

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: P310214

Luminaire Tested: **24FCZ2-50HE-UNV-L82765-RDP-CP250-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: P310214
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-CP250-W2A-U-4000K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.250" 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: 2863.0 lumens
Efficiency: N/A
Efficacy: 73.8 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

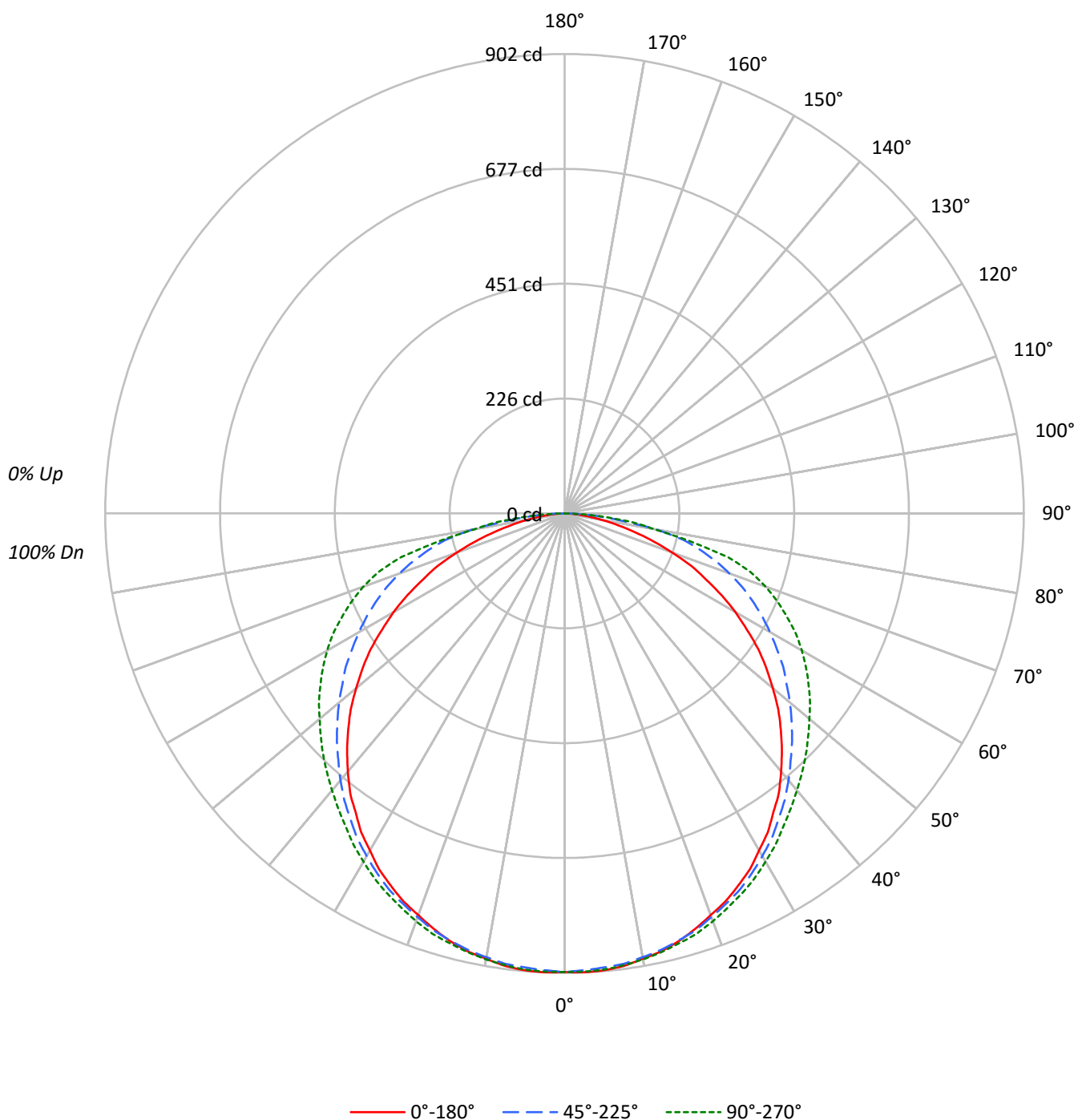
Input Watts (W): 38.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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		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°	1211	1211	1211
5°	1216	1208	1214
10°	1213	1209	1215
15°	1211	1209	1217
20°	1202	1208	1220
25°	1197	1210	1223
30°	1187	1207	1227
35°	1176	1204	1232
40°	1162	1202	1247
45°	1143	1202	1275
50°	1118	1210	1314
55°	1089	1229	1373
60°	1043	1253	1448
65°	976	1298	1537
70°	888	1358	1653
75°	753	1432	1727
80°	594	1441	1398
85°	438	1096	1227



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.4	3.0
10°-20°	245.8	8.6
20°-30°	375.9	13.1
30°-40°	459.5	16.0
40°-50°	489.7	17.1
50°-60°	468.3	16.4
60°-70°	396.7	13.9
70°-80°	266.6	9.3
80°-90°	75.2	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°	707.1	24.7
0°-40°	1166.6	40.7
0°-60°	2124.6	74.2
0°-90°	2863.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2863.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	900	900	900	900	900	
5°	900	899	895	899	899	86
15°	869	869	868	875	873	245
25°	807	809	815	822	824	372
35°	716	721	733	747	750	448
45°	601	611	632	659	670	463
55°	464	481	524	565	585	414
65°	307	338	408	462	483	305
75°	145	197	276	322	332	155
85°	28	58	71	77	80	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	900.3	900.3	900.3	900.3	900.3
2.5°	901.8	901.8	897.5	900.3	900.3
5°	900.3	898.9	894.7	898.9	898.9
7.5°	896.1	894.7	891.8	896.1	894.7
10°	887.6	887.6	884.7	889.0	889.0
12.5°	880.5	879.0	877.6	883.3	881.9
15°	869.1	869.1	867.7	874.8	873.4
17.5°	854.9	856.3	857.7	863.4	864.8
20°	839.3	842.1	843.5	852.0	852.0
22.5°	825.1	826.5	829.3	837.8	837.8
25°	806.6	809.4	815.1	822.2	823.6
27.5°	788.1	789.6	796.7	806.6	808.0
30°	764.0	768.3	776.8	788.1	789.6
32.5°	742.7	747.0	756.9	768.3	771.1
35°	715.7	721.4	732.8	747.0	749.8
37.5°	691.6	695.8	710.0	725.7	729.9
40°	661.8	670.3	684.5	702.9	710.0
42.5°	631.9	640.5	657.5	681.6	690.2
45°	600.7	610.6	631.9	658.9	670.3
47.5°	569.5	580.8	605.0	636.2	649.0
50°	534.0	548.2	578.0	613.5	627.7
52.5°	499.9	516.9	549.6	589.3	607.8
55°	464.4	481.4	524.0	565.2	585.1
57.5°	424.6	447.3	494.2	541.1	562.4
60°	387.7	409.0	465.8	516.9	538.2
62.5°	347.9	376.3	437.4	491.3	512.6
65°	306.7	338.0	407.6	461.5	482.8
67.5°	269.8	303.9	377.7	431.7	453.0
70°	225.8	268.4	345.1	399.0	420.3
72.5°	184.6	231.5	311.0	363.5	383.4
75°	144.8	197.4	275.5	322.4	332.3
77.5°	107.9	163.3	238.6	258.5	251.4
80°	76.7	130.6	186.0	176.1	180.4
82.5°	49.7	99.4	115.0	130.6	134.9
85°	28.4	58.2	71.0	76.7	79.5
87.5°	12.8	21.3	28.4	28.4	27.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)