
5°	859.5	858.1	854.0	858.1	858.1
7.5°	855.4	854.0	851.3	855.4	854.0
10°	847.3	847.3	844.5	848.6	848.6
12.5°	840.5	839.1	837.8	843.2	841.8
15°	829.6	829.6	828.3	835.0	833.7
17.5°	816.1	817.4	818.8	824.2	825.6
20°	801.2	803.9	805.2	813.4	813.4
22.5°	787.6	789.0	791.7	799.8	799.8
25°	770.0	772.7	778.1	784.9	786.2
27.5°	752.4	753.7	760.5	770.0	771.3
30°	729.3	733.4	741.5	752.4	753.7
32.5°	709.0	713.0	722.5	733.4	736.1
35°	683.2	688.6	699.5	713.0	715.8
37.5°	660.2	664.2	677.8	692.7	696.8
40°	631.7	639.8	653.4	671.0	677.8
42.5°	603.2	611.4	627.6	650.7	658.8
45°	573.4	582.9	603.2	629.0	639.8
47.5°	543.6	554.4	577.5	607.3	619.5
50°	509.7	523.3	551.7	585.6	599.2
52.5°	477.2	493.4	524.6	562.6	580.2
55°	443.3	459.5	500.2	539.5	558.5
57.5°	405.3	427.0	471.7	516.5	536.8
60°	370.1	390.4	444.6	493.4	513.8
62.5°	332.1	359.2	417.5	469.0	489.4
65°	292.8	322.6	389.1	440.6	460.9
67.5°	257.6	290.1	360.6	412.1	432.4
70°	215.5	256.2	329.4	380.9	401.3
72.5°	176.2	221.0	296.9	347.0	366.0
75°	138.3	188.4	263.0	307.7	317.2
77.5°	103.0	155.9	227.7	246.7	239.9
80°	73.2	124.7	177.6	168.1	172.2
82.5°	47.4	94.9	109.8	124.7	128.8
85°	27.1	55.6	67.8	73.2	75.9
87.5°	12.2	20.3	27.1	27.1	25.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)