

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: P310079

Luminaire Tested: **24FCZ2-40-UNV-L82765-RDP-CP250-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: P310079
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-40-UNV-L82765-RDP-CP250-W2A-U-4000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.250" 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: 2306.0 lumens
Efficiency: N/A
Efficacy: 69.7 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

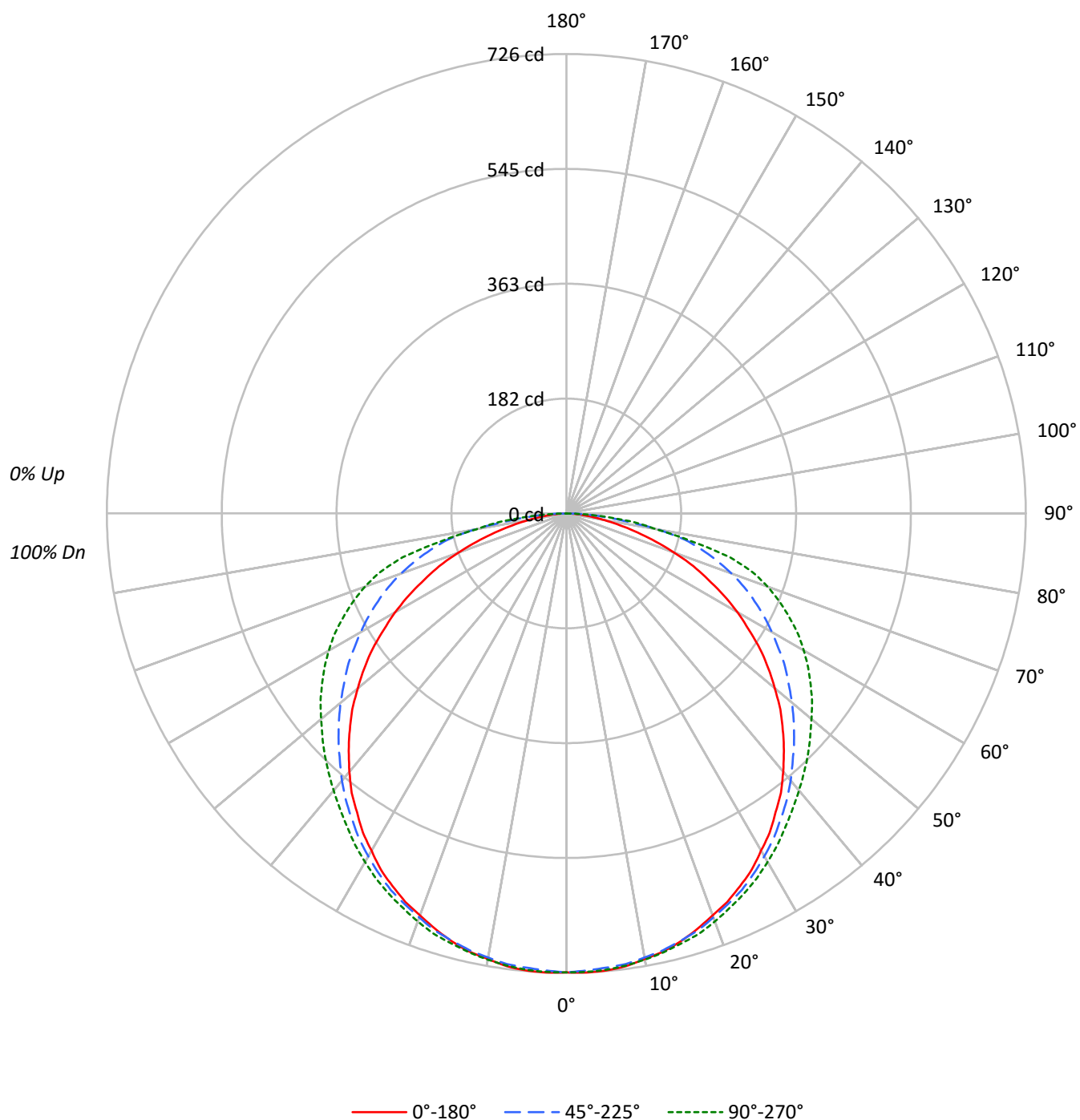
Input Watts (W): 33.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	92	96	93	89		92	89	87		82
2	97	89	81	75	95	87	80	74	83	77	72		80	75	71		67
3	88	77	68	62	86	76	67	61	72	66	60		70	64	59		56
4	81	68	59	52	78	67	58	51	64	57	51		62	55	50		47
5	74	60	51	44	72	59	51	44	57	49	43		55	48	43		40
6	68	54	45	38	66	53	45	38	51	44	38		50	43	37		35
7	63	49	40	34	61	48	40	34	47	39	33		45	38	33		31
8	59	45	36	30	57	44	36	30	43	35	30		41	34	29		27
9	55	41	33	27	53	40	32	27	39	32	27		38	31	26		24
10	51	38	30	24	50	37	29	24	36	29	24		35	29	24		22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	976	976	976
5°	979	973	978
10°	977	974	978
15°	975	974	980
20°	968	973	983
25°	965	975	985
30°	956	972	988
35°	947	969	992
40°	936	968	1004
45°	921	969	1027
50°	900	974	1058
55°	877	990	1105
60°	840	1010	1167
65°	787	1045	1238
70°	716	1093	1332
75°	607	1154	1391
80°	479	1161	1126
85°	354	883	990



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.8	3.0
10°-20°	198.0	8.6
20°-30°	302.7	13.1
30°-40°	370.1	16.0
40°-50°	394.5	17.1
50°-60°	377.1	16.4
60°-70°	319.5	13.9
70°-80°	214.7	9.3
80°-90°	60.6	2.6
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°	569.5	24.7
0°-40°	939.6	40.7
0°-60°	1711.2	74.2
0°-90°	2306.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2306.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	725	725	725	725	725	
5°	725	724	721	724	724	69
15°	700	700	699	705	703	197
25°	650	652	656	662	663	299
35°	576	581	590	602	604	361
45°	484	492	509	531	540	373
55°	374	388	422	455	471	333
65°	247	272	328	372	389	245
75°	117	159	222	260	268	125
85°	23	47	57	62	64	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	725.2	725.2	725.2	725.2	725.2
2.5°	726.3	726.3	722.9	725.2	725.2
5°	725.2	724.0	720.6	724.0	724.0
7.5°	721.7	720.6	718.3	721.7	720.6
10°	714.9	714.9	712.6	716.0	716.0
12.5°	709.2	708.0	706.9	711.4	710.3
15°	700.0	700.0	698.9	704.6	703.4
17.5°	688.6	689.7	690.9	695.4	696.6
20°	676.0	678.3	679.4	686.3	686.3
22.5°	664.5	665.7	668.0	674.8	674.8
25°	649.7	652.0	656.5	662.3	663.4
27.5°	634.8	636.0	641.7	649.7	650.8
30°	615.4	618.8	625.7	634.8	636.0
32.5°	598.2	601.6	609.6	618.8	621.1
35°	576.5	581.1	590.2	601.6	603.9
37.5°	557.0	560.5	571.9	584.5	587.9
40°	533.0	539.9	551.3	566.2	571.9
42.5°	509.0	515.9	529.6	549.0	555.9
45°	483.8	491.8	509.0	530.7	539.9
47.5°	458.7	467.8	487.3	512.4	522.7
50°	430.1	441.5	465.5	494.1	505.6
52.5°	402.6	416.3	442.7	474.7	489.5
55°	374.0	387.7	422.1	455.2	471.2
57.5°	342.0	360.3	398.0	435.8	452.9
60°	312.3	329.4	375.2	416.3	433.5
62.5°	280.2	303.1	352.3	395.8	412.9
65°	247.1	272.2	328.3	371.7	388.9
67.5°	217.3	244.8	304.3	347.7	364.9
70°	181.9	216.2	277.9	321.4	338.6
72.5°	148.7	186.4	250.5	292.8	308.8
75°	116.7	159.0	221.9	259.6	267.6
77.5°	86.9	131.5	192.2	208.2	202.5
80°	61.8	105.2	149.8	141.8	145.3
82.5°	40.0	80.1	92.6	105.2	108.7
85°	22.9	46.9	57.2	61.8	64.1
87.5°	10.3	17.2	22.9	22.9	21.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)