

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: P310180

Luminaire Tested: **24FCZ2-50HE-UNV-L82765-RDP-CA08-W2A-U-5000K**

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: P310180
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: 24FCZ2-50HE-UNV-L82765-RDP-CA08-W2A-U-5000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" ACRYLIC SHEET
Light Source: (336) 5000K 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: 3182.0 lumens
Efficiency: N/A
Efficacy: 81.0 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

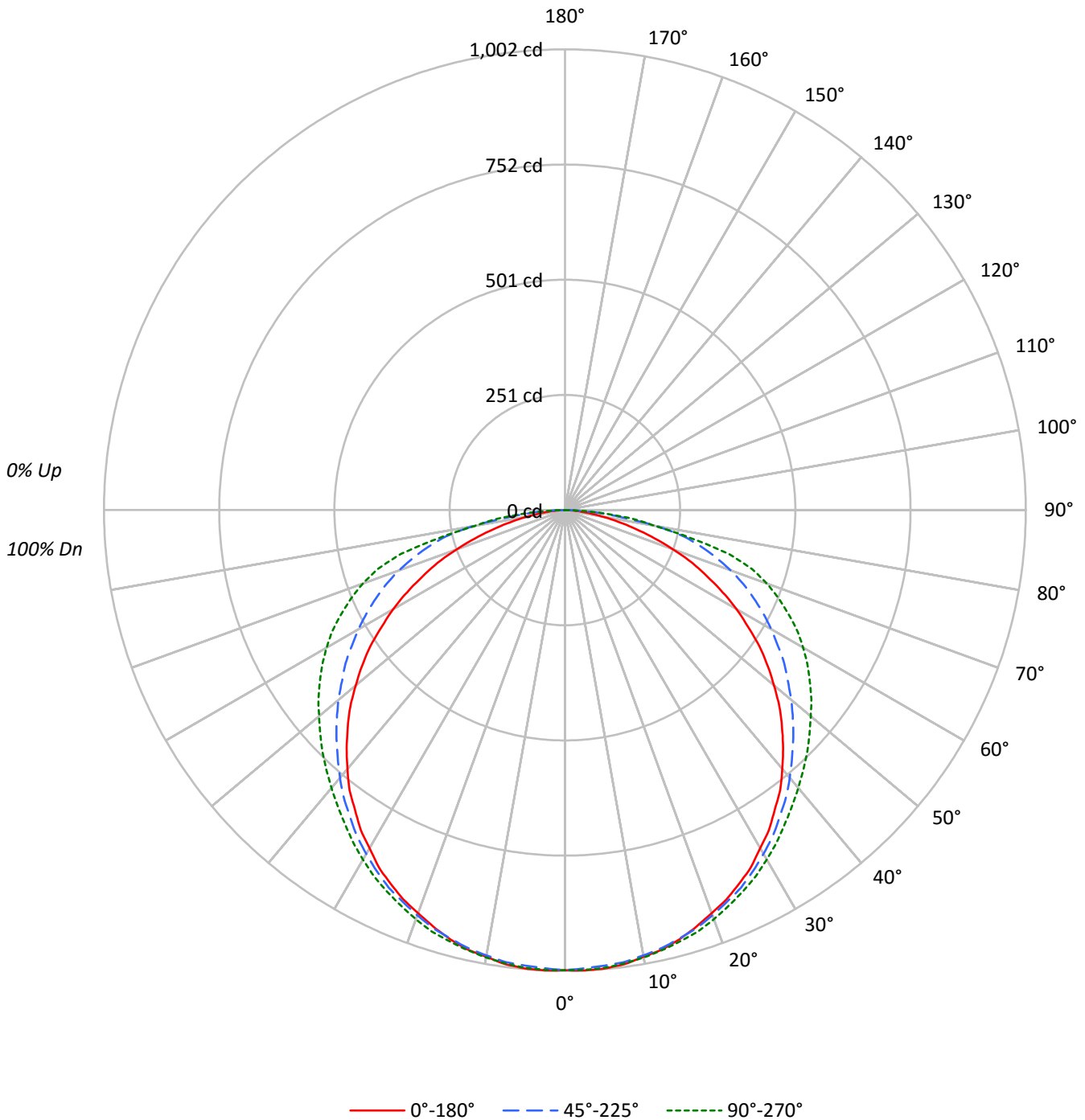
Input Watts (W): 39.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	67	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°	1346	1346	1346
5°	1351	1343	1349
10°	1348	1343	1350
15°	1345	1343	1352
20°	1336	1342	1356
25°	1331	1345	1359
30°	1319	1341	1363
35°	1307	1338	1369
40°	1292	1336	1386
45°	1270	1336	1418
50°	1242	1345	1460
55°	1211	1366	1525
60°	1160	1393	1610
65°	1085	1442	1708
70°	987	1509	1838
75°	837	1592	1920
80°	660	1602	1553
85°	488	1218	1365



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.9	3.0
10°-20°	273.2	8.6
20°-30°	417.7	13.1
30°-40°	510.7	16.0
40°-50°	544.3	17.1
50°-60°	520.4	16.4
60°-70°	440.9	13.9
70°-80°	296.3	9.3
80°-90°	83.6	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°	785.8	24.7
0°-40°	1296.5	40.7
0°-60°	2361.3	74.2
0°-90°	3182.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3182.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1001	1001	1001	1001	1001	
5°	1001	999	994	999	999	95
15°	966	966	964	972	971	272
25°	896	900	906	914	915	413
35°	796	802	814	830	833	498
45°	668	679	702	732	745	515
55°	516	535	582	628	650	460
65°	341	376	453	513	537	338
75°	161	219	306	358	369	172
85°	32	65	79	85	88	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1000.6	1000.6	1000.6	1000.6	1000.6
2.5°	1002.2	1002.2	997.5	1000.6	1000.6
5°	1000.6	999.1	994.3	999.1	999.1
7.5°	995.9	994.3	991.2	995.9	994.3
10°	986.4	986.4	983.3	988.0	988.0
12.5°	978.6	977.0	975.4	981.7	980.1
15°	965.9	965.9	964.3	972.2	970.7
17.5°	950.1	951.7	953.3	959.6	961.2
20°	932.8	935.9	937.5	947.0	947.0
22.5°	917.0	918.6	921.7	931.2	931.2
25°	896.5	899.6	905.9	913.8	915.4
27.5°	876.0	877.5	885.4	896.5	898.1
30°	849.1	853.9	863.3	876.0	877.5
32.5°	825.5	830.2	841.2	853.9	857.0
35°	795.5	801.8	814.4	830.2	833.3
37.5°	768.6	773.4	789.2	806.5	811.3
40°	735.5	745.0	760.7	781.3	789.2
42.5°	702.3	711.8	730.8	757.6	767.1
45°	667.6	678.7	702.3	732.3	745.0
47.5°	632.9	645.5	672.4	707.1	721.3
50°	593.4	609.2	642.4	681.8	697.6
52.5°	555.6	574.5	610.8	655.0	675.5
55°	516.1	535.0	582.4	628.2	650.3
57.5°	471.9	497.2	549.3	601.3	625.0
60°	430.9	454.6	517.7	574.5	598.2
62.5°	386.7	418.3	486.1	546.1	569.8
65°	340.9	375.6	453.0	513.0	536.6
67.5°	299.9	337.8	419.8	479.8	503.5
70°	251.0	298.3	383.5	443.5	467.2
72.5°	205.2	257.3	345.6	404.0	426.1
75°	161.0	219.4	306.2	358.3	369.3
77.5°	120.0	181.5	265.2	287.3	279.4
80°	85.2	145.2	206.8	195.7	200.4
82.5°	55.2	110.5	127.8	145.2	149.9
85°	31.6	64.7	78.9	85.2	88.4
87.5°	14.2	23.7	31.6	31.6	30.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)