

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: P310299

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-RDP-CP187-W2A-U-5700K**

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: P310299
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-55HE-UNV-L82765-RDP-CP187-W2A-U-5700K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.187" POLYCARB SHEET
Light Source: (336) 5700K 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: 3329.0 lumens
Efficiency: N/A
Efficacy: 75.1 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

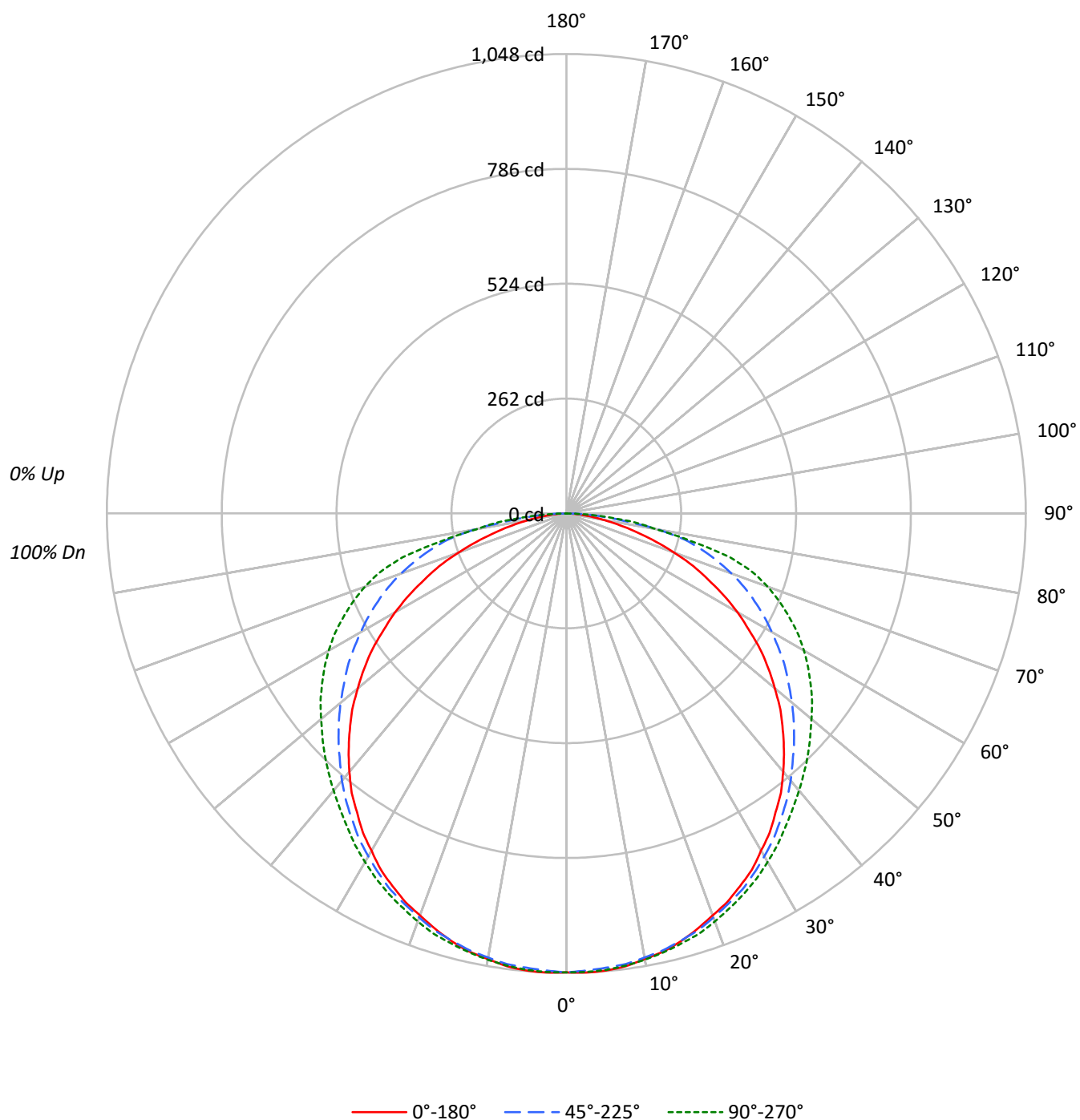
Input Watts (W): 44.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	98	94	105	100	96	92	96	93	89		92	89	87		82
2	97	89	81	75	95	87	80	74	83	77	72		80	75	71		67
3	88	77	68	62	86	76	67	61	72	66	60		70	64	59		56
4	81	68	59	52	78	67	58	51	64	57	51		62	55	50		47
5	74	60	51	44	72	59	51	44	57	49	43		55	48	43		40
6	68	54	45	38	66	53	45	38	51	44	38		50	43	37		35
7	63	49	40	34	61	48	40	34	47	39	33		45	38	33		31
8	59	45	36	30	57	44	36	30	43	35	30		41	34	29		27
9	55	41	33	27	53	40	32	27	39	32	27		38	31	26		24
10	51	38	30	24	50	37	29	24	36	29	24		35	29	24		22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1409	1409	1409
5°	1414	1405	1412
10°	1410	1405	1412
15°	1408	1405	1415
20°	1397	1404	1419
25°	1392	1407	1422
30°	1380	1403	1426
35°	1367	1399	1432
40°	1352	1398	1450
45°	1329	1398	1483
50°	1300	1407	1528
55°	1266	1429	1596
60°	1213	1457	1684
65°	1136	1509	1787
70°	1033	1578	1923
75°	875	1665	2009
80°	691	1676	1625
85°	509	1275	1428



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.3	3.0
10°-20°	285.8	8.6
20°-30°	437.0	13.1
30°-40°	534.3	16.0
40°-50°	569.4	17.1
50°-60°	544.5	16.4
60°-70°	461.2	13.9
70°-80°	310.0	9.3
80°-90°	87.4	2.6
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°	822.2	24.7
0°-40°	1356.4	40.7
0°-60°	2470.3	74.2
0°-90°	3329.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3329.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1047	1047	1047	1047	1047	
5°	1047	1045	1040	1045	1045	99
15°	1010	1010	1009	1017	1016	285
25°	938	941	948	956	958	432
35°	832	839	852	868	872	521
45°	698	710	735	766	779	539
55°	540	560	609	657	680	481
65°	357	393	474	537	561	354
75°	168	230	320	375	386	180
85°	33	68	83	89	92	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1046.9	1046.9	1046.9	1046.9	1046.9
2.5°	1048.5	1048.5	1043.6	1046.9	1046.9
5°	1046.9	1045.2	1040.3	1045.2	1045.2
7.5°	1041.9	1040.3	1037.0	1041.9	1040.3
10°	1032.0	1032.0	1028.7	1033.7	1033.7
12.5°	1023.8	1022.1	1020.5	1027.1	1025.4
15°	1010.5	1010.5	1008.9	1017.2	1015.5
17.5°	994.0	995.7	997.3	1003.9	1005.6
20°	975.9	979.2	980.8	990.7	990.7
22.5°	959.4	961.0	964.3	974.2	974.2
25°	937.9	941.2	947.8	956.1	957.7
27.5°	916.4	918.1	926.3	937.9	939.5
30°	888.4	893.3	903.2	916.4	918.1
32.5°	863.6	868.5	880.1	893.3	896.6
35°	832.2	838.8	852.0	868.5	871.8
37.5°	804.1	809.1	825.6	843.8	848.7
40°	769.5	779.4	795.9	817.4	825.6
42.5°	734.8	744.7	764.5	792.6	802.5
45°	698.5	710.0	734.8	766.2	779.4
47.5°	662.1	675.4	703.4	739.7	754.6
50°	620.9	637.4	672.0	713.3	729.8
52.5°	581.2	601.0	639.0	685.3	706.7
55°	539.9	559.8	609.3	657.2	680.3
57.5°	493.7	520.1	574.6	629.1	653.9
60°	450.8	475.6	541.6	601.0	625.8
62.5°	404.5	437.6	508.6	571.3	596.1
65°	356.7	393.0	473.9	536.6	561.4
67.5°	313.7	353.4	439.2	502.0	526.7
70°	262.5	312.1	401.2	464.0	488.8
72.5°	214.7	269.1	361.6	422.7	445.8
75°	168.4	229.5	320.3	374.8	386.4
77.5°	125.5	189.9	277.4	300.5	292.3
80°	89.2	151.9	216.3	204.8	209.7
82.5°	57.8	115.6	133.7	151.9	156.9
85°	33.0	67.7	82.6	89.2	92.5
87.5°	14.9	24.8	33.0	33.0	31.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)