

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: P310300

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-RDP-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: P310300
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-6500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.187" POLYCARB SHEET
Light Source: (336) 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: 3338.0 lumens
Efficiency: N/A
Efficacy: 74.2 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

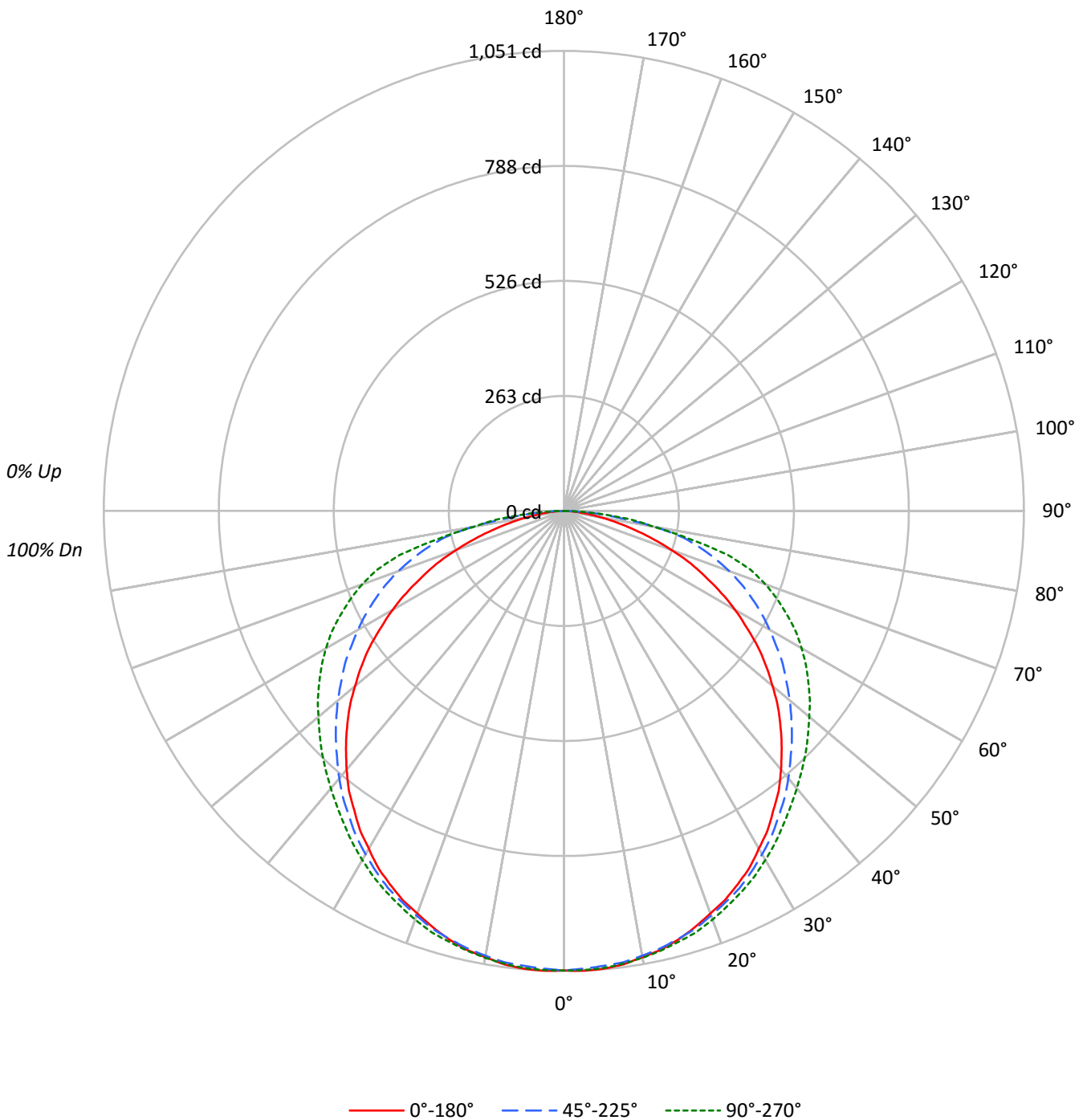
Input Watts (W): 45
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				10	0
RW	70	50	30	10	70	50	30	10	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	102	102	102	100
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1412	1412	1412
5°	1418	1409	1415
10°	1414	1409	1416
15°	1411	1409	1418
20°	1401	1408	1422
25°	1396	1411	1426
30°	1384	1407	1430
35°	1371	1403	1436
40°	1355	1402	1454
45°	1333	1402	1487
50°	1303	1411	1532
55°	1270	1433	1600
60°	1216	1461	1689
65°	1138	1513	1792
70°	1036	1583	1928
75°	878	1670	2014
80°	693	1681	1629
85°	511	1278	1431



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.6	3.0
10°-20°	286.6	8.6
20°-30°	438.2	13.1
30°-40°	535.7	16.0
40°-50°	571.0	17.1
50°-60°	545.9	16.4
60°-70°	462.5	13.9
70°-80°	310.8	9.3
80°-90°	87.7	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°	824.4	24.7
0°-40°	1360.1	40.7
0°-60°	2477.0	74.2
0°-90°	3338.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3338.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1050	1050	1050	1050	1050	
5°	1050	1048	1043	1048	1048	100
15°	1013	1013	1012	1020	1018	286
25°	940	944	950	959	960	433
35°	834	841	854	871	874	523
45°	700	712	737	768	782	540
55°	541	561	611	659	682	482
65°	358	394	475	538	563	355
75°	169	230	321	376	387	181
85°	33	68	83	89	93	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1049.7	1049.7	1049.7	1049.7	1049.7
2.5°	1051.4	1051.4	1046.4	1049.7	1049.7
5°	1049.7	1048.0	1043.1	1048.0	1048.0
7.5°	1044.7	1043.1	1039.8	1044.7	1043.1
10°	1034.8	1034.8	1031.5	1036.5	1036.5
12.5°	1026.5	1024.9	1023.2	1029.8	1028.2
15°	1013.3	1013.3	1011.6	1019.9	1018.2
17.5°	996.7	998.4	1000.0	1006.7	1008.3
20°	978.5	981.8	983.5	993.4	993.4
22.5°	962.0	963.6	966.9	976.9	976.9
25°	940.4	943.7	950.4	958.6	960.3
27.5°	918.9	920.6	928.8	940.4	942.1
30°	890.8	895.7	905.7	918.9	920.6
32.5°	865.9	870.9	882.5	895.7	899.0
35°	834.5	841.1	854.3	870.9	874.2
37.5°	806.3	811.3	827.8	846.1	851.0
40°	771.6	781.5	798.0	819.6	827.8
42.5°	736.8	746.7	766.6	794.7	804.7
45°	700.4	711.9	736.8	768.2	781.5
47.5°	663.9	677.2	705.3	741.7	756.6
50°	622.5	639.1	673.9	715.3	731.8
52.5°	582.8	602.7	640.8	687.1	708.6
55°	541.4	561.3	610.9	659.0	682.1
57.5°	495.1	521.5	576.2	630.8	655.7
60°	452.0	476.8	543.1	602.7	627.5
62.5°	405.6	438.8	510.0	572.9	597.7
65°	357.6	394.1	475.2	538.1	562.9
67.5°	314.6	354.3	440.4	503.3	528.2
70°	263.3	312.9	402.3	465.2	490.1
72.5°	215.2	269.9	362.6	423.9	447.0
75°	168.9	230.1	321.2	375.8	387.4
77.5°	125.8	190.4	278.2	301.3	293.1
80°	89.4	152.3	216.9	205.3	210.3
82.5°	57.9	115.9	134.1	152.3	157.3
85°	33.1	67.9	82.8	89.4	92.7
87.5°	14.9	24.8	33.1	33.1	31.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)