

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: P310657

Luminaire Tested: **24FCZ2-35-UNV-L82765-CP187-W2A-U-5000K**

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: P310657
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-15)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-35-UNV-L82765-CP187-W2A-U-5000K
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.187" POLYCARB SHEET
Light Source: (168) 5000K 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: 3133.0 lumens
Efficiency: N/A
Efficacy: 109.2 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

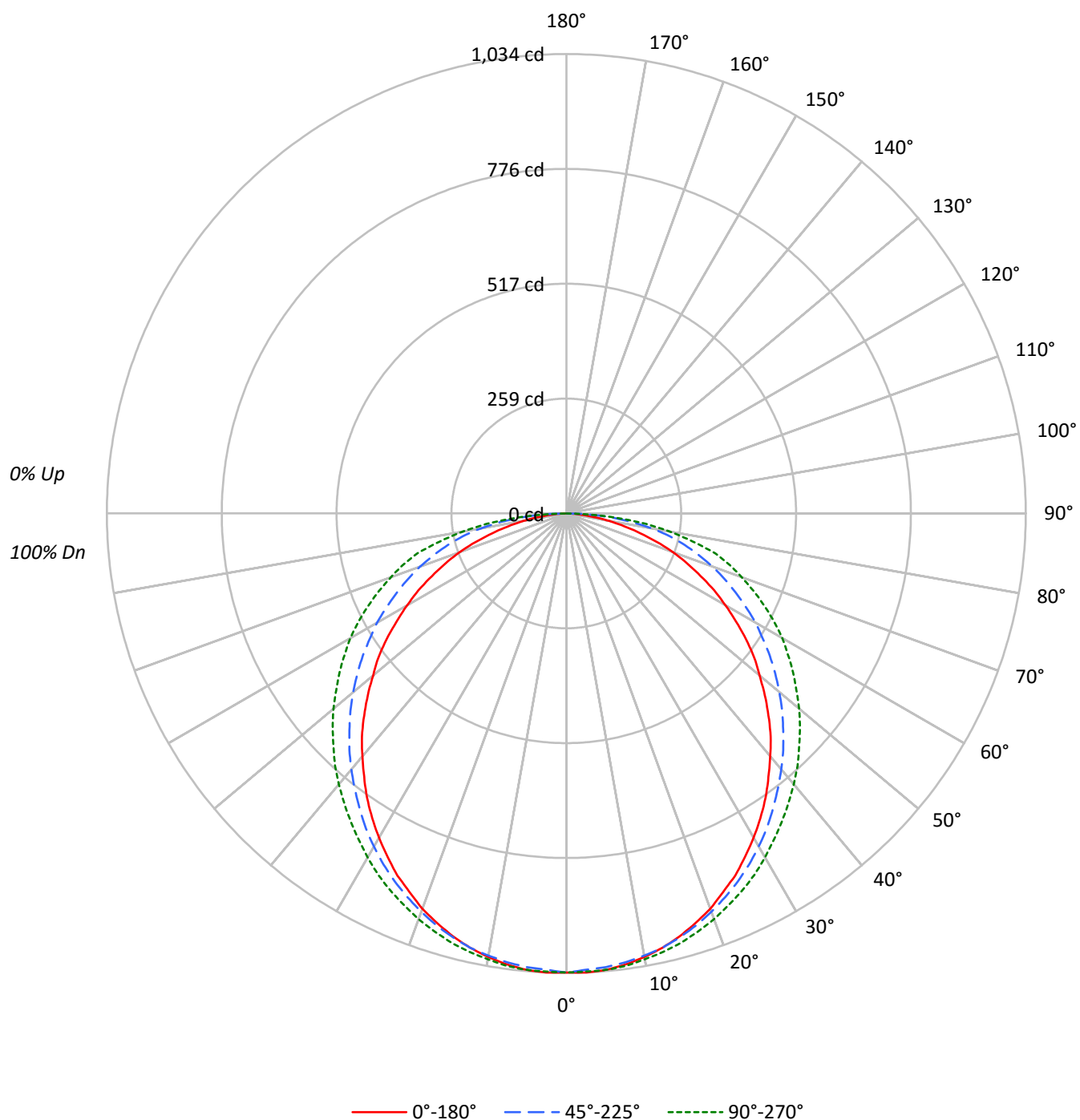
Input Watts (W): 28.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	108	103	98	94	105	100	96	92	96	92	89	92	89	87	88	86	84	82		
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67		
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56		
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47		
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41		
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36		
7	64	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31		
8	59	45	37	31	57	45	36	30	43	36	30	42	35	30	41	34	30	28		
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25		
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1390	1390	1390
5°	1393	1384	1393
10°	1385	1380	1392
15°	1373	1376	1393
20°	1356	1366	1392
25°	1335	1356	1390
30°	1310	1345	1389
35°	1284	1332	1390
40°	1254	1322	1398
45°	1224	1313	1410
50°	1188	1310	1432
55°	1158	1312	1460
60°	1113	1323	1510
65°	1062	1337	1565
70°	1006	1378	1652
75°	897	1437	1805
80°	765	1523	1844
85°	545	1508	1765



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.8	3.1
10°-20°	279.6	8.9
20°-30°	422.3	13.5
30°-40°	509.0	16.2
40°-50°	534.3	17.1
50°-60°	499.9	16.0
60°-70°	412.8	13.2
70°-80°	281.3	9.0
80°-90°	95.9	3.1
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°	799.7	25.5
0°-40°	1308.7	41.8
0°-60°	2342.9	74.8
0°-90°	3133.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3133.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1033	1033	1033	1033	1033	
5°	1031	1030	1025	1031	1031	98
15°	985	986	988	998	1000	278
25°	899	903	914	931	937	414
35°	782	790	811	838	846	488
45°	643	657	690	728	741	496
55°	494	514	559	605	623	441
65°	334	362	420	473	492	331
75°	173	212	276	328	347	184
85°	35	70	98	110	114	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1033.2	1033.2	1033.2	1033.2	1033.2
2.5°	1034.3	1033.2	1028.0	1033.2	1032.2
5°	1031.2	1030.1	1024.9	1031.2	1031.2
7.5°	1023.9	1023.9	1018.7	1026.0	1027.0
10°	1013.5	1013.5	1010.4	1018.7	1018.7
12.5°	1001.0	1001.0	1001.0	1009.3	1010.4
15°	985.4	986.5	987.5	997.9	1000.0
17.5°	966.7	968.8	971.9	984.4	986.5
20°	947.0	949.0	954.2	968.8	971.9
22.5°	922.0	927.2	934.5	951.1	954.2
25°	899.1	903.3	913.7	931.4	936.6
27.5°	871.1	877.3	890.8	909.5	916.8
30°	843.0	849.2	865.9	887.7	893.9
32.5°	812.9	822.2	839.9	862.8	870.0
35°	781.7	790.0	810.8	837.8	846.1
37.5°	747.4	758.8	781.7	810.8	821.2
40°	714.1	726.6	752.6	783.8	796.2
42.5°	680.9	693.3	722.4	757.8	770.2
45°	643.4	656.9	690.2	727.6	741.1
47.5°	606.0	622.6	659.0	698.5	713.1
50°	567.6	586.3	625.8	667.3	684.0
52.5°	533.2	550.9	592.5	637.2	652.8
55°	493.7	513.5	559.2	605.0	622.6
57.5°	453.2	475.0	523.9	573.8	591.5
60°	413.7	437.6	491.7	541.6	561.3
62.5°	375.2	399.2	455.3	507.3	527.0
65°	333.7	361.7	419.9	473.0	491.7
67.5°	294.2	324.3	385.6	437.6	456.3
70°	255.7	284.8	350.3	401.2	419.9
72.5°	214.1	247.4	312.9	365.9	385.6
75°	172.6	212.1	276.5	328.5	347.2
77.5°	134.1	174.6	239.1	281.7	291.1
80°	98.7	140.3	196.5	226.6	238.0
82.5°	63.4	105.0	149.7	171.5	180.9
85°	35.3	69.6	97.7	110.2	114.3
87.5°	14.6	30.1	39.5	44.7	44.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)