

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: P313837

Luminaire Tested: **24FCZ2-30-UNV-L83050-CP250-W2A-U-4000K**

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: P313837
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: 24FCZ2-30-UNV-L83050-CP250-W2A-U-4000K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.250" POLYCARB SHEET
Light Source: (168) 4000K 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: 2702.0 lumens
Efficiency: N/A
Efficacy: 113.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

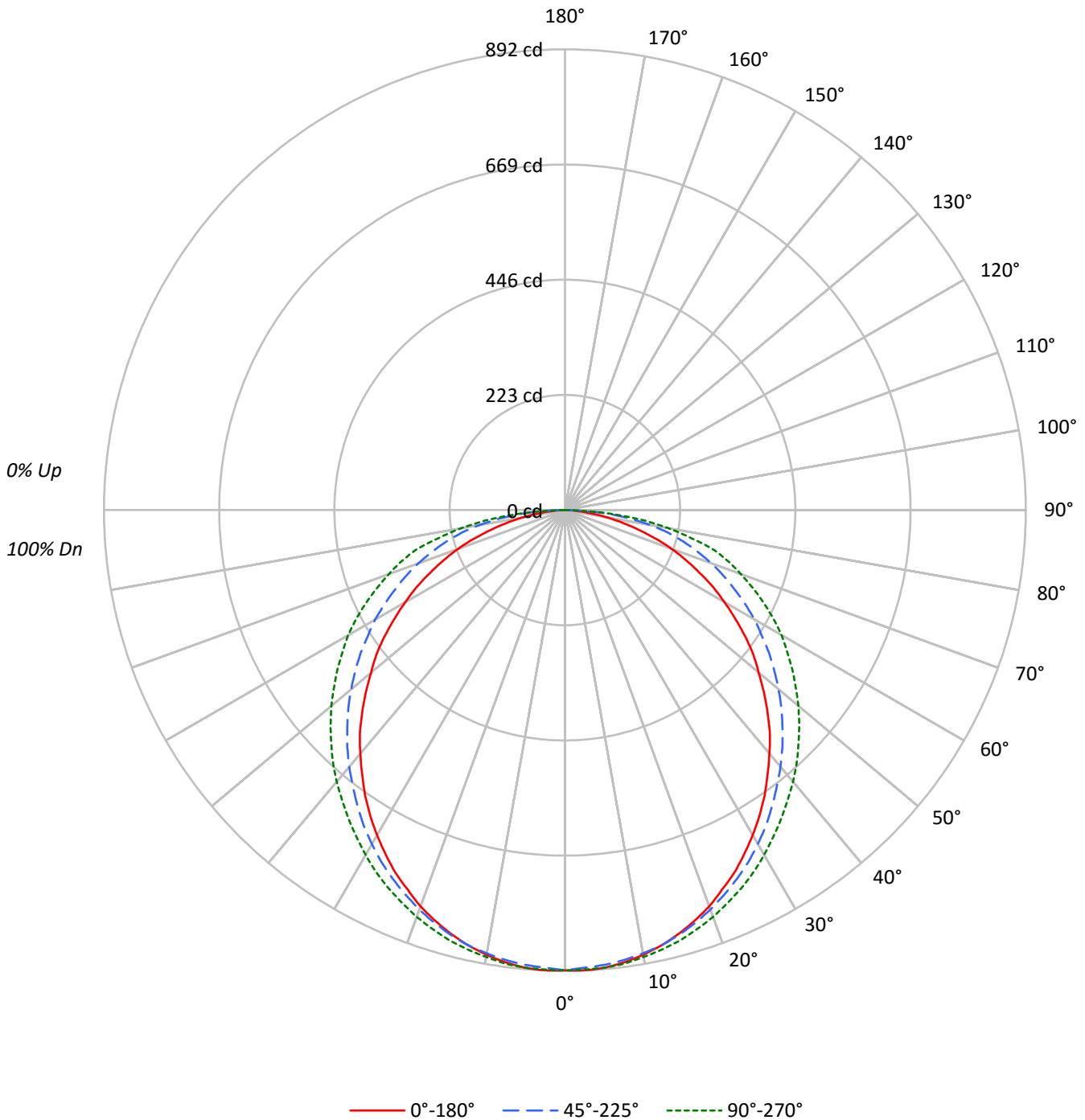
Input Watts (W): 23.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	92	89	92	89	87	88	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	64	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	37	31	57	45	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1199	1199	1199
5°	1201	1194	1201
10°	1194	1191	1200
15°	1184	1186	1201
20°	1169	1178	1200
25°	1151	1170	1199
30°	1129	1160	1198
35°	1107	1149	1199
40°	1082	1140	1206
45°	1056	1133	1216
50°	1025	1130	1235
55°	999	1131	1260
60°	960	1141	1303
65°	916	1153	1350
70°	867	1188	1425
75°	774	1240	1556
80°	660	1313	1591
85°	471	1301	1522



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.3	3.1
10°-20°	241.1	8.9
20°-30°	364.2	13.5
30°-40°	439.0	16.2
40°-50°	460.8	17.1
50°-60°	431.1	16.0
60°-70°	356.0	13.2
70°-80°	242.6	9.0
80°-90°	82.7	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°	689.7	25.5
0°-40°	1128.6	41.8
0°-60°	2020.6	74.8
0°-90°	2702.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2702.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	891	891	891	891	891	
5°	889	888	884	889	889	84
15°	850	851	852	861	862	240
25°	776	779	788	803	808	357
35°	674	681	699	723	730	421
45°	555	567	595	628	639	428
55°	426	443	482	522	537	380
65°	288	312	362	408	424	285
75°	149	183	238	283	299	159
85°	30	60	84	95	99	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	891.1	891.1	891.1	891.1	891.1
2.5°	892.0	891.1	886.6	891.1	890.2
5°	889.3	888.4	883.9	889.3	889.3
7.5°	883.0	883.0	878.5	884.8	885.7
10°	874.1	874.1	871.4	878.5	878.5
12.5°	863.3	863.3	863.3	870.5	871.4
15°	849.9	850.8	851.7	860.6	862.4
17.5°	833.7	835.5	838.2	849.0	850.8
20°	816.7	818.5	823.0	835.5	838.2
22.5°	795.2	799.7	805.9	820.3	823.0
25°	775.5	779.0	788.0	803.2	807.7
27.5°	751.2	756.6	768.3	784.4	790.7
30°	727.0	732.4	746.8	765.6	771.0
32.5°	701.0	709.1	724.4	744.1	750.3
35°	674.1	681.3	699.3	722.6	729.7
37.5°	644.6	654.4	674.1	699.3	708.2
40°	615.9	626.6	649.0	675.9	686.7
42.5°	587.2	597.9	623.1	653.5	664.3
45°	554.9	566.6	595.3	627.5	639.2
47.5°	522.6	537.0	568.4	602.4	615.0
50°	489.5	505.6	539.7	575.5	589.9
52.5°	459.9	475.1	511.0	549.5	563.0
55°	425.8	442.9	482.3	521.7	537.0
57.5°	390.9	409.7	451.8	494.9	510.1
60°	356.8	377.4	424.0	467.1	484.1
62.5°	323.6	344.2	392.7	437.5	454.5
65°	287.8	312.0	362.2	407.9	424.0
67.5°	253.7	279.7	332.6	377.4	393.6
70°	220.5	245.6	302.1	346.0	362.2
72.5°	184.7	213.4	269.8	315.6	332.6
75°	148.8	182.9	238.5	283.3	299.4
77.5°	115.6	150.6	206.2	242.9	251.0
80°	85.2	121.0	169.4	195.4	205.3
82.5°	54.7	90.5	129.1	147.9	156.0
85°	30.5	60.1	84.3	95.0	98.6
87.5°	12.6	26.0	34.1	38.5	38.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)