

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: P310049

Luminaire Tested: **24FCZ2-40-UNV-L82765-RDP-CA125-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: P310049
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-CA125-W2A-U-2700K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC SHEET
Light Source: (168) 2700K 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: 2276.0 lumens
Efficiency: N/A
Efficacy: 69.6 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

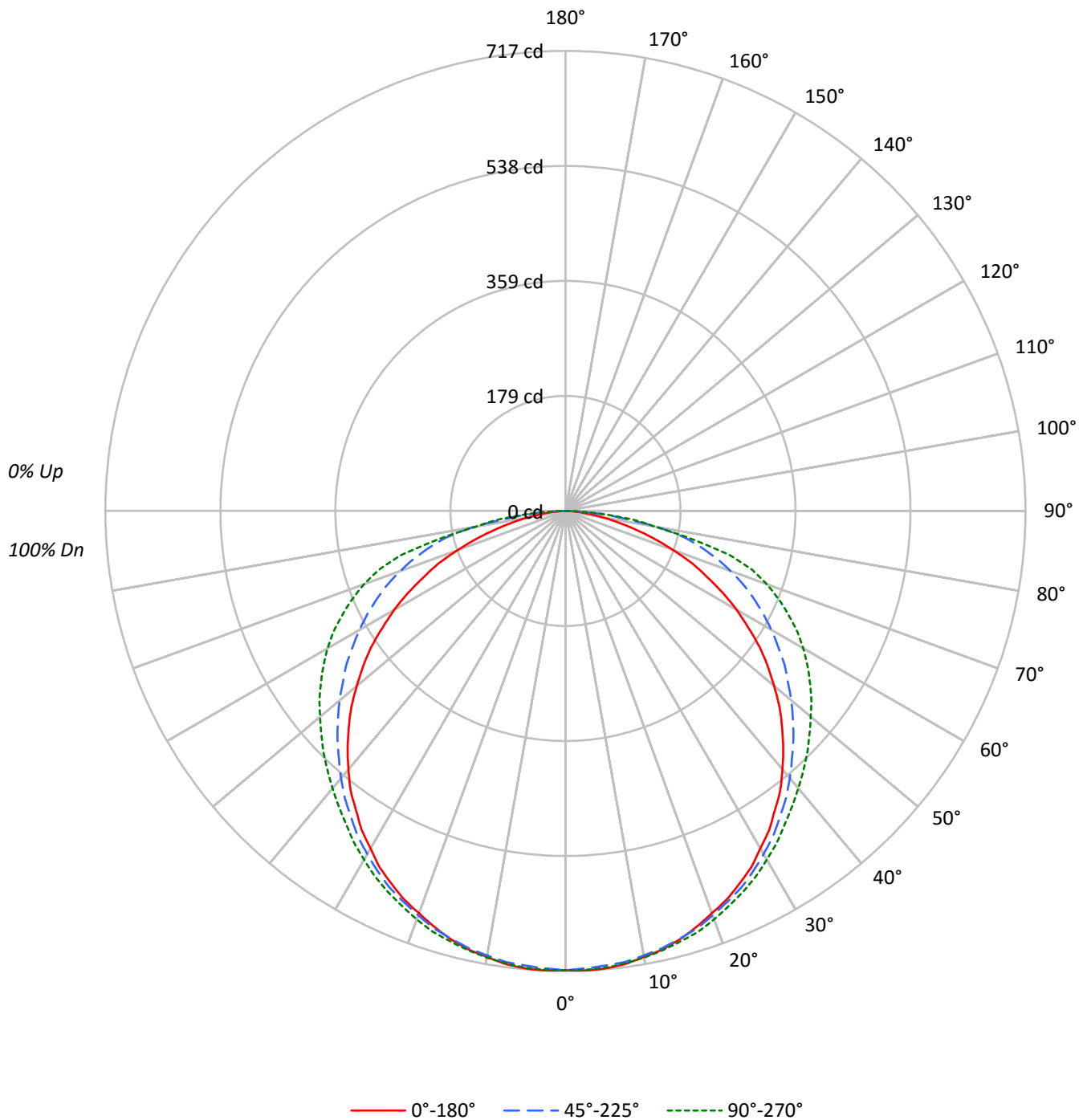
Input Watts (W): 32.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	963	963	963
5°	967	961	965
10°	964	961	966
15°	962	961	967
20°	955	960	970
25°	952	962	972
30°	944	959	975
35°	935	957	979
40°	924	956	991
45°	909	956	1014
50°	889	962	1045
55°	866	977	1091
60°	829	996	1151
65°	776	1032	1222
70°	706	1079	1315
75°	599	1138	1373
80°	473	1146	1111
85°	349	871	976



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.9	3.0
10°-20°	195.4	8.6
20°-30°	298.8	13.1
30°-40°	365.3	16.0
40°-50°	389.3	17.1
50°-60°	372.2	16.4
60°-70°	315.3	13.9
70°-80°	211.9	9.3
80°-90°	59.8	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°	562.1	24.7
0°-40°	927.4	40.7
0°-60°	1689.0	74.2
0°-90°	2276.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2276.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	716	716	716	716	716	
5°	716	715	711	715	715	68
15°	691	691	690	695	694	195
25°	641	644	648	654	655	296
35°	569	574	582	594	596	356
45°	478	485	502	524	533	368
55°	369	383	417	449	465	329
65°	244	269	324	367	384	242
75°	115	157	219	256	264	123
85°	23	46	56	61	63	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	715.7	715.7	715.7	715.7	715.7
2.5°	716.9	716.9	713.5	715.7	715.7
5°	715.7	714.6	711.2	714.6	714.6
7.5°	712.4	711.2	709.0	712.4	711.2
10°	705.6	705.6	703.3	706.7	706.7
12.5°	699.9	698.8	697.7	702.2	701.1
15°	690.9	690.9	689.8	695.4	694.3
17.5°	679.6	680.7	681.9	686.4	687.5
20°	667.2	669.5	670.6	677.4	677.4
22.5°	655.9	657.0	659.3	666.1	666.1
25°	641.2	643.5	648.0	653.6	654.8
27.5°	626.6	627.7	633.3	641.2	642.4
30°	607.4	610.7	617.5	626.6	627.7
32.5°	590.4	593.8	601.7	610.7	613.0
35°	569.0	573.5	582.5	593.8	596.1
37.5°	549.8	553.2	564.5	576.9	580.3
40°	526.1	532.9	544.1	558.8	564.5
42.5°	502.4	509.1	522.7	541.9	548.7
45°	477.5	485.4	502.4	523.8	532.9
47.5°	452.7	461.7	480.9	505.8	515.9
50°	424.5	435.8	459.5	487.7	499.0
52.5°	397.4	410.9	436.9	468.5	483.2
55°	369.2	382.7	416.6	449.3	465.1
57.5°	337.5	355.6	392.9	430.1	447.1
60°	308.2	325.1	370.3	410.9	427.9
62.5°	276.6	299.2	347.7	390.6	407.5
65°	243.8	268.7	324.0	366.9	383.8
67.5°	214.5	241.6	300.3	343.2	360.1
70°	179.5	213.4	274.3	317.2	334.2
72.5°	146.8	184.0	247.2	289.0	304.8
75°	115.2	156.9	219.0	256.3	264.2
77.5°	85.8	129.8	189.7	205.5	199.8
80°	61.0	103.9	147.9	140.0	143.4
82.5°	39.5	79.0	91.4	103.9	107.2
85°	22.6	46.3	56.4	61.0	63.2
87.5°	10.2	16.9	22.6	22.6	21.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)