

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: P308013

Luminaire Tested: **14FCZ2-39-UNV-L82765-S-CP250-W2A-U-5700K**

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: P308013
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-5700K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.250" POLYCARB SHEET
Light Source: (168) 5700K 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: 3635.0 lumens
Efficiency: N/A
Efficacy: 106.3 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

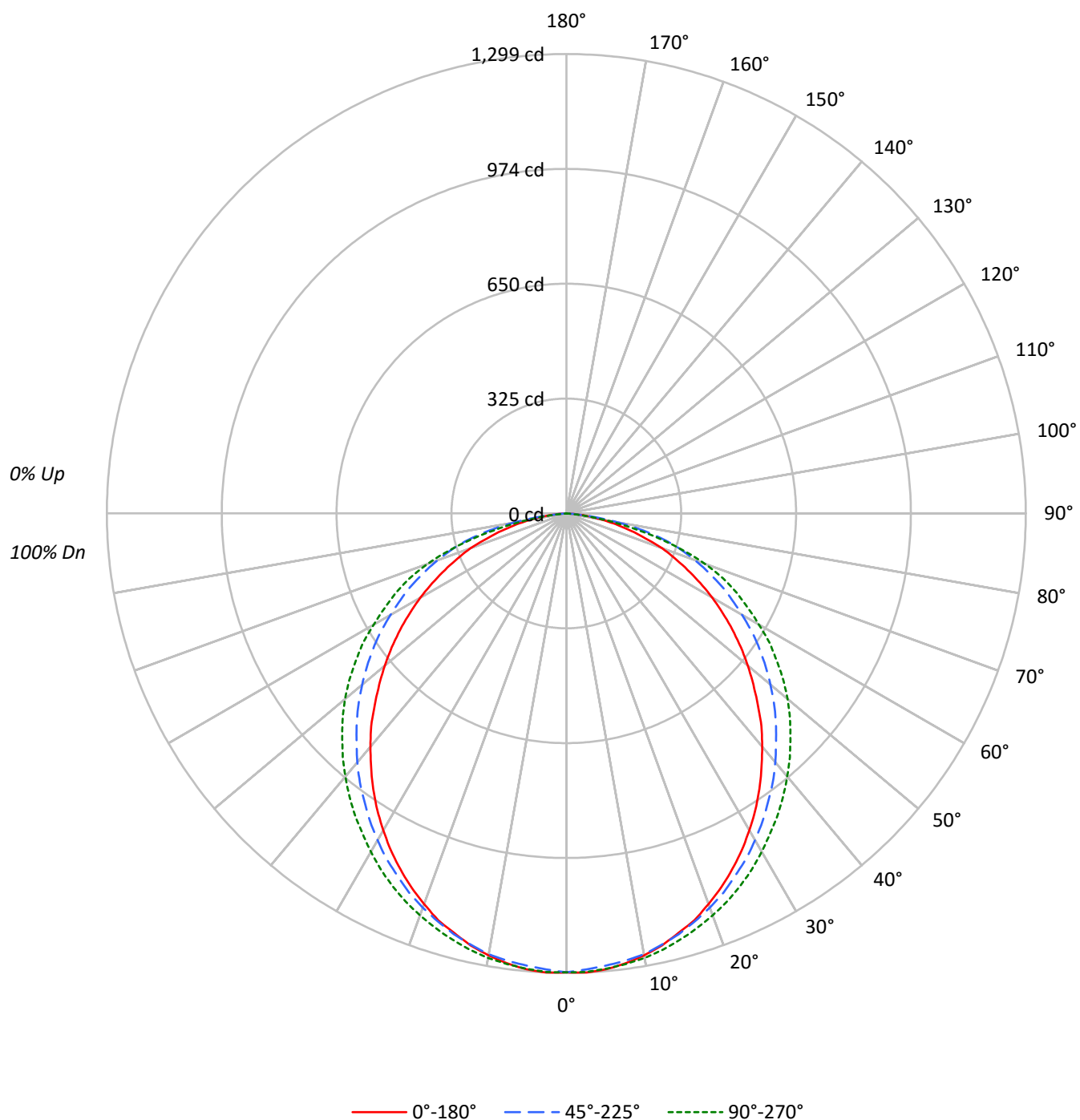
Input Watts (W): 34.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3492	3492	3492
5°	3495	3466	3491
10°	3467	3457	3487
15°	3419	3429	3475
20°	3365	3396	3463
25°	3296	3355	3452
30°	3214	3315	3433
35°	3126	3268	3422
40°	3026	3229	3412
45°	2915	3189	3409
50°	2807	3154	3418
55°	2689	3128	3407
60°	2561	3084	3385
65°	2410	3075	3386
70°	2269	3049	3290
75°	1967	2980	2810
80°	1592	2402	1872
85°	1056	834	556



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.5	3.4
10°-20°	348.7	9.6
20°-30°	523.0	14.4
30°-40°	623.9	17.2
40°-50°	645.0	17.7
50°-60°	588.9	16.2
60°-70°	463.4	12.7
70°-80°	269.8	7.4
80°-90°	49.7	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°	994.2	27.4
0°-40°	1618.2	44.5
0°-60°	2852.1	78.5
0°-90°	3635.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3635.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1298	1298	1298	1298	1298	
5°	1294	1290	1283	1294	1292	123
15°	1227	1229	1231	1247	1247	346
25°	1110	1116	1130	1157	1162	511
35°	952	964	995	1033	1042	595
45°	766	791	838	885	896	591
55°	573	604	667	716	726	513
65°	378	418	483	521	532	376
75°	189	234	287	281	270	201
85°	34	49	27	22	18	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1297.6	1297.6	1297.6	1297.6	1297.6
2.5°	1299.4	1295.8	1290.4	1299.4	1297.6
5°	1294.0	1290.4	1283.2	1294.0	1292.2
7.5°	1283.2	1279.6	1276.0	1286.8	1285.0
10°	1268.8	1267.0	1265.2	1277.8	1276.0
12.5°	1250.8	1250.8	1249.0	1263.4	1263.4
15°	1227.3	1229.1	1231.0	1247.2	1247.2
17.5°	1205.7	1203.9	1209.3	1227.3	1229.1
20°	1175.1	1178.7	1185.9	1207.5	1209.3
22.5°	1144.4	1148.0	1160.7	1182.3	1187.7
25°	1110.2	1115.6	1130.0	1157.1	1162.5
27.5°	1074.2	1081.4	1101.2	1130.0	1135.4
30°	1034.5	1045.3	1066.9	1099.4	1104.8
32.5°	994.9	1005.7	1032.7	1065.1	1072.4
35°	951.6	964.2	994.9	1032.7	1041.7
37.5°	906.5	922.8	958.8	996.7	1007.5
40°	861.5	879.5	919.2	958.8	971.4
42.5°	816.4	834.5	877.7	922.8	935.4
45°	766.0	791.2	838.1	884.9	895.7
47.5°	717.3	744.3	796.6	843.5	857.9
50°	670.4	697.5	753.3	802.0	816.4
52.5°	621.8	650.6	710.1	760.6	773.2
55°	573.1	603.8	666.8	715.5	726.3
57.5°	524.5	556.9	621.8	668.6	681.3
60°	475.8	510.0	573.1	620.0	629.0
62.5°	427.1	463.2	528.1	569.5	578.5
65°	378.5	418.1	483.0	520.9	531.7
67.5°	331.6	371.3	434.3	470.4	479.4
70°	288.4	324.4	387.5	414.5	418.1
72.5°	234.3	279.4	340.6	355.0	346.0
75°	189.2	234.3	286.6	281.2	270.3
77.5°	144.2	189.2	223.5	205.5	191.0
80°	102.7	147.8	155.0	128.0	120.8
82.5°	66.7	102.7	86.5	66.7	54.1
85°	34.2	48.7	27.0	21.6	18.0
87.5°	10.8	7.2	3.6	3.6	1.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)