

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: P307103

Luminaire Tested: **14FCZ2-29-UNV-L82765-HRP-CP187-W2A-U-5500K**

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: P307103
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-18)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-29-UNV-L82765-HRP-CP187-W2A-U-5500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.187"
POLYCARB SHEET
Light Source: (168) 5500K 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: 2068.0 lumens
Efficiency: N/A
Efficacy: 84.4 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

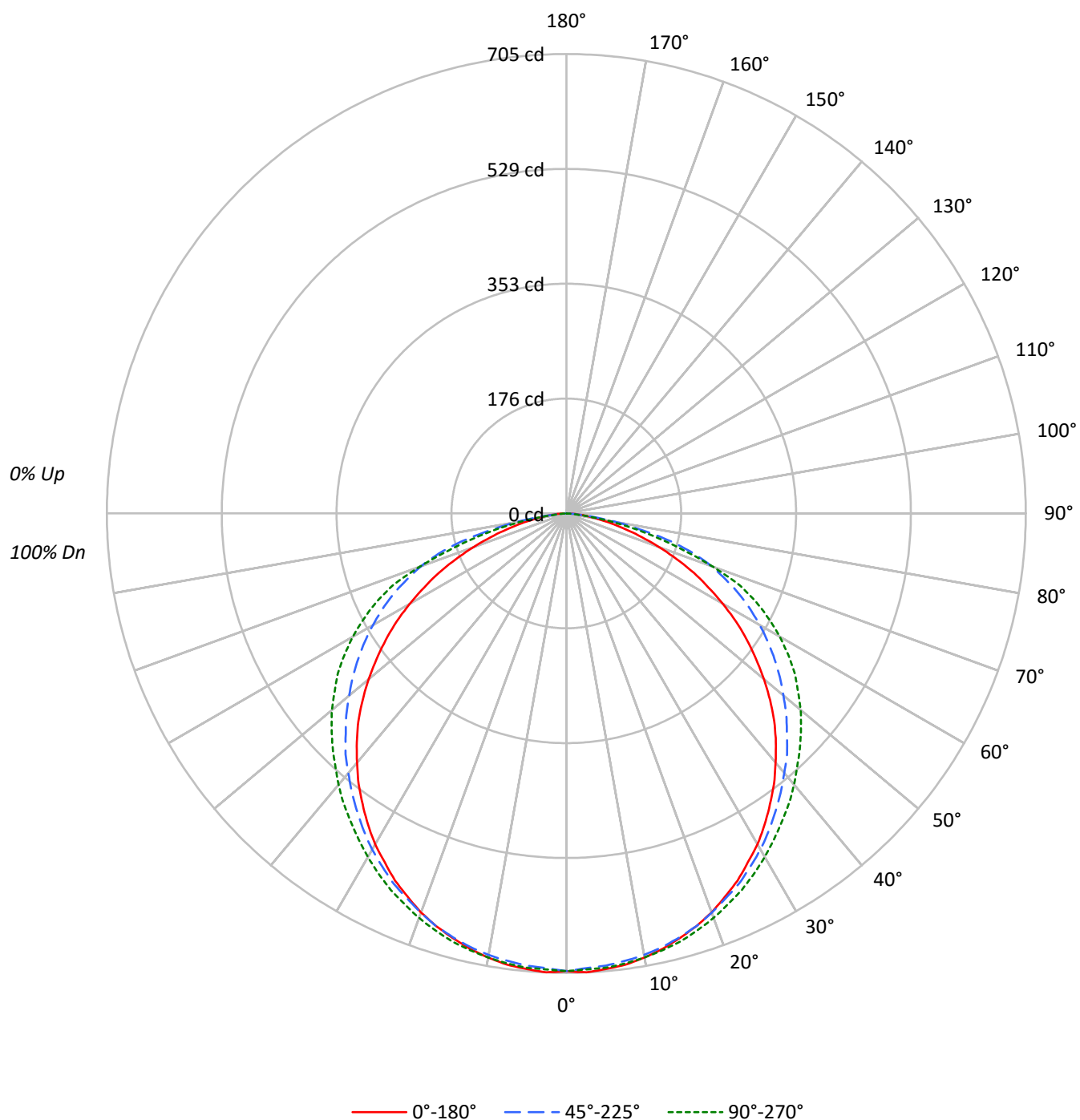
Input Watts (W): 24.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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		93	91	88		84
2	99	90	83	78	96	88	82	77	85	79	75		82	77	73		69
3	90	79	71	64	87	77	70	64	74	68	62		72	66	61		58
4	82	70	61	54	80	68	60	54	66	59	53		64	57	52		49
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		42
6	69	56	47	40	68	55	46	40	53	45	40		51	45	39		37
7	64	51	42	36	63	50	41	35	48	41	35		47	40	35		33
8	60	46	38	32	58	45	37	32	44	37	31		43	36	31		29
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		26
10	52	39	31	26	51	38	31	26	37	30	26		37	30	25		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1890	1890	1890
5°	1895	1881	1890
10°	1891	1880	1891
15°	1879	1875	1893
20°	1866	1868	1892
25°	1846	1861	1892
30°	1823	1851	1891
35°	1790	1837	1895
40°	1754	1827	1910
45°	1717	1821	1930
50°	1658	1821	1966
55°	1586	1831	2008
60°	1491	1844	2033
65°	1375	1863	2045
70°	1197	1868	1883
75°	987	1737	1521
80°	776	1249	1018
85°	602	482	241



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.5	3.2
10°-20°	190.8	9.2
20°-30°	289.7	14.0
30°-40°	351.0	17.0
40°-50°	369.9	17.9
50°-60°	345.4	16.7
60°-70°	276.0	13.3
70°-80°	151.9	7.3
80°-90°	26.8	1.3
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°	547.0	26.5
0°-40°	898.1	43.4
0°-60°	1613.3	78.0
0°-90°	2068.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2068.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	702	702	702	702	702	
5°	702	700	696	701	700	67
15°	674	674	673	680	680	190
25°	622	623	627	636	637	286
35°	545	550	559	574	577	341
45°	451	460	479	500	507	347
55°	338	355	390	418	428	302
65°	216	243	293	317	321	213
75°	95	136	167	150	146	102
85°	20	25	16	10	8	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	702.3	702.3	702.3	702.3	702.3
2.5°	704.9	703.0	698.4	702.3	700.4
5°	701.7	699.7	696.5	701.0	699.7
7.5°	698.4	695.8	692.5	697.8	696.5
10°	691.9	689.9	688.0	692.5	691.9
12.5°	684.1	683.4	681.5	686.7	686.0
15°	674.3	674.3	673.0	679.5	679.5
17.5°	663.9	663.3	663.9	671.1	670.4
20°	651.6	651.6	652.2	660.7	660.7
22.5°	636.6	637.3	639.2	649.6	649.0
25°	621.7	623.0	626.9	636.0	637.3
27.5°	603.5	606.7	611.3	622.3	623.6
30°	586.6	588.5	595.7	606.1	608.7
32.5°	566.4	570.3	578.1	589.8	593.1
35°	544.9	550.1	559.2	573.5	576.8
37.5°	523.5	528.0	540.4	555.3	561.2
40°	499.4	507.2	520.2	537.1	543.6
42.5°	476.0	483.8	501.4	518.9	524.8
45°	451.3	459.7	478.6	500.1	507.2
47.5°	424.0	433.7	457.8	480.6	488.4
50°	396.0	408.4	435.0	460.4	469.5
52.5°	366.8	382.4	412.9	439.6	448.0
55°	338.1	355.1	390.2	417.5	427.9
57.5°	308.9	327.1	366.8	398.0	403.8
60°	277.0	299.1	342.7	370.0	377.8
62.5°	245.8	271.2	318.0	344.0	350.5
65°	215.9	243.2	292.6	316.7	321.2
67.5°	183.4	215.9	264.7	286.8	288.1
70°	152.2	189.9	237.4	247.8	239.3
72.5°	121.6	161.9	205.5	197.0	189.9
75°	94.9	135.9	167.1	150.2	146.3
77.5°	70.2	111.2	119.7	110.5	103.4
80°	50.1	87.8	80.6	68.9	65.7
82.5°	34.5	55.3	44.2	34.5	29.9
85°	19.5	24.7	15.6	9.8	7.8
87.5°	8.5	5.9	3.3	2.6	2.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)