

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: P307504

Luminaire Tested: **14FCZ2-44-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: P307504
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: 14FCZ2-44-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: 2437.0 lumens
Efficiency: N/A
Efficacy: 63.3 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

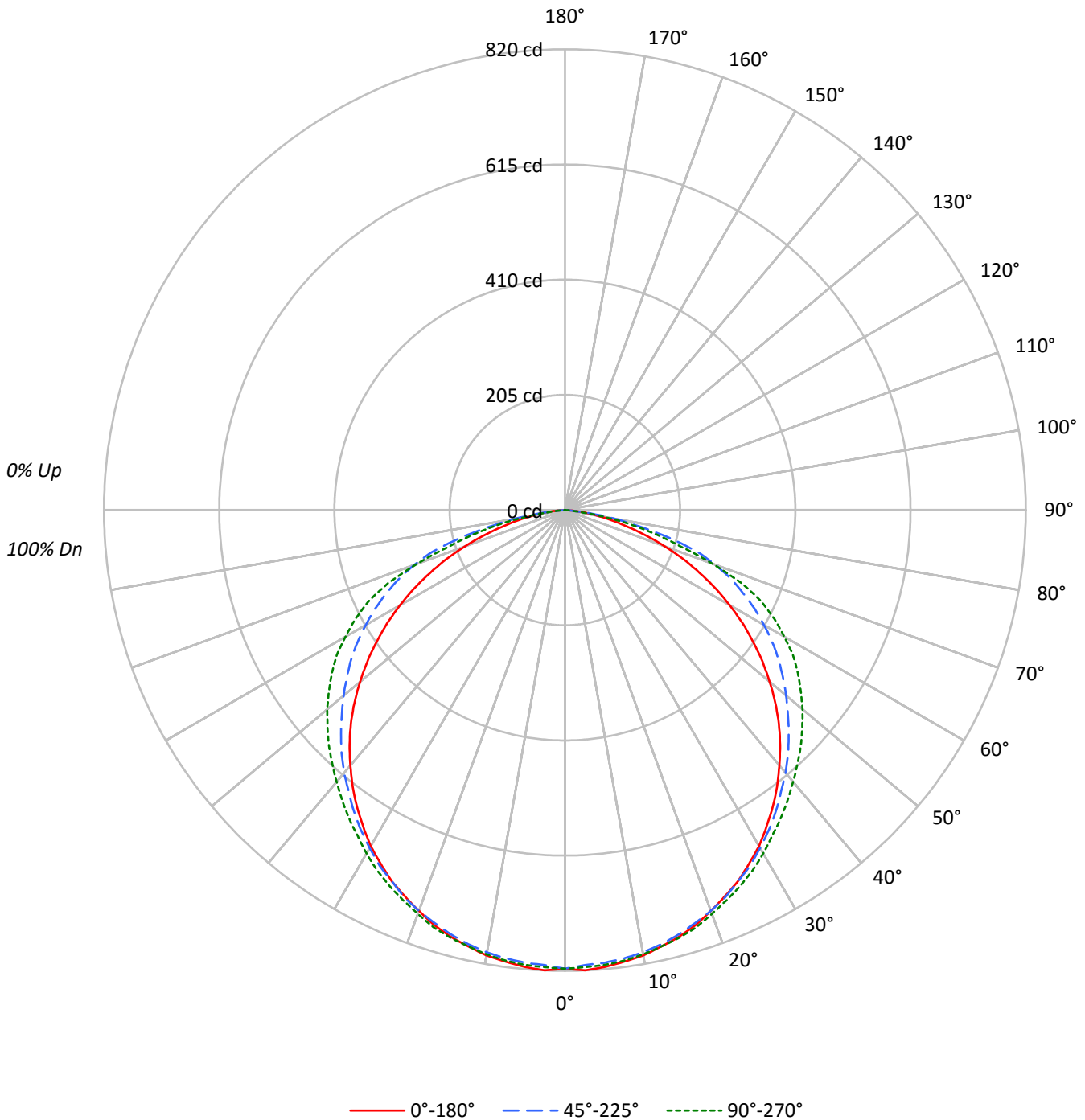
Input Watts (W): 38.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2196	2196	2196
5°	2205	2184	2195
10°	2199	2184	2194
15°	2189	2179	2194
20°	2174	2174	2190
25°	2164	2164	2192
30°	2146	2158	2193
35°	2119	2150	2200
40°	2085	2145	2219
45°	2049	2143	2259
50°	1991	2151	2310
55°	1919	2178	2374
60°	1823	2202	2427
65°	1684	2229	2459
70°	1497	2245	2201
75°	1207	2018	1760
80°	944	1415	1150
85°	645	411	293



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.3	3.2
10°-20°	221.7	9.1
20°-30°	337.5	13.8
30°-40°	411.1	16.9
40°-50°	436.1	17.9
50°-60°	411.6	16.9
60°-70°	332.3	13.6
70°-80°	180.3	7.4
80°-90°	29.2	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°	636.4	26.1
0°-40°	1047.5	43.0
0°-60°	1895.2	77.8
0°-90°	2437.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2437.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	816	816	816	816	816	
5°	816	814	809	814	812	78
15°	786	784	782	788	788	222
25°	729	727	729	736	738	335
35°	645	649	654	668	670	403
45°	538	546	563	584	594	415
55°	409	426	464	495	506	365
65°	264	297	350	379	386	262
75°	116	169	194	175	169	127
85°	21	23	13	11	10	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	816.2	816.2	816.2	816.2	816.2
2.5°	820.0	816.2	810.5	816.2	814.3
5°	816.2	814.3	808.6	814.3	812.4
7.5°	810.5	810.5	804.8	808.6	808.6
10°	804.8	802.9	799.1	804.8	802.9
12.5°	795.3	793.4	791.5	797.2	795.3
15°	785.8	783.9	782.0	787.7	787.7
17.5°	774.4	772.5	770.6	778.2	778.2
20°	759.1	759.1	759.1	766.7	764.8
22.5°	743.9	743.9	745.8	753.4	751.5
25°	728.7	726.8	728.7	736.3	738.2
27.5°	709.7	711.6	713.5	721.1	723.0
30°	690.6	692.5	694.4	704.0	705.9
32.5°	667.8	671.6	675.4	686.8	686.8
35°	645.0	648.8	654.5	667.8	669.7
37.5°	620.2	624.1	631.7	646.9	650.7
40°	593.6	599.3	610.7	626.0	631.7
42.5°	567.0	574.6	587.9	605.0	612.6
45°	538.4	546.0	563.2	584.1	593.6
47.5°	508.0	517.5	538.4	565.1	572.7
50°	475.6	489.0	513.7	542.2	551.8
52.5°	443.3	458.5	489.0	519.4	528.9
55°	409.1	426.2	464.2	494.7	506.1
57.5°	374.8	393.8	437.6	469.9	481.4
60°	338.7	361.5	409.1	441.4	450.9
62.5°	302.5	329.1	380.5	412.9	420.5
65°	264.5	296.8	350.1	378.6	386.2
67.5°	228.3	266.4	319.6	340.6	340.6
70°	190.3	232.1	285.4	291.1	279.7
72.5°	152.2	199.8	247.3	226.4	216.9
75°	116.1	169.3	194.1	175.0	169.3
77.5°	87.5	137.0	137.0	125.6	121.8
80°	60.9	104.6	91.3	79.9	74.2
82.5°	40.0	59.0	47.6	38.1	32.3
85°	20.9	22.8	13.3	11.4	9.5
87.5°	7.6	3.8	1.9	3.8	1.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)