

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: P310196

Luminaire Tested: **24FCZ2-50HE-UNV-L82765-RDP-CP125-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: P310196
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-4000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET
Light Source: (336) 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: 3014.0 lumens
Efficiency: N/A
Efficacy: 77.7 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

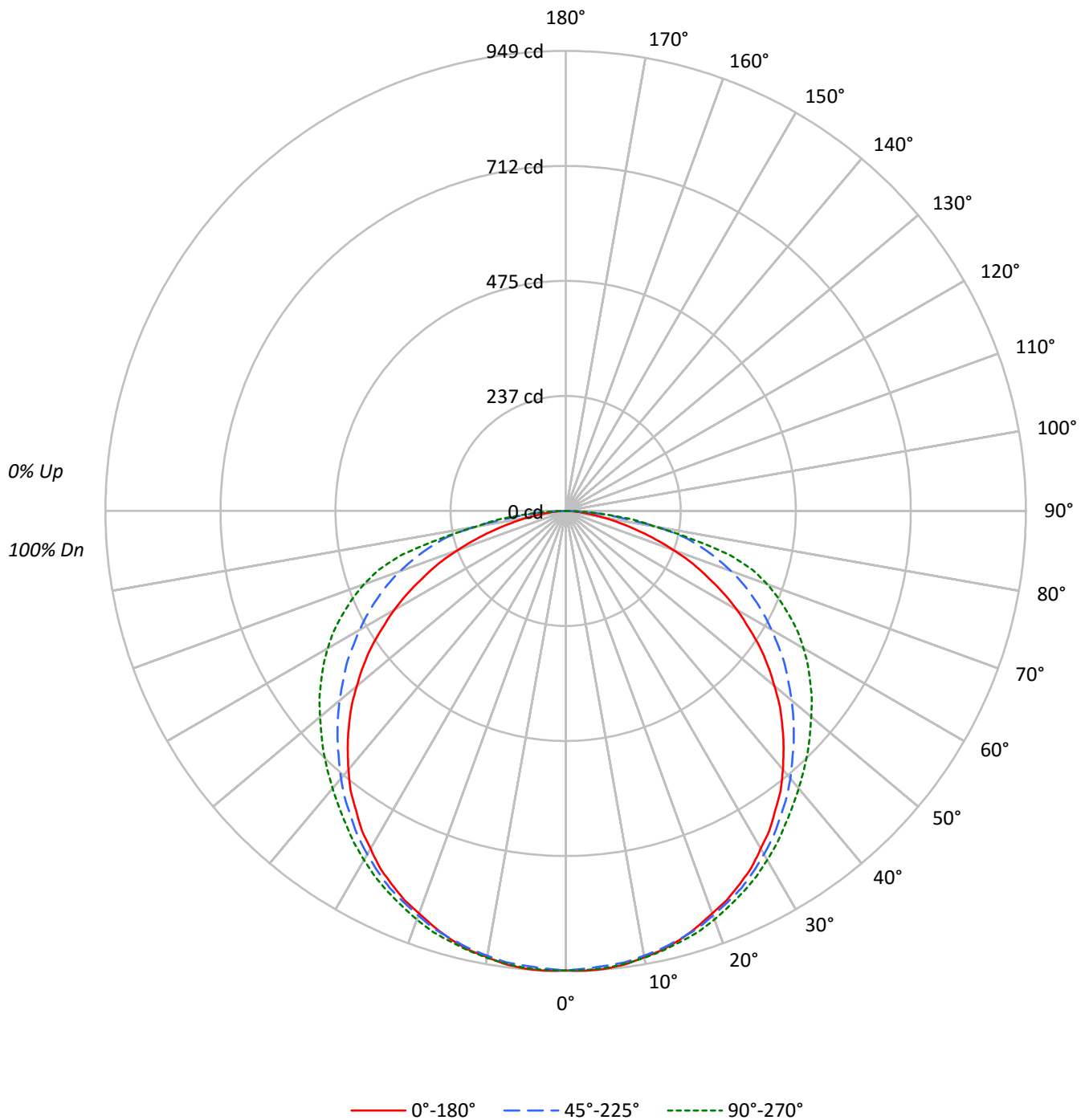
Input Watts (W): 38.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	50	30	10
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°	1275	1275	1275
5°	1280	1272	1278
10°	1277	1273	1279
15°	1274	1272	1281
20°	1265	1271	1284
25°	1261	1274	1287
30°	1250	1271	1291
35°	1238	1267	1296
40°	1224	1266	1313
45°	1203	1266	1343
50°	1177	1274	1383
55°	1147	1294	1445
60°	1098	1320	1525
65°	1028	1366	1618
70°	935	1429	1741
75°	793	1508	1818
80°	625	1517	1471
85°	462	1153	1292



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.9	3.0
10°-20°	258.8	8.6
20°-30°	395.7	13.1
30°-40°	483.7	16.0
40°-50°	515.6	17.1
50°-60°	493.0	16.4
60°-70°	417.6	13.9
70°-80°	280.7	9.3
80°-90°	79.2	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°	744.4	24.7
0°-40°	1228.1	40.7
0°-60°	2236.6	74.2
0°-90°	3014.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3014.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	948	948	948	948	948	
5°	948	946	942	946	946	90
15°	915	915	913	921	919	258
25°	849	852	858	866	867	391
35°	754	759	771	786	789	472
45°	632	643	665	694	706	488
55°	489	507	552	595	616	435
65°	323	356	429	486	508	321
75°	152	208	290	339	350	163
85°	30	61	75	81	84	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	947.8	947.8	947.8	947.8	947.8
2.5°	949.3	949.3	944.8	947.8	947.8
5°	947.8	946.3	941.8	946.3	946.3
7.5°	943.3	941.8	938.8	943.3	941.8
10°	934.4	934.4	931.4	935.9	935.9
12.5°	926.9	925.4	923.9	929.9	928.4
15°	914.9	914.9	913.4	920.9	919.4
17.5°	900.0	901.5	903.0	908.9	910.4
20°	883.5	886.5	888.0	897.0	897.0
22.5°	868.6	870.1	873.1	882.0	882.0
25°	849.1	852.1	858.1	865.6	867.1
27.5°	829.7	831.2	838.7	849.1	850.6
30°	804.3	808.8	817.8	829.7	831.2
32.5°	781.9	786.4	796.8	808.8	811.8
35°	753.5	759.4	771.4	786.4	789.3
37.5°	728.1	732.5	747.5	763.9	768.4
40°	696.7	705.6	720.6	740.0	747.5
42.5°	665.3	674.2	692.2	717.6	726.6
45°	632.4	642.8	665.3	693.7	705.6
47.5°	599.5	611.4	636.9	669.8	683.2
50°	562.1	577.1	608.5	645.8	660.8
52.5°	526.2	544.2	578.6	620.4	639.9
55°	488.9	506.8	551.6	595.0	615.9
57.5°	447.0	470.9	520.3	569.6	592.0
60°	408.1	430.6	490.4	544.2	566.6
62.5°	366.3	396.2	460.5	517.3	539.7
65°	322.9	355.8	429.1	485.9	508.3
67.5°	284.0	319.9	397.7	454.5	476.9
70°	237.7	282.6	363.3	420.1	442.5
72.5°	194.3	243.7	327.4	382.7	403.6
75°	152.5	207.8	290.0	339.4	349.8
77.5°	113.6	171.9	251.2	272.1	264.6
80°	80.7	137.5	195.8	185.4	189.9
82.5°	52.3	104.6	121.1	137.5	142.0
85°	29.9	61.3	74.7	80.7	83.7
87.5°	13.5	22.4	29.9	29.9	28.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)