

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: P308006

Luminaire Tested: **14FCZ2-39-UNV-L82765-S-CP250-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: P308006
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-39-UNV-L82765-S-CP250-W2A-U-2700K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.250" POLYCARB SHEET
Light Source: (168) 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: 3199.0 lumens
Efficiency: N/A
Efficacy: 96.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

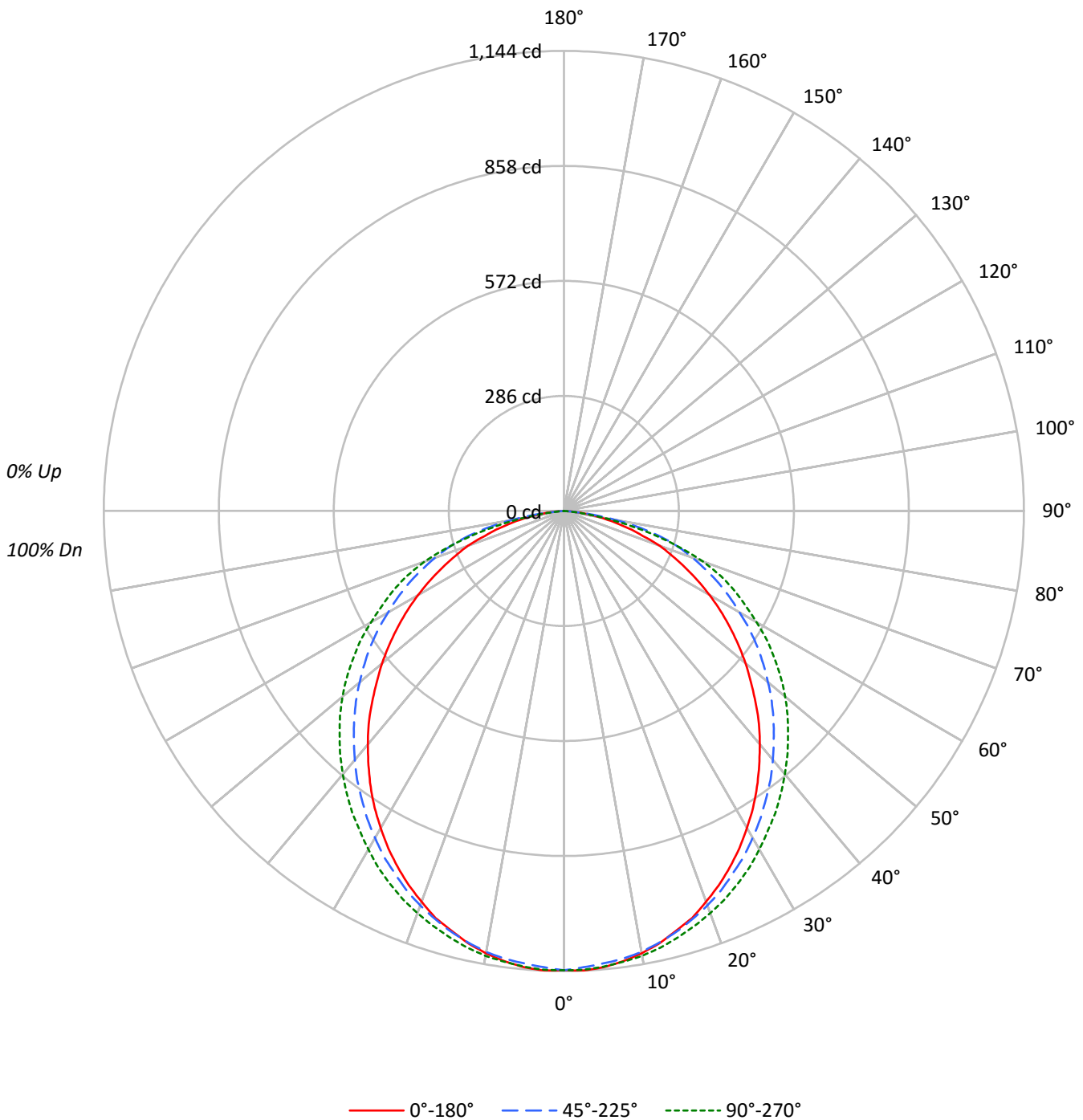
Input Watts (W): 33.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3073	3073	3073
5°	3076	3051	3072
10°	3051	3042	3069
15°	3009	3018	3058
20°	2961	2989	3048
25°	2901	2953	3037
30°	2829	2918	3021
35°	2751	2876	3012
40°	2663	2842	3003
45°	2565	2807	3000
50°	2470	2776	3008
55°	2366	2753	2999
60°	2253	2715	2979
65°	2121	2707	2979
70°	1997	2683	2895
75°	1731	2622	2473
80°	1401	2114	1647
85°	929	735	491



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.8	3.4
10°-20°	306.9	9.6
20°-30°	460.3	14.4
30°-40°	549.1	17.2
40°-50°	567.7	17.7
50°-60°	518.3	16.2
60°-70°	407.8	12.7
70°-80°	237.4	7.4
80°-90°	43.7	1.4
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°	875.0	27.4
0°-40°	1424.1	44.5
0°-60°	2510.0	78.5
0°-90°	3199.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3199.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1142	1142	1142	1142	1142	
5°	1139	1136	1129	1139	1137	108
15°	1080	1082	1083	1098	1098	305
25°	977	982	994	1018	1023	450
35°	838	849	876	909	917	523
45°	674	696	738	779	788	521
55°	504	531	587	630	639	451
65°	333	368	425	458	468	331
75°	166	206	252	247	238	177
85°	30	43	24	19	16	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1142.0	1142.0	1142.0	1142.0	1142.0
2.5°	1143.6	1140.4	1135.6	1143.6	1142.0
5°	1138.8	1135.6	1129.3	1138.8	1137.2
7.5°	1129.3	1126.1	1123.0	1132.5	1130.9
10°	1116.6	1115.0	1113.4	1124.5	1123.0
12.5°	1100.8	1100.8	1099.2	1111.9	1111.9
15°	1080.1	1081.7	1083.3	1097.6	1097.6
17.5°	1061.1	1059.5	1064.3	1080.1	1081.7
20°	1034.1	1037.3	1043.7	1062.7	1064.3
22.5°	1007.2	1010.3	1021.4	1040.5	1045.2
25°	977.0	981.8	994.5	1018.3	1023.0
27.5°	945.3	951.7	969.1	994.5	999.2
30°	910.4	919.9	939.0	967.5	972.3
32.5°	875.5	885.0	908.8	937.4	943.7
35°	837.5	848.6	875.5	908.8	916.8
37.5°	797.8	812.1	843.8	877.1	886.6
40°	758.2	774.0	808.9	843.8	854.9
42.5°	718.5	734.4	772.4	812.1	823.2
45°	674.1	696.3	737.5	778.8	788.3
47.5°	631.3	655.1	701.1	742.3	755.0
50°	590.0	613.8	663.0	705.8	718.5
52.5°	547.2	572.6	624.9	669.3	680.4
55°	504.4	531.3	586.9	629.7	639.2
57.5°	461.6	490.1	547.2	588.4	599.5
60°	418.7	448.9	504.4	545.6	553.5
62.5°	375.9	407.6	464.7	501.2	509.1
65°	333.1	368.0	425.1	458.4	467.9
67.5°	291.8	326.7	382.2	414.0	421.9
70°	253.8	285.5	341.0	364.8	368.0
72.5°	206.2	245.8	299.8	312.5	304.5
75°	166.5	206.2	252.2	247.4	237.9
77.5°	126.9	166.5	196.7	180.8	168.1
80°	90.4	130.1	136.4	112.6	106.3
82.5°	58.7	90.4	76.1	58.7	47.6
85°	30.1	42.8	23.8	19.0	15.9
87.5°	9.5	6.3	3.2	3.2	1.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)