

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: P310200

Luminaire Tested: **24FCZ2-50HE-UNV-L82765-RDP-CP125-W2A-U-5700K**

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: P310200
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-CP125-W2A-U-5700K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET
Light Source: (336) 5700K 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: 3148.0 lumens
Efficiency: N/A
Efficacy: 79.7 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

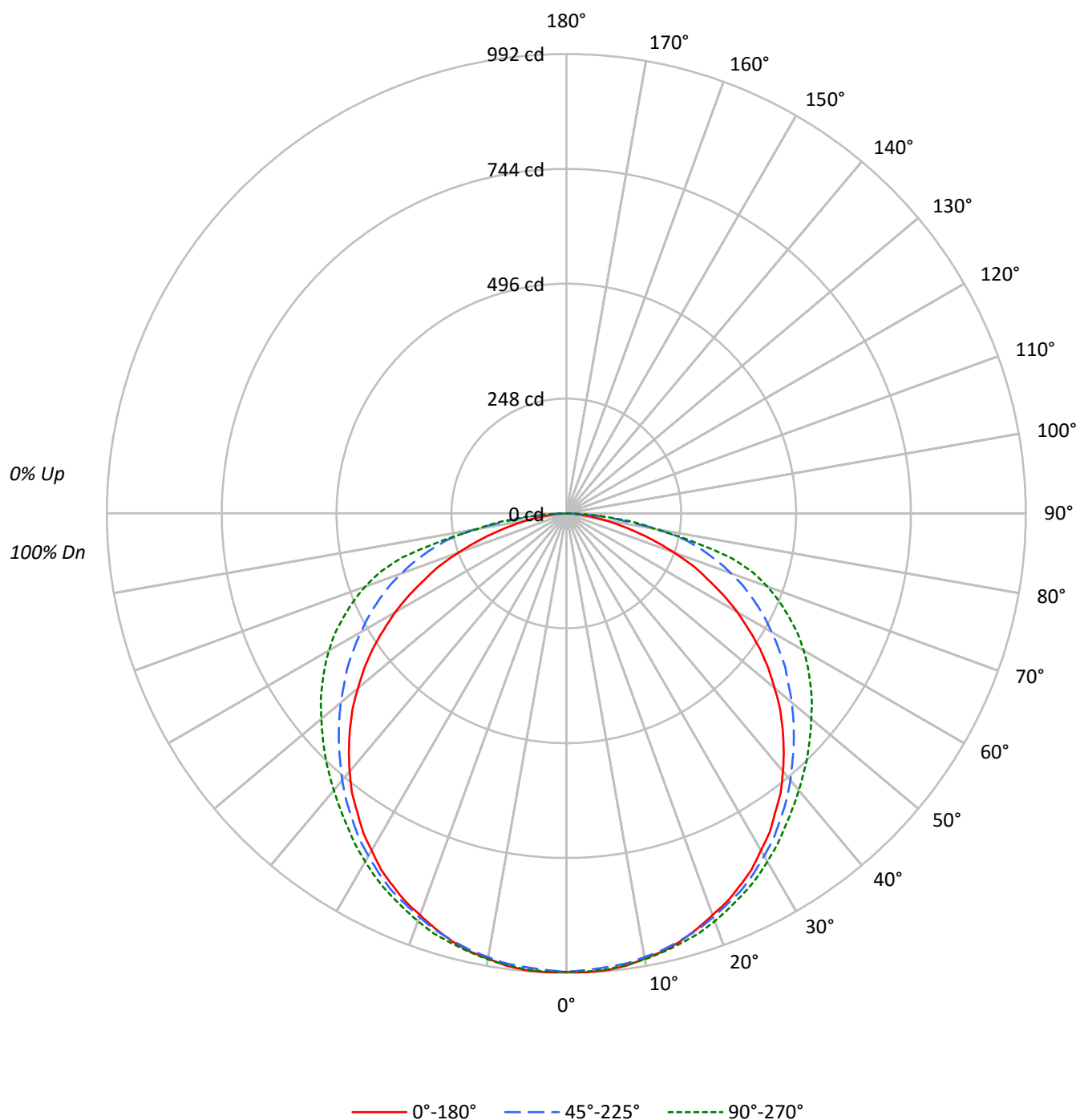
Input Watts (W): 39.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1332	1332	1332
5°	1337	1329	1335
10°	1333	1329	1336
15°	1331	1329	1338
20°	1321	1328	1341
25°	1317	1331	1344
30°	1305	1327	1349
35°	1293	1323	1354
40°	1278	1322	1371
45°	1257	1322	1402
50°	1229	1330	1445
55°	1198	1352	1509
60°	1147	1378	1593
65°	1074	1427	1690
70°	977	1493	1818
75°	828	1575	1900
80°	653	1585	1537
85°	482	1206	1349



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.9	3.0
10°-20°	270.3	8.6
20°-30°	413.3	13.1
30°-40°	505.2	16.0
40°-50°	538.5	17.1
50°-60°	514.9	16.4
60°-70°	436.2	13.9
70°-80°	293.1	9.3
80°-90°	82.7	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°	777.5	24.7
0°-40°	1282.7	40.7
0°-60°	2336.0	74.2
0°-90°	3148.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3148.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	990	990	990	990	990	
5°	990	988	984	988	988	94
15°	956	956	954	962	960	269
25°	887	890	896	904	906	409
35°	787	793	806	821	824	493
45°	660	671	695	724	737	509
55°	511	529	576	622	643	455
65°	337	372	448	508	531	335
75°	159	217	303	354	365	171
85°	31	64	78	84	87	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	990.0	990.0	990.0	990.0	990.0
2.5°	991.5	991.5	986.8	990.0	990.0
5°	990.0	988.4	983.7	988.4	988.4
7.5°	985.3	983.7	980.6	985.3	983.7
10°	975.9	975.9	972.8	977.5	977.5
12.5°	968.1	966.5	965.0	971.2	969.7
15°	955.6	955.6	954.0	961.9	960.3
17.5°	940.0	941.6	943.1	949.4	950.9
20°	922.8	925.9	927.5	936.9	936.9
22.5°	907.2	908.8	911.9	921.3	921.3
25°	886.9	890.0	896.3	904.1	905.6
27.5°	866.6	868.2	876.0	886.9	888.5
30°	840.1	844.7	854.1	866.6	868.2
32.5°	816.6	821.3	832.3	844.7	847.9
35°	787.0	793.2	805.7	821.3	824.4
37.5°	760.4	765.1	780.7	797.9	802.6
40°	727.6	737.0	752.6	772.9	780.7
42.5°	694.8	704.2	722.9	749.5	758.9
45°	660.5	671.4	694.8	724.5	737.0
47.5°	626.1	638.6	665.2	699.5	713.6
50°	587.1	602.7	635.5	674.5	690.2
52.5°	549.6	568.4	604.3	648.0	668.3
55°	510.6	529.3	576.2	621.5	643.3
57.5°	466.9	491.9	543.4	594.9	618.3
60°	426.3	449.7	512.2	568.4	591.8
62.5°	382.6	413.8	480.9	540.3	563.7
65°	337.3	371.6	448.1	507.5	530.9
67.5°	296.7	334.1	415.3	474.7	498.1
70°	248.3	295.1	379.4	438.8	462.2
72.5°	203.0	254.5	342.0	399.7	421.6
75°	159.3	217.0	302.9	354.4	365.4
77.5°	118.7	179.6	262.3	284.2	276.4
80°	84.3	143.7	204.5	193.6	198.3
82.5°	54.7	109.3	126.5	143.7	148.3
85°	31.2	64.0	78.1	84.3	87.4
87.5°	14.1	23.4	31.2	31.2	29.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)