

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: P312835

Luminaire Tested: **22FCZ2-34HE-UNV-L83050-CP250-W2A-U-3000K**

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: P312835
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-L83050-CP250-W2A-U-3000K
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: 2714.0 lumens
Efficiency: N/A
Efficacy: 98.7 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

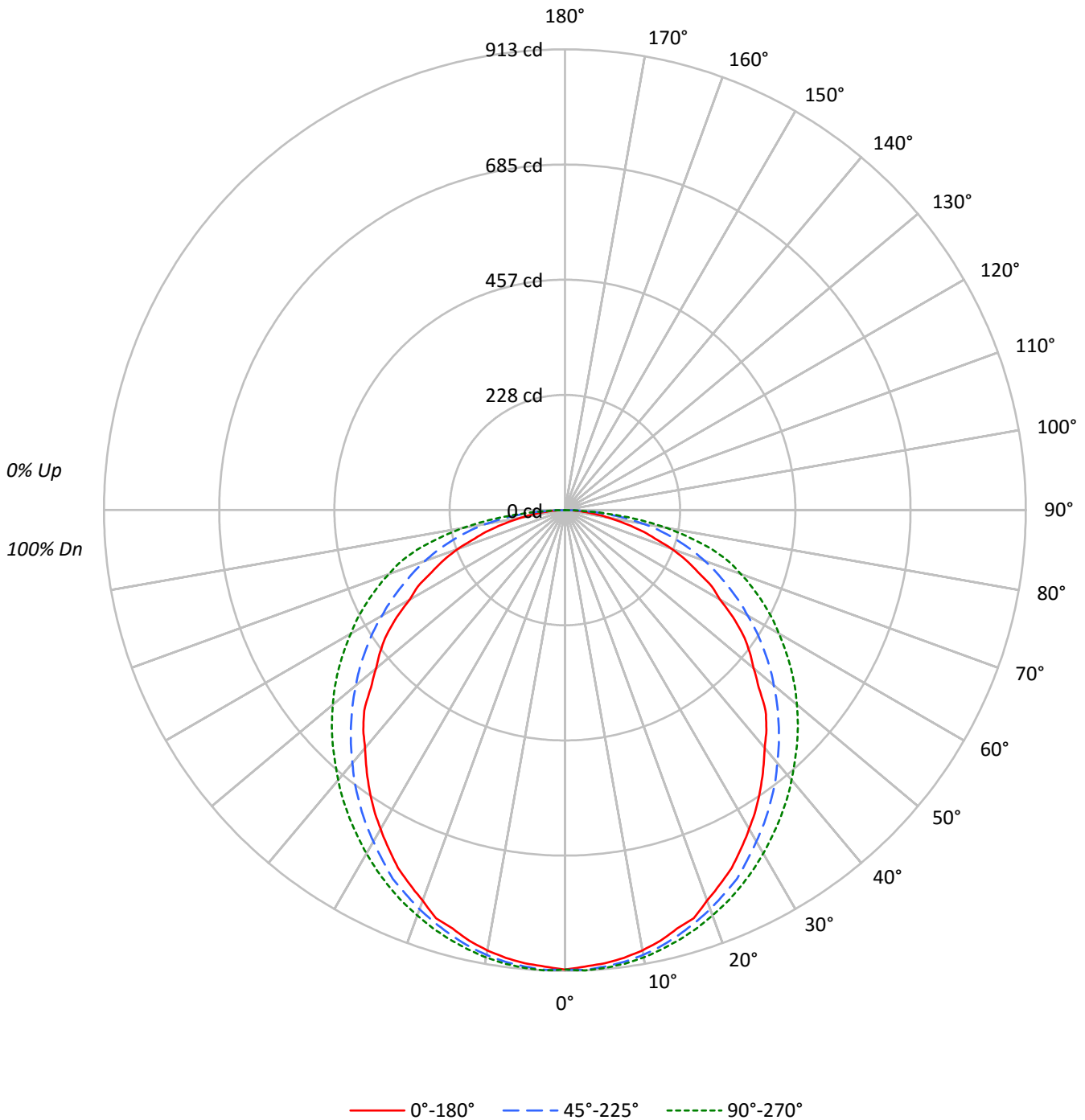
Input Watts (W): 27.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2450	2450	2450
5°	2435	2453	2460
10°	2421	2446	2460
15°	2392	2428	2454
20°	2358	2410	2448
25°	2322	2395	2445
30°	2268	2357	2442
35°	2219	2330	2445
40°	2163	2300	2455
45°	2140	2279	2477
50°	2045	2262	2512
55°	2023	2255	2566
60°	1908	2251	2636
65°	1853	2266	2755
70°	1778	2320	2923
75°	1621	2390	3147
80°	1389	2476	3180
85°	1124	2365	2726



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.2	3.2
10°-20°	245.8	9.1
20°-30°	369.9	13.6
30°-40°	444.0	16.4
40°-50°	464.1	17.1
50°-60°	432.5	15.9
60°-70°	354.7	13.1
70°-80°	239.0	8.8
80°-90°	77.9	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°	701.9	25.9
0°-40°	1145.9	42.2
0°-60°	2042.4	75.3
0°-90°	2714.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2714.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	911	911	911	911	911	
5°	902	904	908	909	911	86
15°	859	864	872	879	881	243
25°	782	787	807	818	824	359
35°	676	685	709	734	744	422
45°	562	566	599	635	651	430
55°	431	439	481	526	547	382
65°	291	304	356	408	433	289
75°	156	173	230	282	303	164
85°	36	52	77	90	88	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	910.6	910.6	910.6	910.6	910.6
2.5°	905.4	908.0	911.9	913.2	913.2
5°	901.5	904.1	908.0	909.3	910.6
7.5°	895.0	897.6	902.8	905.4	906.7
10°	885.9	888.5	895.0	898.9	900.2
12.5°	874.2	876.8	884.6	889.8	891.1
15°	858.6	863.8	871.6	879.4	880.7
17.5°	848.2	846.9	857.3	866.4	869.0
20°	823.5	830.0	841.7	852.1	854.7
22.5°	802.8	808.0	823.5	835.2	840.4
25°	782.0	787.2	806.7	818.3	823.5
27.5°	756.0	763.8	782.0	798.9	805.4
30°	730.0	737.8	758.6	778.1	785.9
32.5°	704.0	713.1	735.2	756.0	765.1
35°	675.5	684.6	709.2	733.9	744.3
37.5°	645.6	657.3	683.3	710.5	722.2
40°	615.7	627.4	654.7	685.9	698.8
42.5°	591.0	596.2	627.4	661.2	674.2
45°	562.4	566.3	598.8	635.2	650.8
47.5°	520.9	535.2	570.2	610.5	626.1
50°	488.4	504.0	540.4	583.2	600.1
52.5°	461.1	471.5	511.8	554.7	574.1
55°	431.3	439.0	480.6	526.1	546.9
57.5°	394.9	409.2	450.7	497.5	518.3
60°	354.6	372.8	418.3	468.9	489.7
62.5°	328.6	339.0	388.4	439.0	462.4
65°	291.0	304.0	355.9	407.9	432.6
67.5°	259.8	272.8	326.0	378.0	402.7
70°	226.0	239.0	294.9	346.8	371.5
72.5°	187.1	205.2	263.7	315.6	341.6
75°	155.9	172.8	229.9	281.9	302.7
77.5°	120.8	142.9	196.1	239.0	254.6
80°	89.6	111.7	159.8	190.9	205.2
82.5°	61.1	83.1	119.5	142.9	150.7
85°	36.4	52.0	76.6	89.6	88.3
87.5°	16.9	22.1	31.2	31.2	29.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)