

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: P308009

Luminaire Tested: **14FCZ2-39-UNV-L82765-S-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: P308009
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-4000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH 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: 3480.0 lumens
Efficiency: N/A
Efficacy: 103.3 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

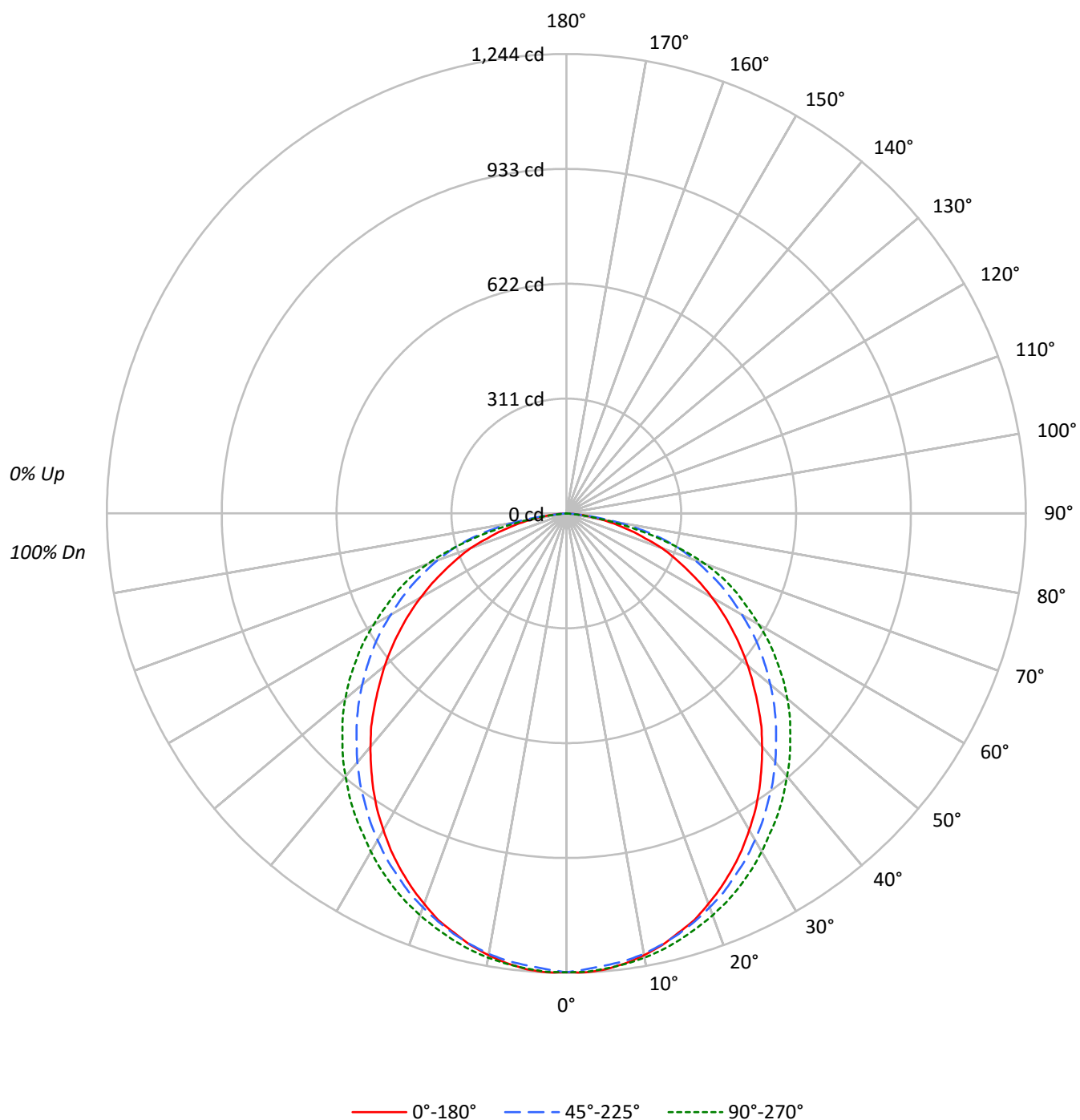
Input Watts (W): 33.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3343	3343	3343
5°	3347	3318	3342
10°	3319	3310	3338
15°	3273	3283	3326
20°	3222	3251	3316
25°	3156	3212	3304
30°	3077	3174	3287
35°	2993	3129	3276
40°	2897	3091	3267
45°	2791	3053	3263
50°	2687	3019	3272
55°	2574	2995	3262
60°	2451	2953	3241
65°	2307	2944	3241
70°	2172	2919	3150
75°	1884	2852	2691
80°	1523	2300	1791
85°	1013	800	534



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	117.3	3.4
10°-20°	333.8	9.6
20°-30°	500.7	14.4
30°-40°	597.3	17.2
40°-50°	617.5	17.7
50°-60°	563.8	16.2
60°-70°	443.7	12.7
70°-80°	258.3	7.4
80°-90°	47.6	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°	951.8	27.4
0°-40°	1549.2	44.5
0°-60°	2730.5	78.5
0°-90°	3480.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3480.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1242	1242	1242	1242	1242	
5°	1239	1235	1228	1239	1237	117
15°	1175	1177	1178	1194	1194	332
25°	1063	1068	1082	1108	1113	489
35°	911	923	952	989	997	569
45°	733	758	802	847	858	566
55°	549	578	638	685	695	491
65°	362	400	462	499	509	360
75°	181	224	274	269	259	193
85°	33	47	26	21	17	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1242.3	1242.3	1242.3	1242.3	1242.3
2.5°	1244.0	1240.6	1235.4	1244.0	1242.3
5°	1238.9	1235.4	1228.5	1238.9	1237.1
7.5°	1228.5	1225.0	1221.6	1231.9	1230.2
10°	1214.7	1213.0	1211.2	1223.3	1221.6
12.5°	1197.4	1197.4	1195.7	1209.5	1209.5
15°	1175.0	1176.7	1178.5	1194.0	1194.0
17.5°	1154.3	1152.6	1157.8	1175.0	1176.7
20°	1125.0	1128.4	1135.3	1156.0	1157.8
22.5°	1095.6	1099.1	1111.2	1131.9	1137.1
25°	1062.9	1068.0	1081.8	1107.7	1112.9
27.5°	1028.4	1035.3	1054.2	1081.8	1087.0
30°	990.4	1000.7	1021.4	1052.5	1057.7
32.5°	952.4	962.8	988.7	1019.7	1026.6
35°	911.0	923.1	952.4	988.7	997.3
37.5°	867.9	883.4	917.9	954.2	964.5
40°	824.8	842.0	880.0	917.9	930.0
42.5°	781.6	798.9	840.3	883.4	895.5
45°	733.3	757.5	802.3	847.2	857.5
47.5°	686.7	712.6	762.6	807.5	821.3
50°	641.9	667.7	721.2	767.8	781.6
52.5°	595.3	622.9	679.8	728.1	740.2
55°	548.7	578.0	638.4	685.0	695.3
57.5°	502.1	533.2	595.3	640.1	652.2
60°	455.5	488.3	548.7	593.5	602.2
62.5°	408.9	443.4	505.5	545.2	553.9
65°	362.3	400.3	462.4	498.6	509.0
67.5°	317.5	355.4	415.8	450.3	459.0
70°	276.1	310.6	371.0	396.8	400.3
72.5°	224.3	267.4	326.1	339.9	331.3
75°	181.2	224.3	274.3	269.2	258.8
77.5°	138.0	181.2	214.0	196.7	182.9
80°	98.3	141.5	148.4	122.5	115.6
82.5°	63.8	98.3	82.8	63.8	51.8
85°	32.8	46.6	25.9	20.7	17.3
87.5°	10.4	6.9	3.5	3.5	1.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)