

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: P308771

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-CP250-W2A-U-2700K**

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: P308771
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-33)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-34HE-UNV-L82765-CP250-W2A-U-2700K
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.250" POLYCARB SHEET
Light Source: (168) 3000K 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: 2636.0 lumens
Efficiency: N/A
Efficacy: 95.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

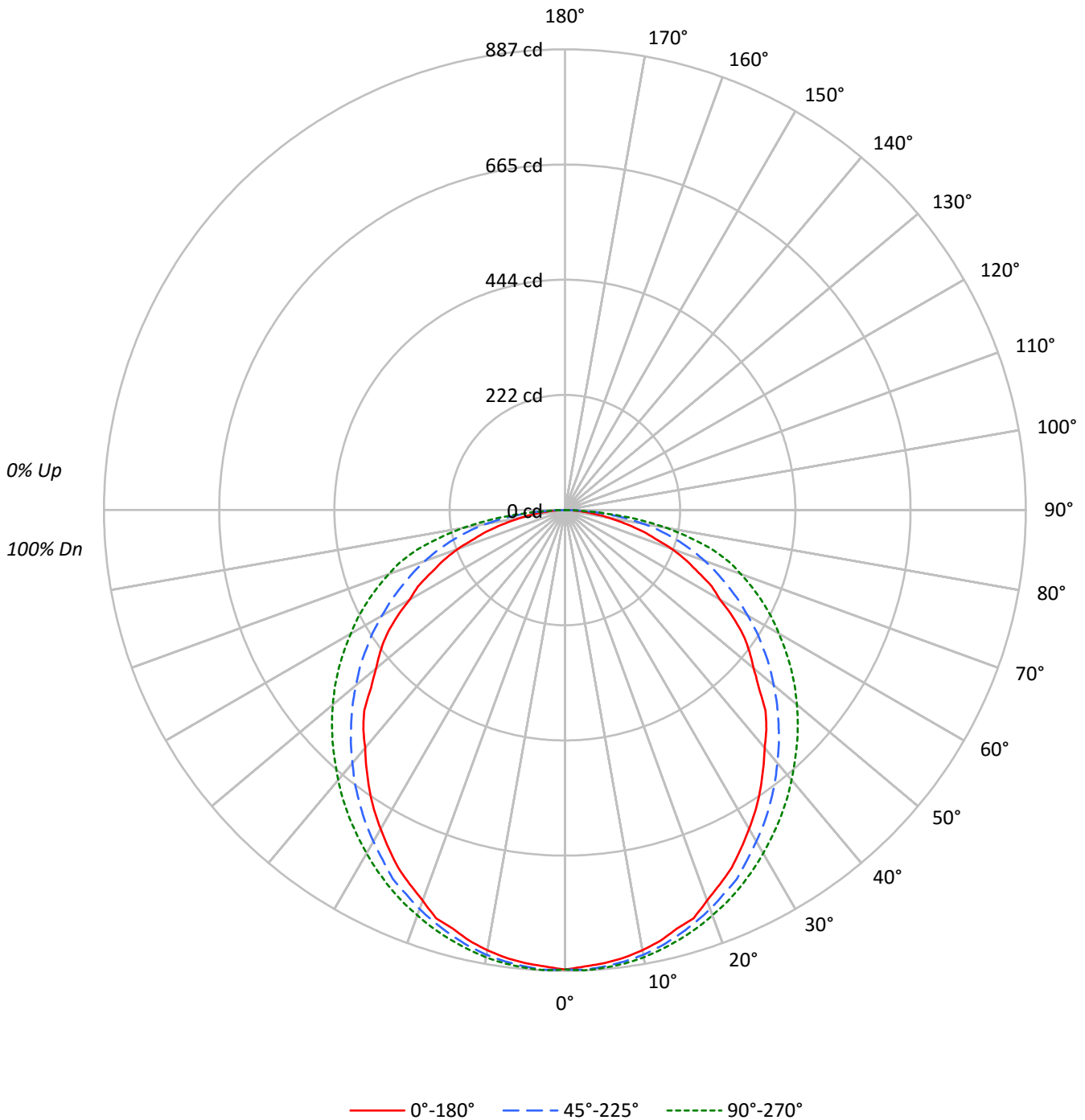
Input Watts (W): 27.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	98	94	105	100	96	92	96	93	90	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	51	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2380	2380	2380
5°	2365	2382	2389
10°	2351	2375	2389
15°	2323	2359	2383
20°	2291	2341	2377
25°	2255	2326	2375
30°	2203	2289	2372
35°	2155	2263	2375
40°	2101	2234	2385
45°	2079	2213	2406
50°	1986	2197	2440
55°	1965	2190	2492
60°	1854	2186	2560
65°	1799	2201	2675
70°	1727	2253	2839
75°	1574	2322	3057
80°	1350	2405	3088
85°	1090	2297	2649



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.7	3.2
10°-20°	238.7	9.1
20°-30°	359.3	13.6
30°-40°	431.2	16.4
40°-50°	450.7	17.1
50°-60°	420.0	15.9
60°-70°	344.5	13.1
70°-80°	232.1	8.8
80°-90°	75.6	2.9
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°	681.7	25.9
0°-40°	1113.0	42.2
0°-60°	1983.7	75.3
0°-90°	2636.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2636.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	884	884	884	884	884	
5°	876	878	882	883	884	83
15°	834	839	847	854	855	236
25°	760	764	784	795	800	349
35°	656	665	689	713	723	410
45°	546	550	582	617	632	417
55°	419	426	467	511	531	371
65°	283	295	346	396	420	281
75°	151	168	223	274	294	159
85°	35	50	74	87	86	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	884.4	884.4	884.4	884.4	884.4
2.5°	879.4	881.9	885.7	886.9	886.9
5°	875.6	878.1	881.9	883.1	884.4
7.5°	869.3	871.8	876.8	879.4	880.6
10°	860.4	863.0	869.3	873.0	874.3
12.5°	849.1	851.6	859.2	864.2	865.5
15°	833.9	839.0	846.6	854.1	855.4
17.5°	823.8	822.6	832.7	841.5	844.0
20°	799.9	806.2	817.5	827.6	830.2
22.5°	779.7	784.7	799.9	811.2	816.3
25°	759.5	764.5	783.5	794.8	799.9
27.5°	734.3	741.8	759.5	775.9	782.2
30°	709.0	716.6	736.8	755.7	763.3
32.5°	683.8	692.6	714.1	734.3	743.1
35°	656.0	664.9	688.8	712.8	722.9
37.5°	627.0	638.4	663.6	690.1	701.5
40°	598.0	609.4	635.9	666.1	678.8
42.5°	574.0	579.1	609.4	642.2	654.8
45°	546.3	550.1	581.6	616.9	632.1
47.5°	505.9	519.8	553.9	593.0	608.1
50°	474.4	489.5	524.8	566.5	582.9
52.5°	447.9	458.0	497.1	538.7	557.6
55°	418.9	426.4	466.8	511.0	531.1
57.5°	383.5	397.4	437.8	483.2	503.4
60°	344.4	362.1	406.2	455.4	475.6
62.5°	319.2	329.3	377.2	426.4	449.1
65°	282.6	295.2	345.7	396.2	420.1
67.5°	252.3	264.9	316.7	367.1	391.1
70°	219.5	232.1	286.4	336.9	360.8
72.5°	181.7	199.3	256.1	306.6	331.8
75°	151.4	167.8	223.3	273.8	294.0
77.5°	117.3	138.8	190.5	232.1	247.3
80°	87.1	108.5	155.2	185.5	199.3
82.5°	59.3	80.7	116.1	138.8	146.3
85°	35.3	50.5	74.4	87.1	85.8
87.5°	16.4	21.4	30.3	30.3	29.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)