

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: P312327

Luminaire Tested: **14FCZ2-25-UNV-L83050-S-CP125-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: P312327
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: 14FCZ2-25-UNV-L83050-S-CP125-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS, 0.125" 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: 2430.0 lumens
Efficiency: N/A
Efficacy: 120.9 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

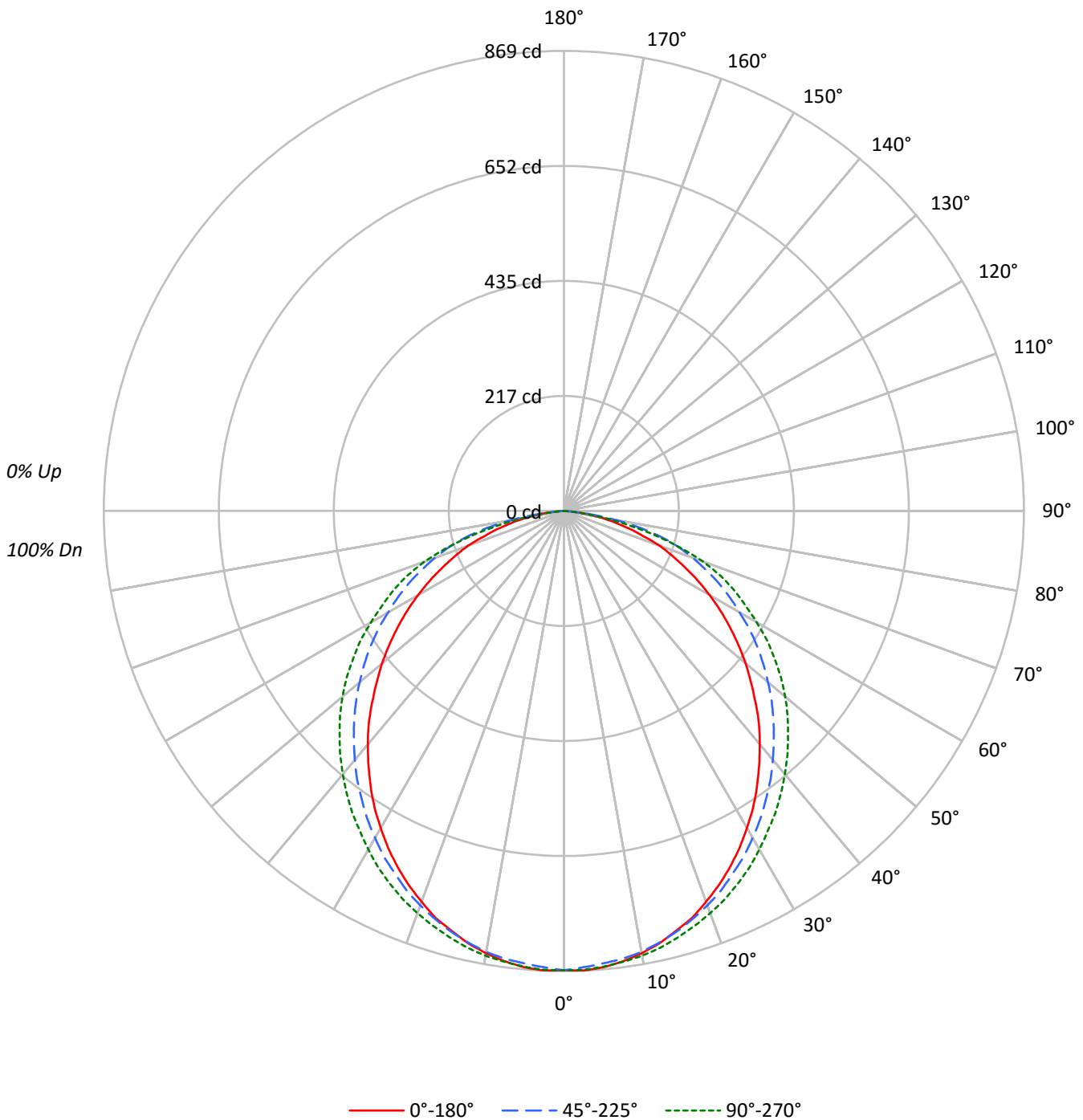
Input Watts (W): 20.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2334	2334	2334
5°	2337	2317	2334
10°	2318	2311	2331
15°	2286	2293	2323
20°	2249	2270	2315
25°	2204	2243	2307
30°	2149	2216	2295
35°	2090	2185	2288
40°	2023	2159	2281
45°	1948	2132	2279
50°	1876	2108	2285
55°	1797	2092	2278
60°	1712	2062	2263
65°	1611	2056	2263
70°	1517	2038	2199
75°	1315	1992	1879
80°	1065	1605	1251
85°	707	559	371



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.9	3.4
10°-20°	233.1	9.6
20°-30°	349.7	14.4
30°-40°	417.1	17.2
40°-50°	431.2	17.7
50°-60°	393.7	16.2
60°-70°	309.8	12.7
70°-80°	180.3	7.4
80°-90°	33.2	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°	664.7	27.4
0°-40°	1081.8	44.5
0°-60°	1906.6	78.5
0°-90°	2430.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2430.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	868	868	868	868	868	
5°	865	863	858	865	864	82
15°	820	822	823	834	834	232
25°	742	746	755	774	777	342
35°	636	645	665	690	696	398
45°	512	529	560	592	599	395
55°	383	404	446	478	486	343
65°	253	280	323	348	355	251
75°	126	157	192	188	181	134
85°	23	32	18	14	12	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	867.5	867.5	867.5	867.5	867.5
2.5°	868.7	866.3	862.7	868.7	867.5
5°	865.1	862.7	857.8	865.1	863.9
7.5°	857.8	855.4	853.0	860.2	859.0
10°	848.2	847.0	845.8	854.2	853.0
12.5°	836.1	836.1	834.9	844.6	844.6
15°	820.5	821.7	822.9	833.7	833.7
17.5°	806.0	804.8	808.4	820.5	821.7
20°	785.5	788.0	792.8	807.2	808.4
22.5°	765.1	767.5	775.9	790.4	794.0
25°	742.2	745.8	755.4	773.5	777.1
27.5°	718.1	722.9	736.1	755.4	759.0
30°	691.6	698.8	713.3	734.9	738.6
32.5°	665.1	672.3	690.4	712.0	716.9
35°	636.1	644.6	665.1	690.4	696.4
37.5°	606.0	616.9	641.0	666.3	673.5
40°	575.9	588.0	614.5	641.0	649.4
42.5°	545.8	557.8	586.7	616.9	625.3
45°	512.0	528.9	560.2	591.6	598.8
47.5°	479.5	497.6	532.5	563.9	573.5
50°	448.2	466.3	503.6	536.1	545.8
52.5°	415.7	434.9	474.7	508.4	516.9
55°	383.1	403.6	445.8	478.3	485.5
57.5°	350.6	372.3	415.7	447.0	455.4
60°	318.1	341.0	383.1	414.5	420.5
62.5°	285.5	309.6	353.0	380.7	386.7
65°	253.0	279.5	322.9	348.2	355.4
67.5°	221.7	248.2	290.4	314.5	320.5
70°	192.8	216.9	259.0	277.1	279.5
72.5°	156.6	186.7	227.7	237.3	231.3
75°	126.5	156.6	191.6	188.0	180.7
77.5°	96.4	126.5	149.4	137.3	127.7
80°	68.7	98.8	103.6	85.5	80.7
82.5°	44.6	68.7	57.8	44.6	36.1
85°	22.9	32.5	18.1	14.5	12.0
87.5°	7.2	4.8	2.4	2.4	1.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)