

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: P307865

Luminaire Tested: **14FCZ2-25-UNV-L82765-S-CP187-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: P307865
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)
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-S-CP187-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.187" POLYCARB SHEET
Light Source: (168) 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: 2213.0 lumens
Efficiency: N/A
Efficacy: 111.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

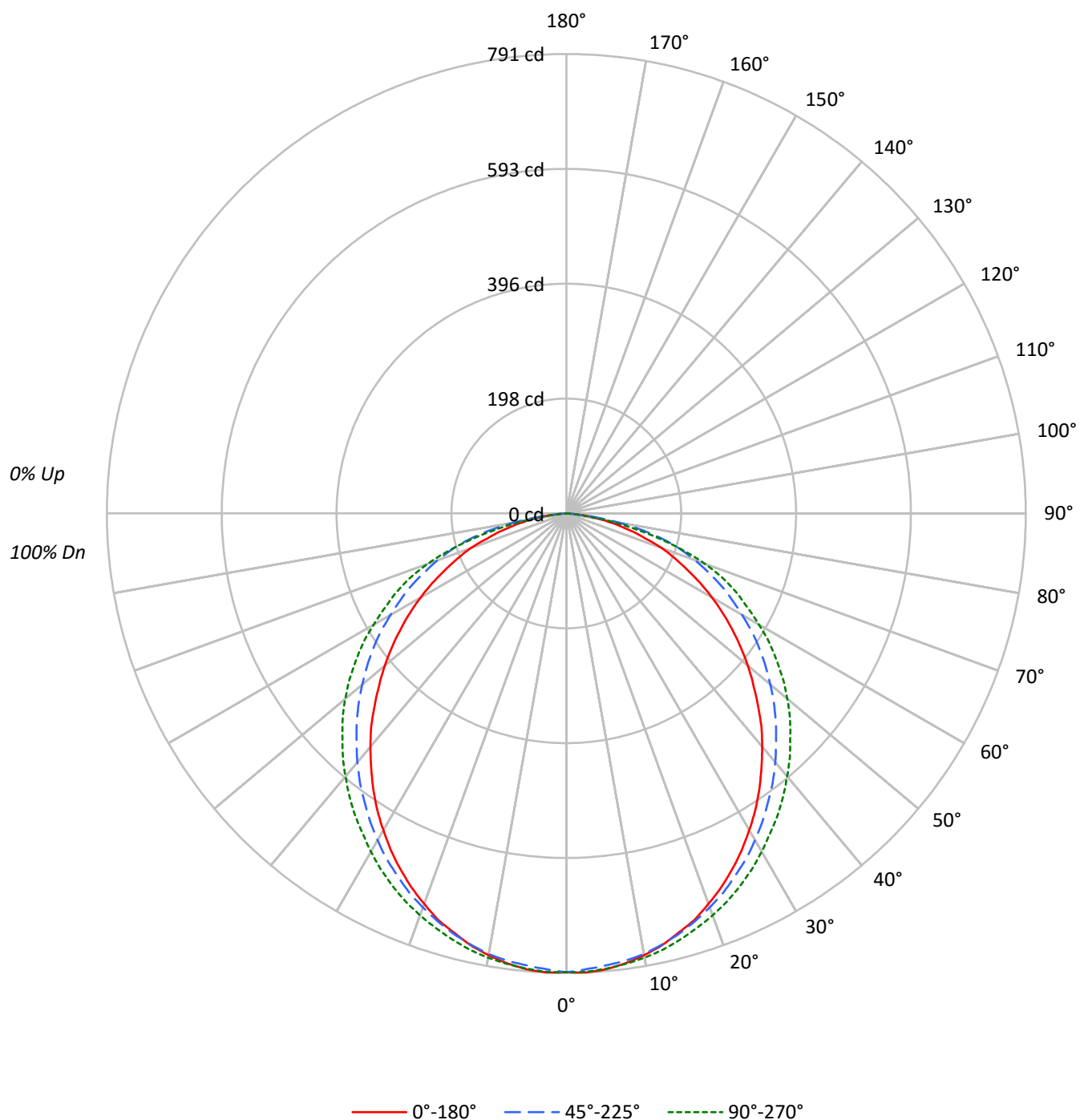
Input Watts (W): 19.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	100	96	106	102	98	94	97	94	91		94	91	89		84
2	99	90	84	78	96	89	82	77	85	80	75		82	77	73		70
3	90	79	71	65	87	78	70	64	75	68	63		72	66	62		58
4	82	70	61	55	80	69	61	54	66	59	53		64	58	53		50
5	76	63	54	47	74	62	53	47	59	52	46		57	51	46		43
6	70	56	47	41	68	55	47	41	54	46	40		52	45	40		38
7	65	51	42	36	63	50	42	36	49	41	36		47	41	35		33
8	60	47	38	32	59	46	38	32	45	37	32		43	37	32		30
9	56	43	35	29	55	42	34	29	41	34	29		40	33	29		27
10	53	40	32	26	52	39	31	26	38	31	26		37	31	26		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2126	2126	2126
5°	2128	2110	2125
10°	2111	2105	2123
15°	2082	2088	2115
20°	2049	2068	2108
25°	2007	2043	2101
30°	1957	2018	2090
35°	1903	1990	2083
40°	1842	1966	2077
45°	1775	1942	2075
50°	1709	1920	2081
55°	1637	1905	2075
60°	1559	1878	2061
65°	1467	1873	2061
70°	1382	1856	2003
75°	1198	1814	1711
80°	969	1463	1139
85°	642	509	340



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.6	3.4
10°-20°	212.3	9.6
20°-30°	318.4	14.4
30°-40°	379.9	17.2
40°-50°	392.7	17.7
50°-60°	358.5	16.2
60°-70°	282.1	12.7
70°-80°	164.3	7.4
80°-90°	30.3	1.4
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°	605.3	27.4
0°-40°	985.2	44.5
0°-60°	1736.4	78.5
0°-90°	2213.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2213.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	790	790	790	790	790	
5°	788	786	781	788	787	75
15°	747	748	749	759	759	211
25°	676	679	688	704	708	311
35°	579	587	606	629	634	362
45°	466	482	510	539	545	360
55°	349	368	406	436	442	312
65°	230	255	294	317	324	229
75°	115	143	174	171	165	122
85°	21	30	16	13	11	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	790.0	790.0	790.0	790.0	790.0
2.5°	791.1	788.9	785.6	791.1	790.0
5°	787.8	785.6	781.2	787.8	786.7
7.5°	781.2	779.0	776.8	783.4	782.3
10°	772.4	771.4	770.3	777.9	776.8
12.5°	761.5	761.5	760.4	769.2	769.2
15°	747.2	748.3	749.4	759.3	759.3
17.5°	734.0	732.9	736.2	747.2	748.3
20°	715.4	717.6	722.0	735.1	736.2
22.5°	696.7	698.9	706.6	719.8	723.1
25°	675.9	679.2	688.0	704.4	707.7
27.5°	653.9	658.3	670.4	688.0	691.3
30°	629.8	636.4	649.6	669.3	672.6
32.5°	605.7	612.3	628.7	648.5	652.9
35°	579.3	587.0	605.7	628.7	634.2
37.5°	551.9	561.8	583.7	606.8	613.4
40°	524.5	535.4	559.6	583.7	591.4
42.5°	497.0	508.0	534.4	561.8	569.5
45°	466.3	481.7	510.2	538.7	545.3
47.5°	436.7	453.2	485.0	513.5	522.3
50°	408.2	424.6	458.6	488.3	497.0
52.5°	378.5	396.1	432.3	463.0	470.7
55°	348.9	367.6	406.0	435.6	442.2
57.5°	319.3	339.0	378.5	407.1	414.8
60°	289.7	310.5	348.9	377.4	382.9
62.5°	260.0	282.0	321.5	346.7	352.2
65°	230.4	254.6	294.1	317.1	323.7
67.5°	201.9	226.0	264.4	286.4	291.9
70°	175.6	197.5	235.9	252.4	254.6
72.5°	142.6	170.1	207.4	216.2	210.7
75°	115.2	142.6	174.5	171.2	164.6
77.5°	87.8	115.2	136.1	125.1	116.3
80°	62.5	90.0	94.4	77.9	73.5
82.5°	40.6	62.5	52.7	40.6	32.9
85°	20.8	29.6	16.5	13.2	11.0
87.5°	6.6	4.4	2.2	2.2	1.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)