

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: P308005

Luminaire Tested: **14FCZ2-39-UNV-L82765-S-CP187-W2A-U-6500K**

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: P308005
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: 14FCZ2-39-UNV-L82765-S-CP187-W2A-U-6500K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.187" POLYCARB SHEET
Light Source: (168) 6500K 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: 3675.0 lumens
Efficiency: N/A
Efficacy: 105.6 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

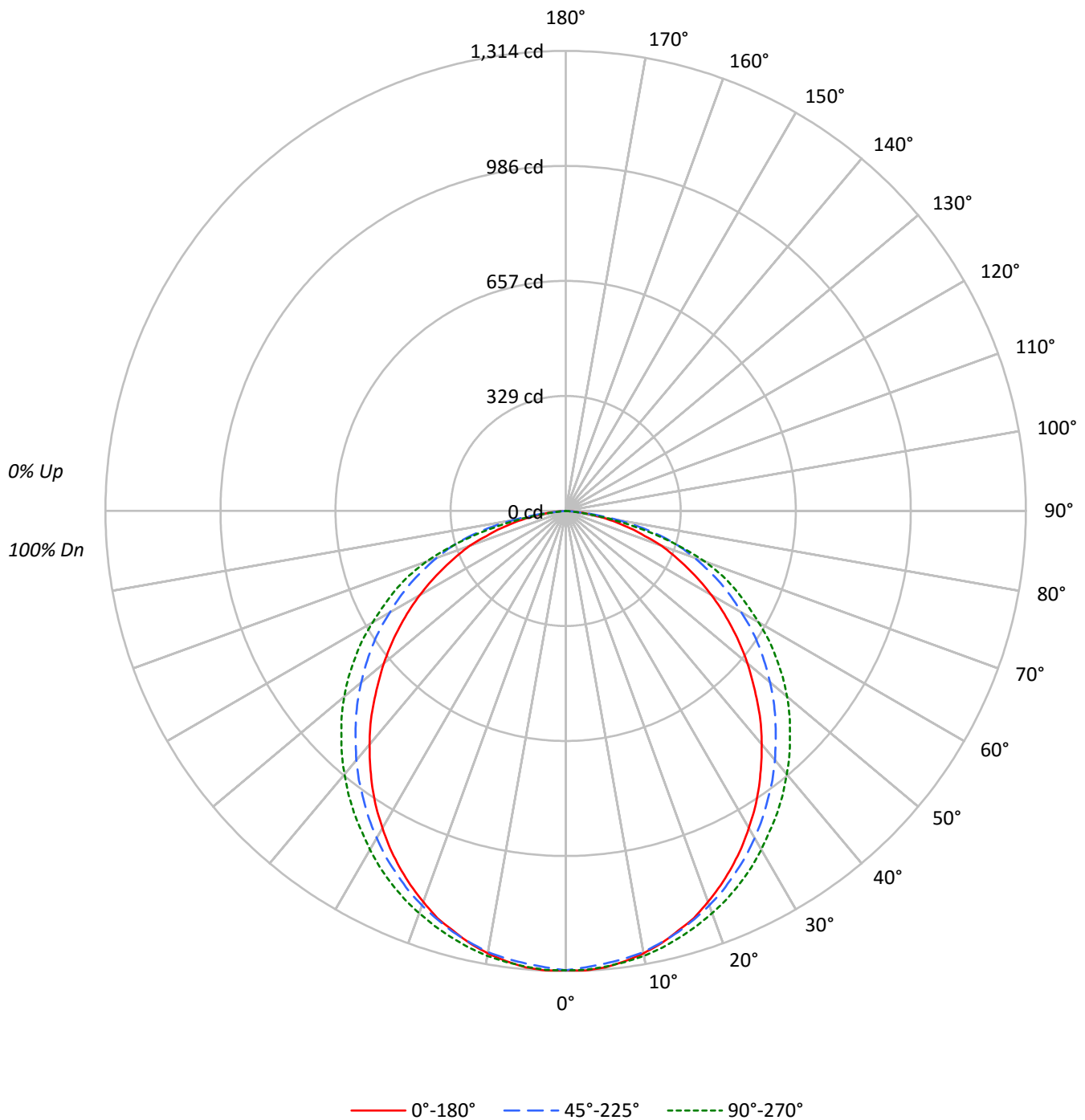
Input Watts (W): 34.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3530	3530	3530
5°	3534	3504	3529
10°	3505	3495	3525
15°	3457	3467	3513
20°	3402	3433	3501
25°	3333	3392	3490
30°	3250	3352	3471
35°	3161	3304	3460
40°	3060	3264	3450
45°	2947	3225	3446
50°	2838	3188	3455
55°	2718	3163	3445
60°	2589	3118	3422
65°	2436	3109	3422
70°	2293	3083	3326
75°	1989	3012	2842
80°	1610	2428	1892
85°	1068	843	562



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.9	3.4
10°-20°	352.5	9.6
20°-30°	528.8	14.4
30°-40°	630.8	17.2
40°-50°	652.1	17.7
50°-60°	595.4	16.2
60°-70°	468.5	12.7
70°-80°	272.7	7.4
80°-90°	50.2	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°	1005.2	27.4
0°-40°	1636.0	44.5
0°-60°	2883.5	78.5
0°-90°	3675.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3675.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1312	1312	1312	1312	1312	
5°	1308	1305	1297	1308	1306	124
15°	1241	1243	1244	1261	1261	350
25°	1122	1128	1142	1170	1175	517
35°	962	975	1006	1044	1053	601
45°	774	800	847	895	906	598
55°	579	610	674	723	734	518
65°	383	423	488	527	538	380
75°	191	237	290	284	273	203
85°	35	49	27	22	18	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1311.9	1311.9	1311.9	1311.9	1311.9
2.5°	1313.7	1310.1	1304.6	1313.7	1311.9
5°	1308.3	1304.6	1297.3	1308.3	1306.4
7.5°	1297.3	1293.7	1290.0	1301.0	1299.2
10°	1282.8	1280.9	1279.1	1291.9	1290.0
12.5°	1264.5	1264.5	1262.7	1277.3	1277.3
15°	1240.9	1242.7	1244.5	1260.9	1260.9
17.5°	1219.0	1217.2	1222.6	1240.9	1242.7
20°	1188.0	1191.7	1198.9	1220.8	1222.6
22.5°	1157.0	1160.7	1173.4	1195.3	1200.8
25°	1122.4	1127.9	1142.5	1169.8	1175.3
27.5°	1086.0	1093.3	1113.3	1142.5	1147.9
30°	1045.9	1056.8	1078.7	1111.5	1116.9
32.5°	1005.8	1016.7	1044.1	1076.9	1084.2
35°	962.1	974.8	1005.8	1044.1	1053.2
37.5°	916.5	932.9	969.4	1007.6	1018.6
40°	871.0	889.2	929.3	969.4	982.1
42.5°	825.4	843.6	887.4	932.9	945.7
45°	774.4	799.9	847.3	894.7	905.6
47.5°	725.2	752.5	805.4	852.7	867.3
50°	677.8	705.2	761.6	810.8	825.4
52.5°	628.6	657.8	717.9	768.9	781.7
55°	579.4	610.4	674.2	723.4	734.3
57.5°	530.2	563.0	628.6	676.0	688.8
60°	481.0	515.7	579.4	626.8	635.9
62.5°	431.8	468.3	533.9	575.8	584.9
65°	382.6	422.7	488.3	526.6	537.5
67.5°	335.3	375.4	439.1	475.6	484.7
70°	291.5	328.0	391.8	419.1	422.7
72.5°	236.9	282.4	344.4	359.0	349.8
75°	191.3	236.9	289.7	284.2	273.3
77.5°	145.8	191.3	225.9	207.7	193.1
80°	103.9	149.4	156.7	129.4	122.1
82.5°	67.4	103.9	87.5	67.4	54.7
85°	34.6	49.2	27.3	21.9	18.2
87.5°	10.9	7.3	3.6	3.6	1.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)