

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: P310298

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-RDP-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: P310298
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-5500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.187" POLYCARB SHEET
Light Source: (336) 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: 3321.0 lumens
Efficiency: N/A
Efficacy: 75.0 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

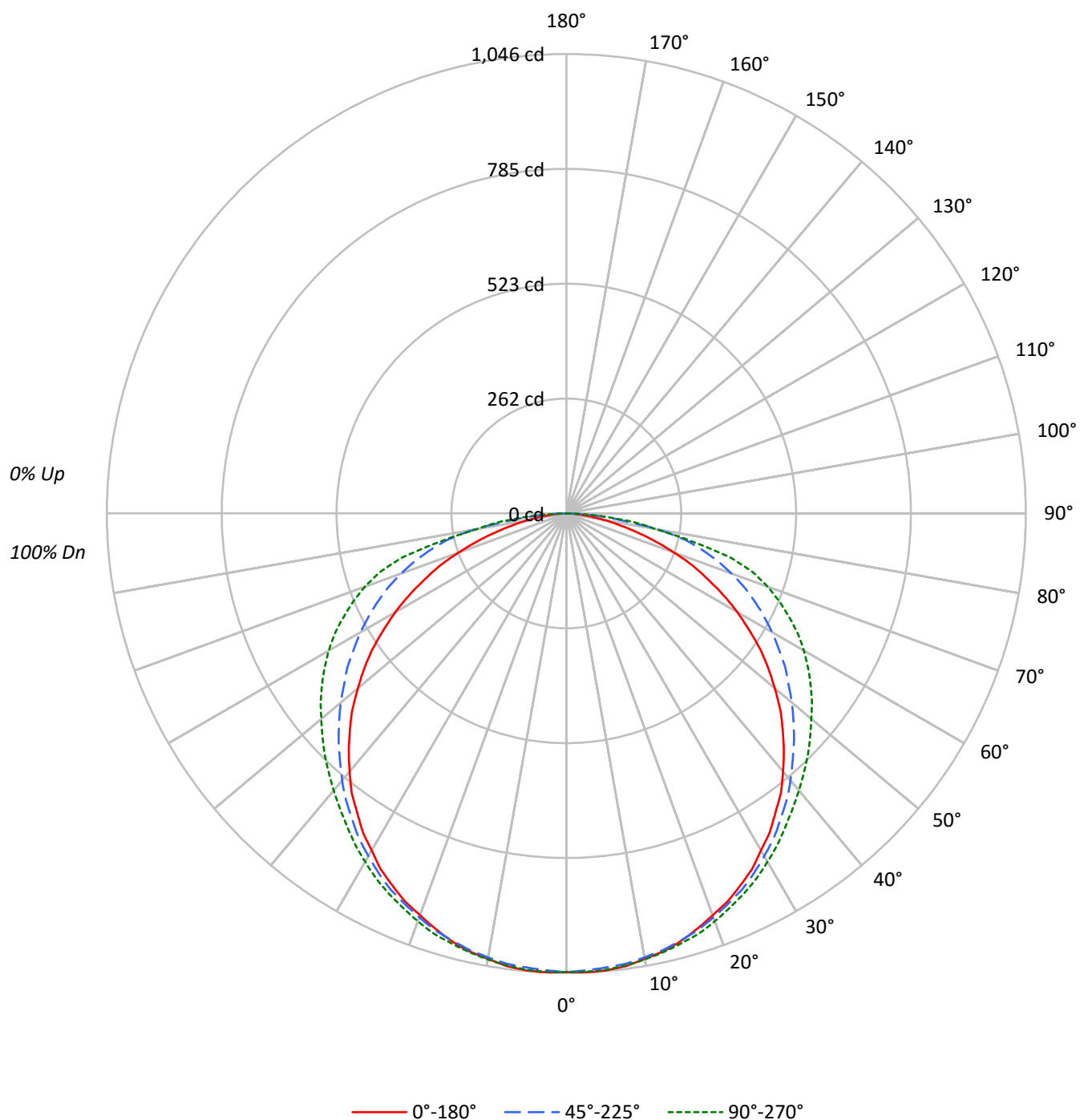
Input Watts (W): 44.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1405	1405	1405
5°	1411	1402	1408
10°	1407	1402	1409
15°	1404	1402	1411
20°	1394	1401	1415
25°	1389	1404	1418
30°	1377	1400	1423
35°	1364	1396	1429
40°	1348	1395	1447
45°	1326	1395	1479
50°	1297	1403	1524
55°	1264	1426	1592
60°	1210	1454	1680
65°	1133	1505	1783
70°	1030	1575	1918
75°	873	1661	2004
80°	690	1672	1621
85°	508	1272	1423



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.1	3.0
10°-20°	285.1	8.6
20°-30°	436.0	13.1
30°-40°	533.0	16.0
40°-50°	568.1	17.1
50°-60°	543.1	16.4
60°-70°	460.1	13.9
70°-80°	309.2	9.3
80°-90°	87.2	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°	820.2	24.7
0°-40°	1353.2	40.7
0°-60°	2464.4	74.2
0°-90°	3321.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3321.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1044	1044	1044	1044	1044	
5°	1044	1043	1038	1043	1043	99
15°	1008	1008	1006	1015	1013	284
25°	936	939	946	954	955	431
35°	830	837	850	866	870	520
45°	697	708	733	764	778	537
55°	539	558	608	656	679	480
65°	356	392	473	535	560	353
75°	168	229	320	374	386	180
85°	33	68	82	89	92	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1044.4	1044.4	1044.4	1044.4	1044.4
2.5°	1046.0	1046.0	1041.1	1044.4	1044.4
5°	1044.4	1042.7	1037.8	1042.7	1042.7
7.5°	1039.4	1037.8	1034.5	1039.4	1037.8
10°	1029.5	1029.5	1026.2	1031.2	1031.2
12.5°	1021.3	1019.7	1018.0	1024.6	1022.9
15°	1008.1	1008.1	1006.5	1014.7	1013.1
17.5°	991.6	993.3	994.9	1001.5	1003.2
20°	973.5	976.8	978.5	988.4	988.4
22.5°	957.1	958.7	962.0	971.9	971.9
25°	935.6	938.9	945.5	953.8	955.4
27.5°	914.2	915.9	924.1	935.6	937.3
30°	886.2	891.2	901.0	914.2	915.9
32.5°	861.5	866.5	878.0	891.2	894.5
35°	830.2	836.8	850.0	866.5	869.8
37.5°	802.2	807.2	823.6	841.7	846.7
40°	767.6	777.5	794.0	815.4	823.6
42.5°	733.0	742.9	762.7	790.7	800.6
45°	696.8	708.3	733.0	764.3	777.5
47.5°	660.5	673.7	701.7	738.0	752.8
50°	619.4	635.8	670.4	711.6	728.1
52.5°	579.8	599.6	637.5	683.6	705.0
55°	538.7	558.4	607.8	655.6	678.7
57.5°	492.5	518.9	573.2	627.6	652.3
60°	449.7	474.4	540.3	599.6	624.3
62.5°	403.6	436.5	507.4	570.0	594.7
65°	355.8	392.0	472.8	535.4	560.1
67.5°	313.0	352.5	438.2	500.8	525.5
70°	261.9	311.3	400.3	462.9	487.6
72.5°	214.1	268.5	360.7	421.7	444.8
75°	168.0	229.0	319.6	373.9	385.5
77.5°	125.2	189.4	276.7	299.8	291.6
80°	89.0	151.5	215.8	204.3	209.2
82.5°	57.7	115.3	133.4	151.5	156.5
85°	32.9	67.5	82.4	89.0	92.2
87.5°	14.8	24.7	32.9	32.9	31.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)