

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: P307324

Luminaire Tested: **14FCZ2-25-UNV-L82765-RDP-CP187-W2A-U-3500K**

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: P307324
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-43)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-25-UNV-L82765-RDP-CP187-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.187" POLYCARB SHEET
Light Source: (168) 3500K 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: 1375.0 lumens
Efficiency: N/A
Efficacy: 69.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.28 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

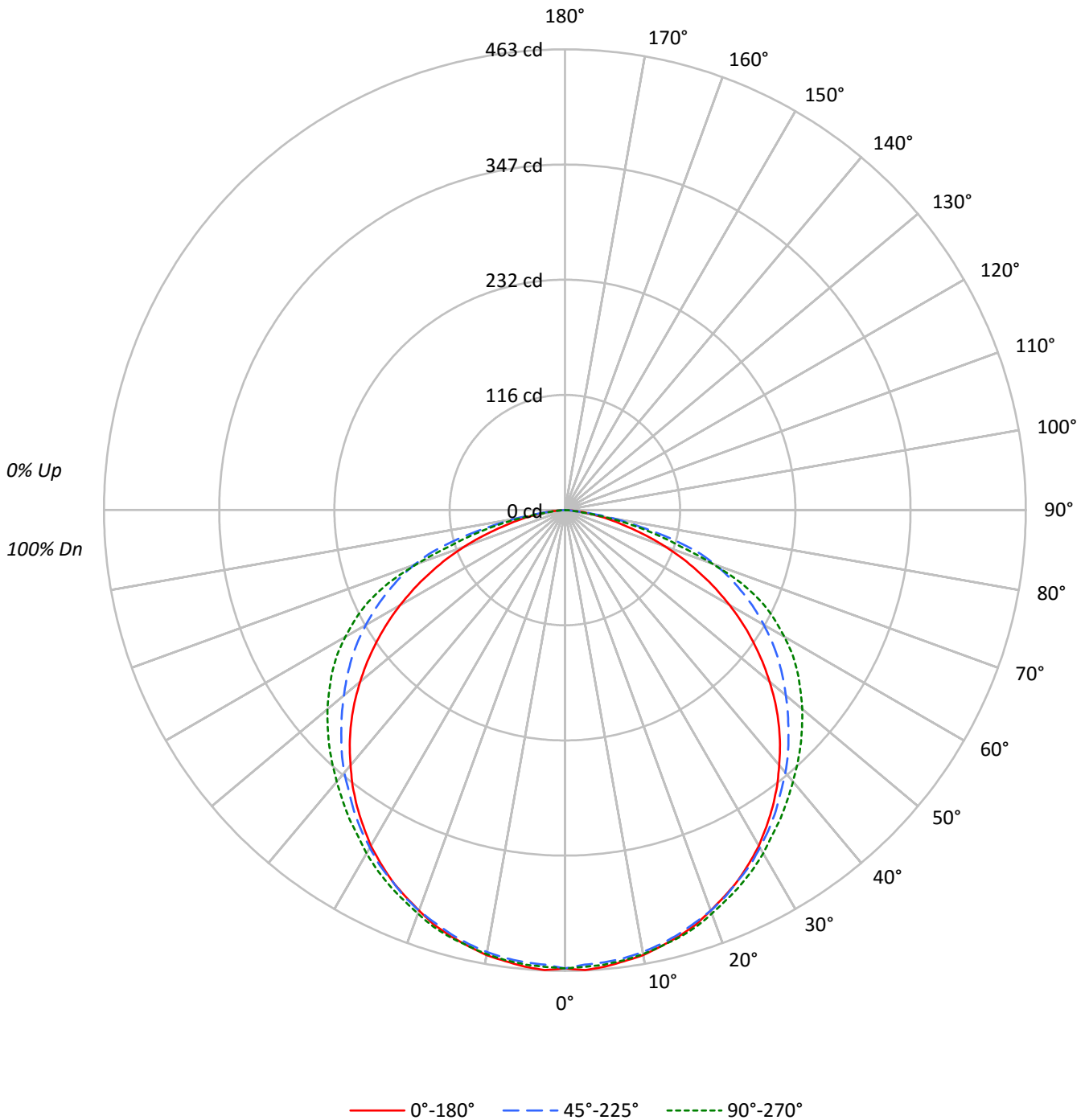
Input Watts (W): 19.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1239	1239	1239
5°	1244	1232	1238
10°	1241	1232	1238
15°	1235	1229	1238
20°	1227	1227	1236
25°	1221	1221	1237
30°	1211	1217	1238
35°	1195	1213	1241
40°	1176	1211	1252
45°	1156	1209	1275
50°	1124	1213	1303
55°	1083	1229	1339
60°	1028	1242	1369
65°	950	1258	1387
70°	844	1267	1242
75°	681	1138	993
80°	533	798	649
85°	364	232	167



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.6	3.2
10°-20°	125.1	9.1
20°-30°	190.4	13.8
30°-40°	231.9	16.9
40°-50°	246.1	17.9
50°-60°	232.2	16.9
60°-70°	187.5	13.6
70°-80°	101.7	7.4
80°-90°	16.5	1.2
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°	359.1	26.1
0°-40°	591.0	43.0
0°-60°	1069.3	77.8
0°-90°	1375.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1375.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	460	460	460	460	460	
5°	460	459	456	459	458	44
15°	443	442	441	444	444	125
25°	411	410	411	415	416	189
35°	364	366	369	377	378	228
45°	304	308	318	330	335	234
55°	231	240	262	279	286	206
65°	149	168	198	214	218	148
75°	66	96	110	99	96	72
85°	12	13	8	6	5	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	460.5	460.5	460.5	460.5	460.5
2.5°	462.7	460.5	457.3	460.5	459.4
5°	460.5	459.4	456.2	459.4	458.4
7.5°	457.3	457.3	454.1	456.2	456.2
10°	454.1	453.0	450.9	454.1	453.0
12.5°	448.7	447.6	446.6	449.8	448.7
15°	443.3	442.3	441.2	444.4	444.4
17.5°	436.9	435.8	434.8	439.1	439.1
20°	428.3	428.3	428.3	432.6	431.5
22.5°	419.7	419.7	420.8	425.1	424.0
25°	411.1	410.1	411.1	415.4	416.5
27.5°	400.4	401.5	402.6	406.8	407.9
30°	389.7	390.7	391.8	397.2	398.3
32.5°	376.8	378.9	381.1	387.5	387.5
35°	363.9	366.1	369.3	376.8	377.9
37.5°	350.0	352.1	356.4	365.0	367.1
40°	334.9	338.1	344.6	353.2	356.4
42.5°	319.9	324.2	331.7	341.4	345.7
45°	303.8	308.1	317.7	329.6	334.9
47.5°	286.6	292.0	303.8	318.8	323.1
50°	268.4	275.9	289.8	305.9	311.3
52.5°	250.1	258.7	275.9	293.1	298.4
55°	230.8	240.5	261.9	279.1	285.5
57.5°	211.5	222.2	246.9	265.1	271.6
60°	191.1	204.0	230.8	249.0	254.4
62.5°	170.7	185.7	214.7	232.9	237.2
65°	149.2	167.5	197.5	213.6	217.9
67.5°	128.8	150.3	180.3	192.2	192.2
70°	107.3	131.0	161.0	164.2	157.8
72.5°	85.9	112.7	139.6	127.7	122.4
75°	65.5	95.5	109.5	98.8	95.5
77.5°	49.4	77.3	77.3	70.8	68.7
80°	34.4	59.0	51.5	45.1	41.9
82.5°	22.5	33.3	26.8	21.5	18.2
85°	11.8	12.9	7.5	6.4	5.4
87.5°	4.3	2.1	1.1	2.1	1.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)