

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: P312103

Luminaire Tested: **14FCZ2-39-UNV-L83050-RDP-CP125-W2A-U-4500K**

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: P312103
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-43)
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-L83050-RDP-CP125-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.125" POLYCARB SHEET
Light Source: (168) 4500K 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: 2471.0 lumens
Efficiency: N/A
Efficacy: 70.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.28 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

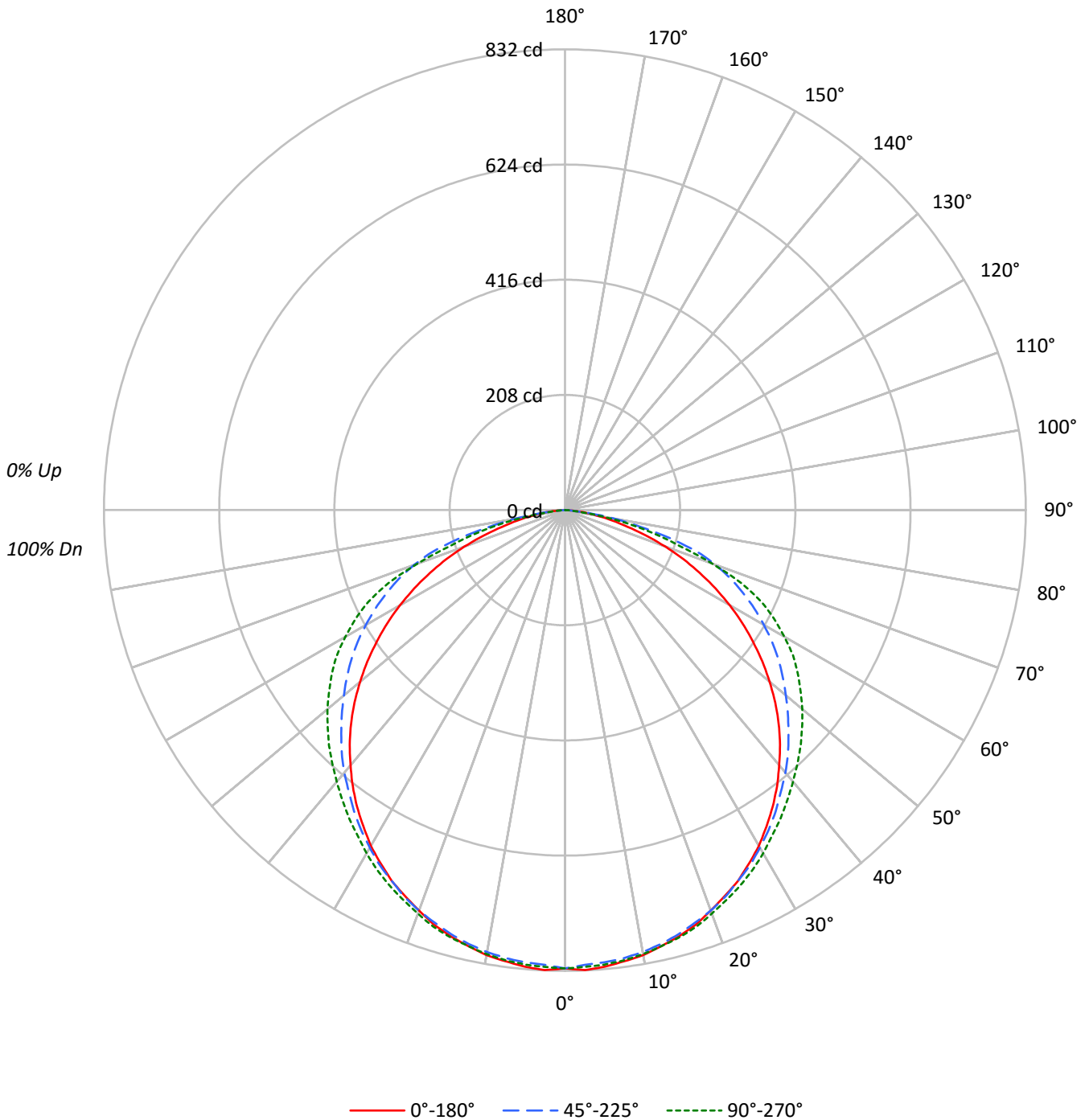
Input Watts (W): 34.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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	93	91	88	90	88	86	84
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2227	2227	2227
5°	2236	2215	2225
10°	2230	2214	2225
15°	2220	2209	2225
20°	2204	2204	2221
25°	2194	2194	2222
30°	2176	2188	2224
35°	2148	2180	2231
40°	2114	2175	2250
45°	2077	2173	2291
50°	2019	2181	2342
55°	1946	2208	2408
60°	1848	2232	2461
65°	1708	2260	2493
70°	1518	2277	2231
75°	1224	2046	1785
80°	956	1435	1165
85°	655	417	296



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.3	3.2
10°-20°	224.7	9.1
20°-30°	342.2	13.8
30°-40°	416.8	16.9
40°-50°	442.2	17.9
50°-60°	417.4	16.9
60°-70°	337.0	13.6
70°-80°	182.8	7.4
80°-90°	29.6	1.2
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°	645.3	26.1
0°-40°	1062.1	43.0
0°-60°	1921.7	77.8
0°-90°	2471.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2471.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	828	828	828	828	828	
5°	828	826	820	826	824	79
15°	797	795	793	799	799	225
25°	739	737	739	747	748	340
35°	654	658	664	677	679	409
45°	546	554	571	592	602	420
55°	415	432	471	502	513	370
65°	268	301	355	384	392	266
75°	118	172	197	178	172	129
85°	21	23	14	12	10	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	827.6	827.6	827.6	827.6	827.6
2.5°	831.5	827.6	821.8	827.6	825.7
5°	827.6	825.7	819.9	825.7	823.7
7.5°	821.8	821.8	816.0	819.9	819.9
10°	816.0	814.1	810.2	816.0	814.1
12.5°	806.4	804.5	802.5	808.3	806.4
15°	796.7	794.8	792.9	798.7	798.7
17.5°	785.2	783.2	781.3	789.0	789.0
20°	769.7	769.7	769.7	777.4	775.5
22.5°	754.3	754.3	756.2	763.9	762.0
25°	738.9	736.9	738.9	746.6	748.5
27.5°	719.6	721.5	723.4	731.1	733.1
30°	700.3	702.2	704.1	713.8	715.7
32.5°	677.1	681.0	684.8	696.4	696.4
35°	654.0	657.8	663.6	677.1	679.1
37.5°	628.9	632.8	640.5	655.9	659.8
40°	601.9	607.7	619.3	634.7	640.5
42.5°	574.9	582.6	596.1	613.5	621.2
45°	545.9	553.7	571.0	592.2	601.9
47.5°	515.1	524.7	545.9	573.0	580.7
50°	482.3	495.8	520.9	549.8	559.5
52.5°	449.5	464.9	495.8	526.7	536.3
55°	414.8	432.1	470.7	501.6	513.2
57.5°	380.0	399.3	443.7	476.5	488.1
60°	343.4	366.5	414.8	447.6	457.2
62.5°	306.7	333.7	385.8	418.6	426.3
65°	268.2	300.9	355.0	383.9	391.6
67.5°	231.5	270.1	324.1	345.3	345.3
70°	192.9	235.4	289.4	295.2	283.6
72.5°	154.3	202.6	250.8	229.6	219.9
75°	117.7	171.7	196.8	177.5	171.7
77.5°	88.7	138.9	138.9	127.3	123.5
80°	61.7	106.1	92.6	81.0	75.2
82.5°	40.5	59.8	48.2	38.6	32.8
85°	21.2	23.1	13.5	11.6	9.6
87.5°	7.7	3.9	1.9	3.9	1.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)