

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: P310303

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-RDP-CP250-W2A-U-3500K**

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: P310303
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: 24FCZ2-55HE-UNV-L82765-RDP-CP250-W2A-U-3500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.250" POLYCARB SHEET
Light Source: (336) 3500K 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: 3094.0 lumens
Efficiency: N/A
Efficacy: 71.5 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

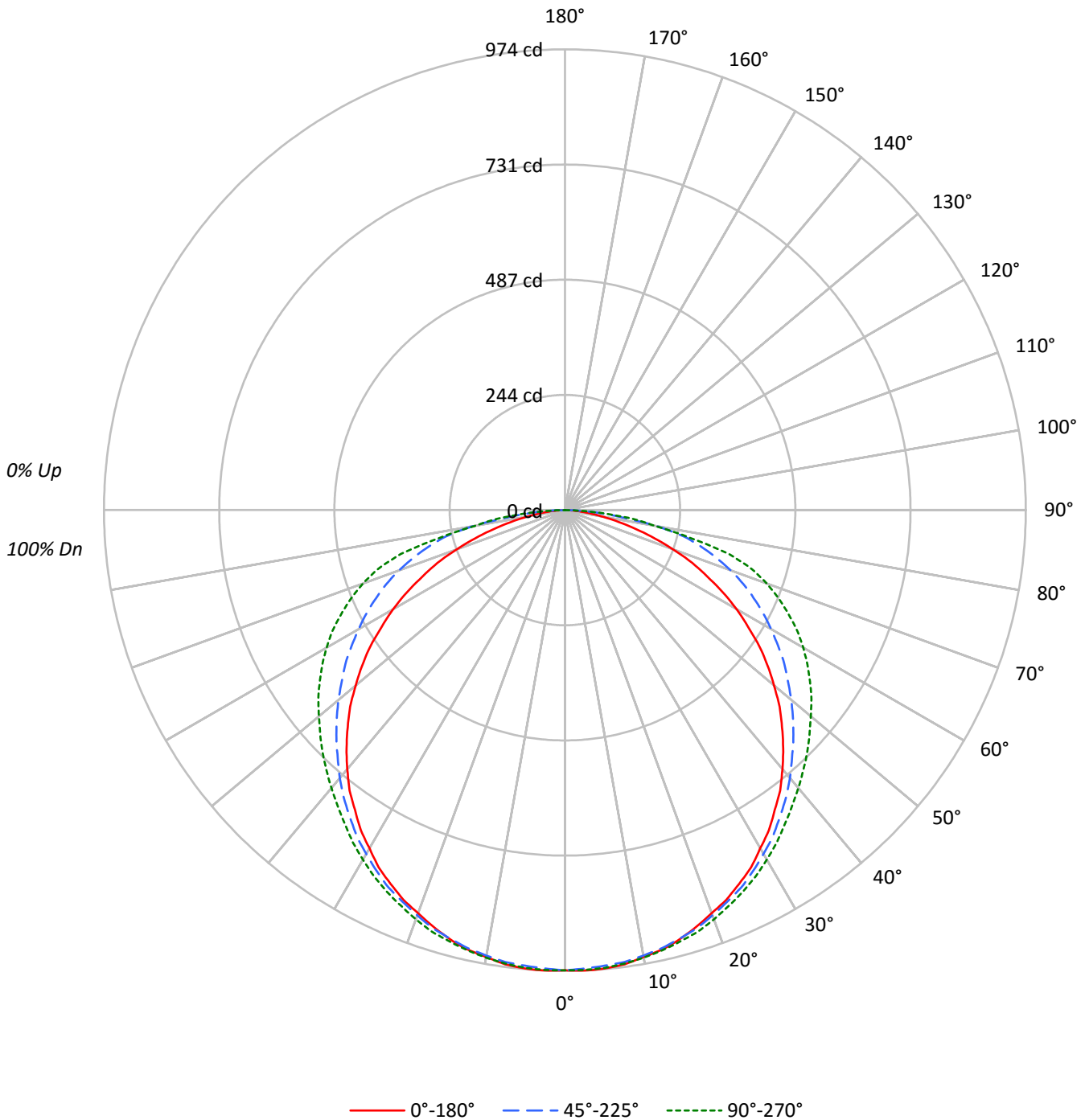
Input Watts (W): 43.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	68	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1309	1309	1309
5°	1314	1306	1312
10°	1311	1306	1313
15°	1308	1306	1315
20°	1299	1305	1318
25°	1294	1308	1321
30°	1283	1304	1326
35°	1271	1301	1331
40°	1256	1299	1348
45°	1235	1299	1378
50°	1208	1307	1420
55°	1177	1328	1483
60°	1128	1355	1565
65°	1055	1402	1661
70°	960	1467	1787
75°	814	1548	1867
80°	642	1557	1510
85°	474	1184	1326



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.3	3.0
10°-20°	265.6	8.6
20°-30°	406.2	13.1
30°-40°	496.6	16.0
40°-50°	529.2	17.1
50°-60°	506.0	16.4
60°-70°	428.7	13.9
70°-80°	288.1	9.3
80°-90°	81.3	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°	764.1	24.7
0°-40°	1260.7	40.7
0°-60°	2296.0	74.2
0°-90°	3094.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3094.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	973	973	973	973	973	
5°	973	971	967	971	971	92
15°	939	939	938	945	944	265
25°	872	875	881	889	890	402
35°	774	780	792	807	810	485
45°	649	660	683	712	724	501
55°	502	520	566	611	632	447
65°	332	365	440	499	522	329
75°	156	213	298	348	359	168
85°	31	63	77	83	86	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	973.0	973.0	973.0	973.0	973.0
2.5°	974.5	974.5	969.9	973.0	973.0
5°	973.0	971.4	966.8	971.4	971.4
7.5°	968.4	966.8	963.8	968.4	966.8
10°	959.2	959.2	956.1	960.7	960.7
12.5°	951.5	950.0	948.4	954.6	953.0
15°	939.2	939.2	937.7	945.4	943.8
17.5°	923.9	925.4	926.9	933.1	934.6
20°	907.0	910.1	911.6	920.8	920.8
22.5°	891.6	893.2	896.2	905.4	905.4
25°	871.7	874.8	880.9	888.6	890.1
27.5°	851.7	853.3	860.9	871.7	873.2
30°	825.6	830.3	839.5	851.7	853.3
32.5°	802.6	807.2	818.0	830.3	833.3
35°	773.5	779.6	791.9	807.2	810.3
37.5°	747.4	752.0	767.3	784.2	788.8
40°	715.2	724.4	739.7	759.7	767.3
42.5°	682.9	692.1	710.5	736.6	745.8
45°	649.2	659.9	682.9	712.1	724.4
47.5°	615.4	627.7	653.8	687.5	701.3
50°	577.0	592.4	624.6	663.0	678.3
52.5°	540.2	558.6	593.9	636.9	656.8
55°	501.8	520.2	566.3	610.8	632.3
57.5°	458.9	483.4	534.1	584.7	607.7
60°	419.0	442.0	503.4	558.6	581.6
62.5°	376.0	406.7	472.7	531.0	554.0
65°	331.5	365.2	440.4	498.8	521.8
67.5°	291.6	328.4	408.2	466.5	489.6
70°	244.0	290.1	372.9	431.2	454.3
72.5°	199.5	250.1	336.1	392.9	414.4
75°	156.5	213.3	297.7	348.4	359.1
77.5°	116.6	176.5	257.8	279.3	271.6
80°	82.9	141.2	201.0	190.3	194.9
82.5°	53.7	107.4	124.3	141.2	145.8
85°	30.7	62.9	76.7	82.9	85.9
87.5°	13.8	23.0	30.7	30.7	29.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)