

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: P309312

Luminaire Tested: **24FCZ2-35-UNV-L82765-HRP-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: P309312
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-35-UNV-L82765-HRP-CP250-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. 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: 2161.0 lumens
Efficiency: N/A
Efficacy: 77.7 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

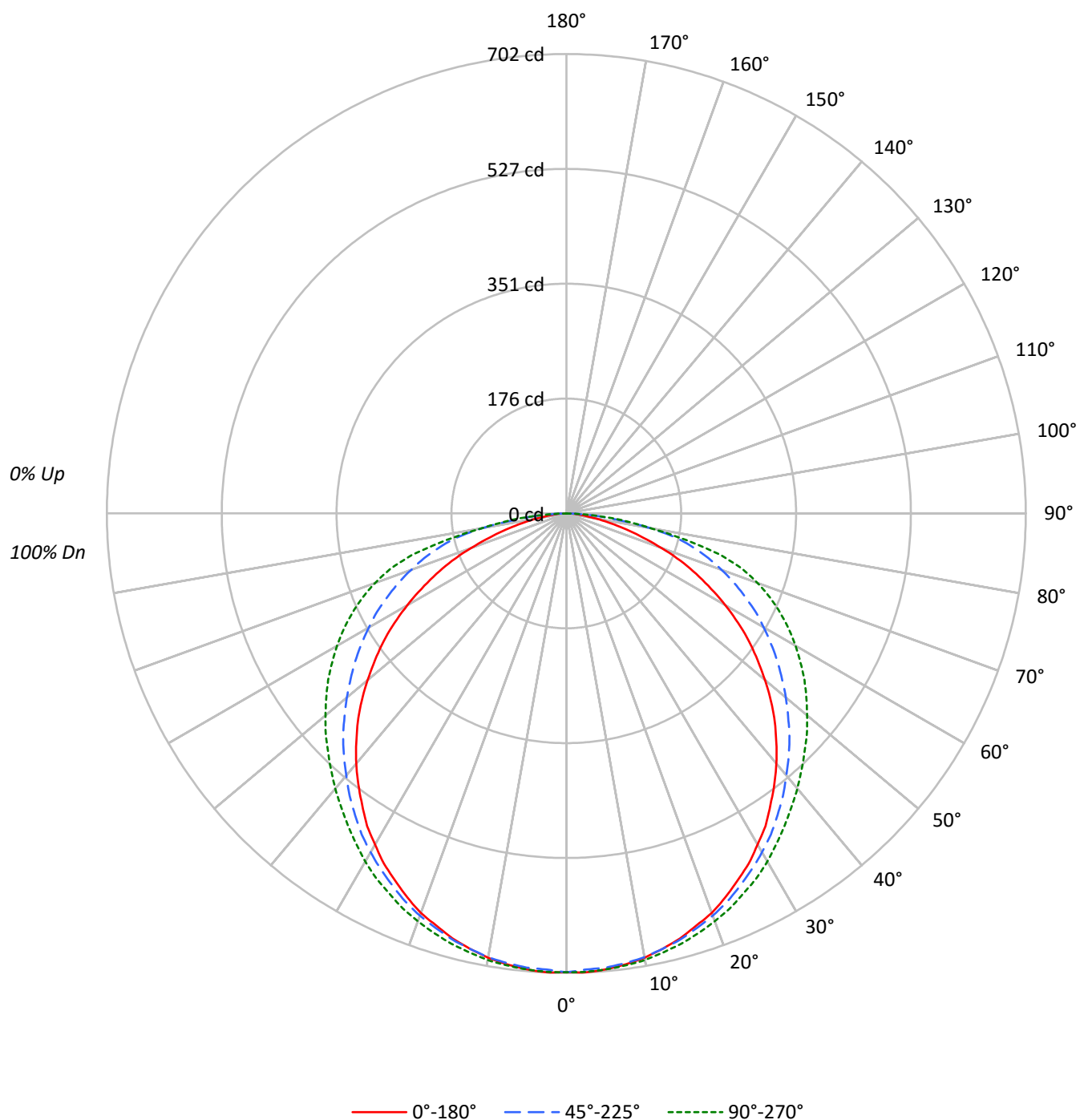
Input Watts (W): 27.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	108	103	98	94	105	101	96	93	96	93	90		92	90	87		82
2	98	89	82	76	95	87	80	75	83	78	73		80	75	71		67
3	89	78	69	62	86	76	68	62	73	66	61		70	64	59		56
4	81	68	59	52	79	67	59	52	65	57	51		62	56	50		48
5	74	61	52	45	72	60	51	45	58	50	44		56	49	44		41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		36
7	63	50	41	34	62	49	40	34	47	39	34		46	39	34		31
8	59	45	36	30	57	44	36	30	43	36	30		42	35	30		28
9	55	41	33	27	54	41	33	27	40	32	27		39	32	27		25
10	52	38	30	25	50	38	30	25	37	30	25		36	29	24		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	943	943	943
5°	944	941	944
10°	942	941	947
15°	936	939	948
20°	930	937	949
25°	919	932	951
30°	908	929	954
35°	893	924	955
40°	877	918	964
45°	857	918	980
50°	830	917	1006
55°	800	923	1042
60°	755	937	1088
65°	697	959	1149
70°	609	993	1224
75°	494	1044	1265
80°	364	1024	1024
85°	279	755	852



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.4	3.1
10°-20°	190.7	8.8
20°-30°	290.4	13.4
30°-40°	352.6	16.3
40°-50°	372.5	17.2
50°-60°	351.5	16.3
60°-70°	292.3	13.5
70°-80°	192.3	8.9
80°-90°	52.4	2.4
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°	547.5	25.3
0°-40°	900.1	41.7
0°-60°	1624.1	75.2
0°-90°	2161.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2161.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	701	701	701	701	701	
5°	699	699	697	699	699	66
15°	672	673	674	680	680	190
25°	619	622	628	639	640	285
35°	544	550	563	577	582	340
45°	450	460	482	506	515	347
55°	341	356	394	431	444	304
65°	219	244	301	346	361	216
75°	95	138	201	238	243	102
85°	18	40	49	54	55	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	701.1	701.1	701.1	701.1	701.1
2.5°	702.0	701.1	697.5	701.1	701.1
5°	699.3	699.3	696.6	699.3	699.3
7.5°	694.8	694.8	693.0	696.6	696.6
10°	689.4	689.4	688.5	693.0	693.0
12.5°	681.2	682.1	681.2	686.7	686.7
15°	672.2	673.1	674.0	680.3	680.3
17.5°	660.4	662.2	664.0	671.3	672.2
20°	649.6	650.5	654.1	662.2	663.1
22.5°	635.1	637.8	642.3	650.5	653.2
25°	618.8	622.4	627.9	638.7	640.5
27.5°	603.4	606.1	613.4	625.1	628.8
30°	584.4	589.0	598.0	609.8	614.3
32.5°	566.3	570.9	581.7	594.4	598.0
35°	543.7	550.1	562.7	577.2	581.7
37.5°	522.0	528.3	543.7	560.0	565.4
40°	499.4	506.6	522.9	541.9	549.1
42.5°	475.0	484.9	503.0	523.8	532.0
45°	450.5	459.6	482.2	505.7	514.8
47.5°	424.3	435.2	459.6	487.6	498.5
50°	396.3	409.8	437.9	468.6	480.4
52.5°	368.2	383.6	415.3	449.6	462.3
55°	341.1	355.5	393.5	430.6	444.2
57.5°	311.2	329.3	370.9	410.7	424.3
60°	280.5	300.4	348.3	389.9	404.4
62.5°	249.7	272.3	326.6	368.2	383.6
65°	218.9	244.3	301.3	345.6	361.0
67.5°	189.1	217.1	277.7	322.1	337.5
70°	154.7	190.0	252.4	295.8	311.2
72.5°	123.0	163.7	228.0	268.7	282.3
75°	95.0	138.4	200.8	237.9	243.4
77.5°	69.7	113.1	172.8	185.5	186.4
80°	47.0	90.5	132.1	130.3	132.1
82.5°	30.8	67.9	83.2	93.2	94.1
85°	18.1	39.8	48.9	54.3	55.2
87.5°	9.0	13.6	17.2	18.1	19.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)