

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: P313625

Luminaire Tested: **24FCZ2-50HE-UNV-L83050-RDP-CP125-W2A-U-3000K**

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: P313625
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-L83050-RDP-CP125-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET
Light Source: (336) 3000K 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: 2854.0 lumens
Efficiency: N/A
Efficacy: 74.5 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

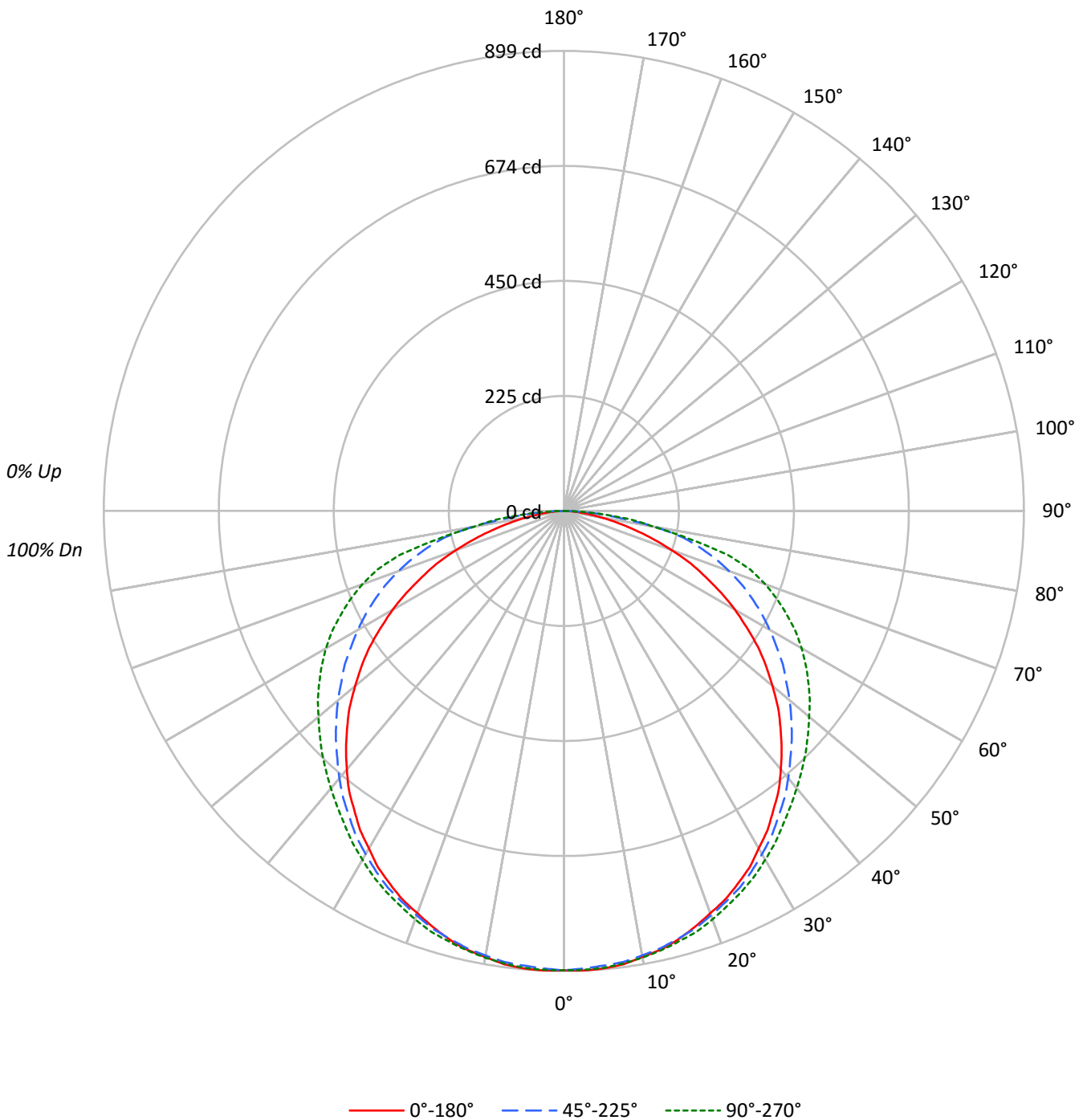
Input Watts (W): 38.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82				82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67				67
3	88	77	68	62	86	76	68	61	72	66	60	70	64	59	67	62	58	56				56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47				47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40				40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35				35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31				31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27				27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24				24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22				22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1208	1208	1208
5°	1212	1204	1210
10°	1209	1205	1211
15°	1207	1205	1213
20°	1198	1204	1216
25°	1194	1206	1219
30°	1183	1203	1223
35°	1172	1200	1228
40°	1159	1198	1243
45°	1139	1199	1271
50°	1114	1206	1310
55°	1086	1225	1368
60°	1040	1249	1444
65°	974	1294	1532
70°	886	1353	1648
75°	751	1428	1722
80°	592	1437	1393
85°	437	1093	1224



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.1	3.0
10°-20°	245.0	8.6
20°-30°	374.7	13.1
30°-40°	458.1	16.0
40°-50°	488.2	17.1
50°-60°	466.8	16.4
60°-70°	395.4	13.9
70°-80°	265.7	9.3
80°-90°	74.9	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°	704.9	24.7
0°-40°	1162.9	40.7
0°-60°	2117.9	74.2
0°-90°	2854.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2854.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	898	898	898	898	898	
5°	898	896	892	896	896	85
15°	866	866	865	872	871	244
25°	804	807	813	820	821	371
35°	714	719	730	745	747	447
45°	599	609	630	657	668	462
55°	463	480	522	563	583	412
65°	306	337	406	460	481	304
75°	144	197	275	321	331	155
85°	28	58	71	76	79	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	897.5	897.5	897.5	897.5	897.5
2.5°	898.9	898.9	894.7	897.5	897.5
5°	897.5	896.1	891.8	896.1	896.1
7.5°	893.3	891.8	889.0	893.3	891.8
10°	884.8	884.8	881.9	886.2	886.2
12.5°	877.7	876.3	874.9	880.5	879.1
15°	866.4	866.4	864.9	872.0	870.6
17.5°	852.2	853.6	855.0	860.7	862.1
20°	836.6	839.5	840.9	849.4	849.4
22.5°	822.5	823.9	826.7	835.2	835.2
25°	804.1	806.9	812.6	819.6	821.1
27.5°	785.7	787.1	794.2	804.1	805.5
30°	761.6	765.8	774.3	785.7	787.1
32.5°	740.4	744.6	754.5	765.8	768.7
35°	713.5	719.1	730.5	744.6	747.4
37.5°	689.4	693.7	707.8	723.4	727.6
40°	659.7	668.2	682.3	700.7	707.8
42.5°	629.9	638.4	655.4	679.5	688.0
45°	598.8	608.7	629.9	656.8	668.2
47.5°	567.7	579.0	603.1	634.2	646.9
50°	532.3	546.4	576.2	611.5	625.7
52.5°	498.3	515.3	547.8	587.5	605.9
55°	462.9	479.9	522.4	563.4	583.2
57.5°	423.3	445.9	492.6	539.4	560.6
60°	386.5	407.7	464.3	515.3	536.5
62.5°	346.8	375.1	436.0	489.8	511.0
65°	305.8	336.9	406.3	460.1	481.3
67.5°	269.0	302.9	376.6	430.3	451.6
70°	225.1	267.6	344.0	397.8	419.0
72.5°	184.0	230.7	310.0	362.4	382.2
75°	144.4	196.8	274.6	321.3	331.3
77.5°	107.6	162.8	237.8	257.6	250.6
80°	76.4	130.2	185.4	175.5	179.8
82.5°	49.5	99.1	114.7	130.2	134.5
85°	28.3	58.0	70.8	76.4	79.3
87.5°	12.7	21.2	28.3	28.3	26.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)