

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: P310517

Luminaire Tested: **24FCZ2-30HE-UNV-L82765-CP187-W2A-U-2700K**

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: P310517
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-15)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-30HE-UNV-L82765-CP187-W2A-U-2700K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.187" POLYCARB SHEET
Light Source: (336) 2700K 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: 2410.0 lumens
Efficiency: N/A
Efficacy: 114.2 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

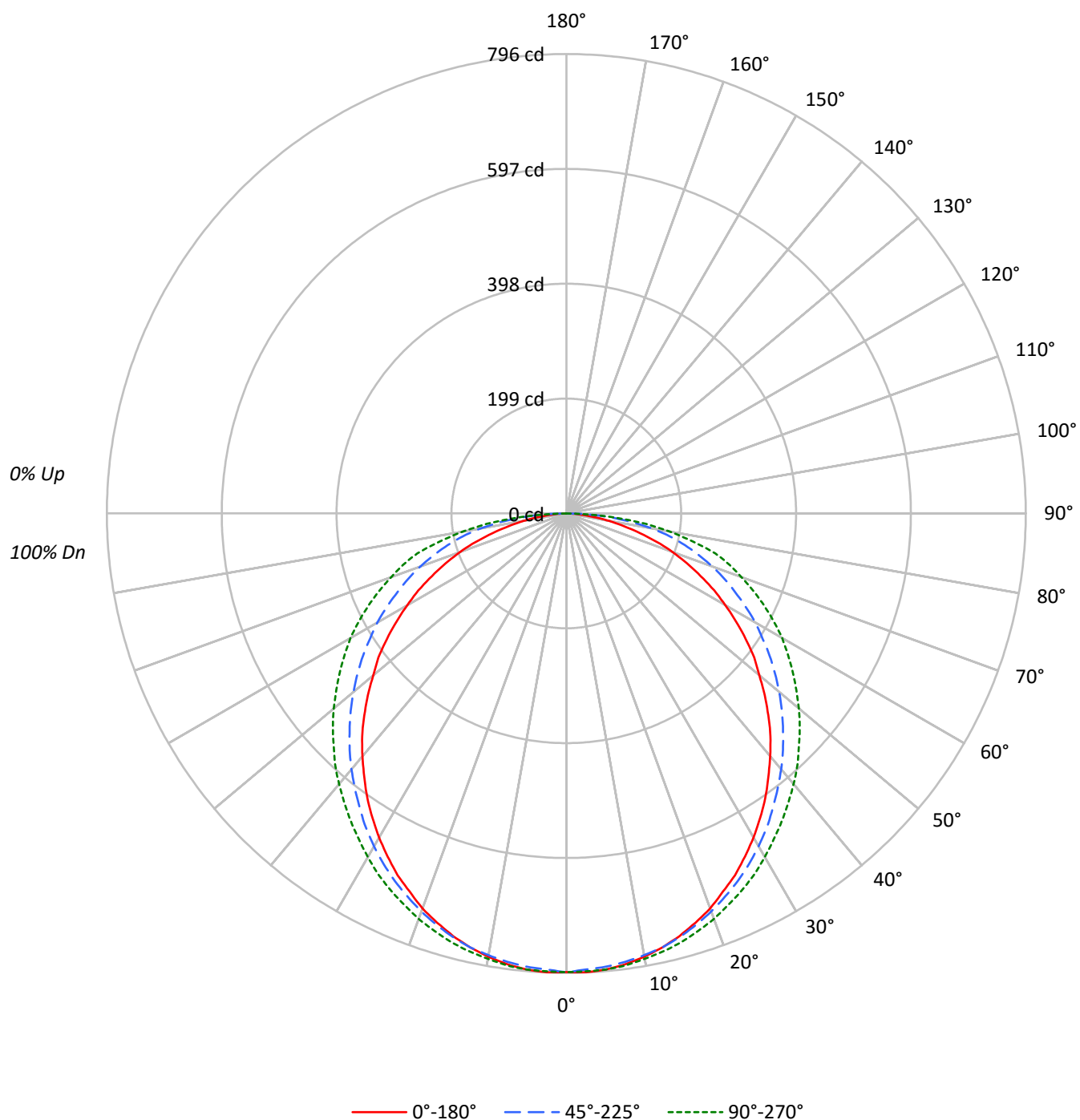
Input Watts (W): 21.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	108	103	98	94	105	100	96	92	96	92	89		92	89	87		82
2	98	89	81	75	95	87	80	74	83	78	73		80	75	71		67
3	89	77	69	62	86	76	68	61	73	66	60		70	64	59		56
4	81	68	59	52	79	67	58	52	64	57	51		62	56	50		47
5	74	61	52	45	72	60	51	44	58	50	44		56	49	43		41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		36
7	64	50	41	34	62	49	40	34	47	39	34		46	39	34		31
8	59	45	37	31	57	45	36	30	43	36	30		42	35	30		28
9	55	41	33	27	54	41	33	27	40	32	27		39	32	27		25
10	52	38	30	25	50	38	30	25	37	30	25		36	29	25		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1069	1069	1069
5°	1071	1065	1071
10°	1065	1062	1071
15°	1056	1058	1071
20°	1043	1051	1070
25°	1027	1043	1069
30°	1008	1035	1068
35°	988	1024	1069
40°	965	1017	1076
45°	942	1010	1085
50°	914	1008	1101
55°	891	1009	1124
60°	856	1018	1162
65°	817	1028	1204
70°	774	1060	1271
75°	690	1106	1389
80°	589	1171	1419
85°	420	1161	1359



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.2	3.1
10°-20°	215.1	8.9
20°-30°	324.8	13.5
30°-40°	391.5	16.2
40°-50°	411.0	17.1
50°-60°	384.6	16.0
60°-70°	317.6	13.2
70°-80°	216.4	9.0
80°-90°	73.8	3.1
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°	615.1	25.5
0°-40°	1006.7	41.8
0°-60°	1802.2	74.8
0°-90°	2410.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2410.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	795	795	795	795	795	
5°	793	792	788	793	793	75
15°	758	759	760	768	769	214
25°	692	695	703	716	720	318
35°	601	608	624	644	651	376
45°	495	505	531	560	570	382
55°	380	395	430	465	479	339
65°	257	278	323	364	378	255
75°	133	163	213	253	267	142
85°	27	54	75	85	88	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	794.8	794.8	794.8	794.8	794.8
2.5°	795.6	794.8	790.8	794.8	794.0
5°	793.2	792.4	788.4	793.2	793.2
7.5°	787.6	787.6	783.6	789.2	790.0
10°	779.6	779.6	777.2	783.6	783.6
12.5°	770.0	770.0	770.0	776.4	777.2
15°	758.0	758.8	759.6	767.6	769.2
17.5°	743.6	745.2	747.6	757.2	758.8
20°	728.4	730.0	734.0	745.2	747.6
22.5°	709.2	713.2	718.8	731.6	734.0
25°	691.6	694.8	702.8	716.4	720.4
27.5°	670.1	674.9	685.3	699.6	705.2
30°	648.5	653.3	666.1	682.9	687.7
32.5°	625.3	632.5	646.1	663.7	669.3
35°	601.3	607.7	623.7	644.5	650.9
37.5°	574.9	583.7	601.3	623.7	631.7
40°	549.3	558.9	578.9	602.9	612.5
42.5°	523.7	533.3	555.7	582.9	592.5
45°	494.9	505.3	530.9	559.7	570.1
47.5°	466.2	479.0	506.9	537.3	548.5
50°	436.6	451.0	481.4	513.3	526.1
52.5°	410.2	423.8	455.8	490.2	502.1
55°	379.8	395.0	430.2	465.4	479.0
57.5°	348.6	365.4	403.0	441.4	455.0
60°	318.2	336.6	378.2	416.6	431.8
62.5°	288.7	307.0	350.2	390.2	405.4
65°	256.7	278.3	323.0	363.8	378.2
67.5°	226.3	249.5	296.6	336.6	351.0
70°	196.7	219.1	269.5	308.6	323.0
72.5°	164.7	190.3	240.7	281.5	296.6
75°	132.7	163.1	212.7	252.7	267.1
77.5°	103.1	134.3	183.9	216.7	223.9
80°	76.0	107.9	151.1	174.3	183.1
82.5°	48.8	80.8	115.1	131.9	139.1
85°	27.2	53.6	75.2	84.8	88.0
87.5°	11.2	23.2	30.4	34.4	34.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)