

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: P311939

Luminaire Tested: **14FCZ2-35-UNV-L83050-HRP-CP250-W2A-U-5000K**

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: P311939
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-18)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-35-UNV-L83050-HRP-CP250-W2A-U-5000K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.250"
POLYCARB SHEET
Light Source: (168) 5000K 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: 2514.0 lumens
Efficiency: N/A
Efficacy: 81.4 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

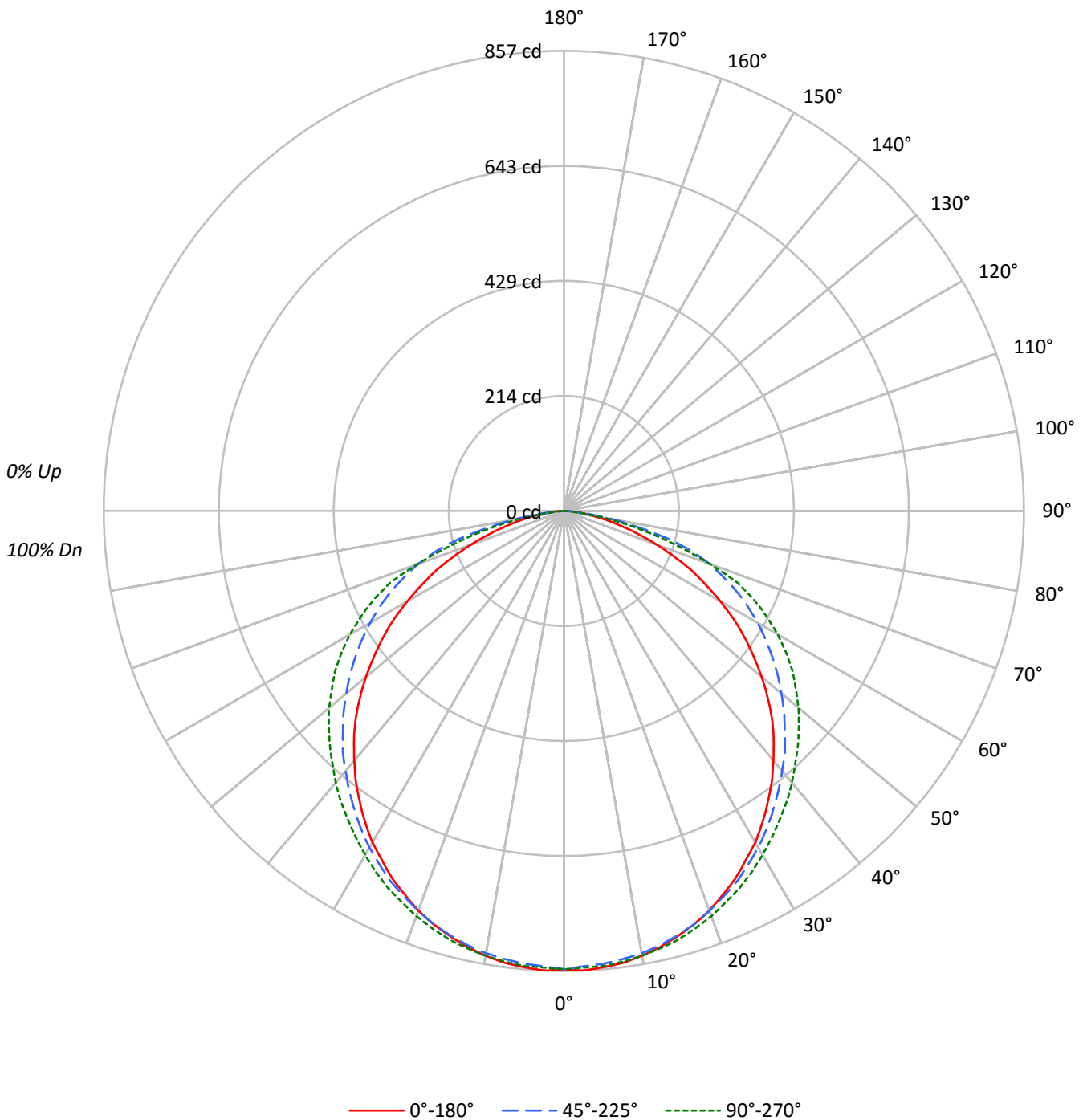
Input Watts (W): 30.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	78	96	88	82	77	85	79	75	82	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2298	2298	2298
5°	2304	2287	2298
10°	2298	2285	2298
15°	2284	2279	2301
20°	2268	2271	2300
25°	2244	2263	2300
30°	2216	2250	2299
35°	2176	2234	2303
40°	2133	2222	2322
45°	2088	2214	2347
50°	2015	2214	2390
55°	1929	2225	2441
60°	1813	2242	2472
65°	1671	2265	2486
70°	1456	2270	2289
75°	1200	2113	1850
80°	944	1519	1237
85°	732	587	293



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.8	3.2
10°-20°	231.9	9.2
20°-30°	352.2	14.0
30°-40°	426.8	17.0
40°-50°	449.7	17.9
50°-60°	419.8	16.7
60°-70°	335.5	13.3
70°-80°	184.6	7.3
80°-90°	32.6	1.3
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°	665.0	26.5
0°-40°	1091.7	43.4
0°-60°	1961.3	78.0
0°-90°	2514.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2514.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	854	854	854	854	854	
5°	853	851	847	852	851	81
15°	820	820	818	826	826	231
25°	756	757	762	773	775	348
35°	662	669	680	697	701	415
45°	549	559	582	608	617	422
55°	411	432	474	508	520	367
65°	262	296	356	385	390	258
75°	115	165	203	183	178	124
85°	24	30	19	12	10	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	853.8	853.8	853.8	853.8	853.8
2.5°	856.9	854.6	849.0	853.8	851.4
5°	853.0	850.6	846.7	852.2	850.6
7.5°	849.0	845.9	841.9	848.2	846.7
10°	841.1	838.7	836.4	841.9	841.1
12.5°	831.6	830.8	828.5	834.8	834.0
15°	819.8	819.8	818.2	826.1	826.1
17.5°	807.1	806.3	807.1	815.8	815.0
20°	792.1	792.1	792.9	803.2	803.2
22.5°	773.9	774.7	777.1	789.7	788.9
25°	755.7	757.3	762.1	773.1	774.7
27.5°	733.6	737.6	743.1	756.5	758.1
30°	713.1	715.4	724.1	736.8	739.9
32.5°	688.5	693.3	702.8	717.0	721.0
35°	662.5	668.8	679.9	697.2	701.2
37.5°	636.4	641.9	656.9	675.1	682.2
40°	607.1	616.6	632.4	653.0	660.9
42.5°	578.7	588.2	609.5	630.8	638.0
45°	548.6	558.9	581.8	607.9	616.6
47.5°	515.4	527.3	556.5	584.2	593.7
50°	481.4	496.4	528.9	559.7	570.8
52.5°	445.9	464.8	502.0	534.4	544.7
55°	411.1	431.6	474.3	507.5	520.2
57.5°	375.5	397.6	445.9	483.8	490.9
60°	336.8	363.6	416.6	449.8	459.3
62.5°	298.8	329.6	386.6	418.2	426.1
65°	262.5	295.7	355.7	385.0	390.5
67.5°	222.9	262.5	321.7	348.6	350.2
70°	185.0	230.8	288.5	301.2	290.9
72.5°	147.8	196.8	249.8	239.5	230.8
75°	115.4	165.2	203.2	182.6	177.9
77.5°	85.4	135.2	145.5	134.4	125.7
80°	60.9	106.7	98.0	83.8	79.8
82.5°	41.9	67.2	53.8	41.9	36.4
85°	23.7	30.0	19.0	11.9	9.5
87.5°	10.3	7.1	4.0	3.2	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)