

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: P310285

Luminaire Tested: **24FCZ2-55HE-UNV-L82765-RDP-CP125-W2A-U-3500K**

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: P310285
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-CP125-W2A-U-3500K
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET
Light Source: (336) 3500K 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: 3257.0 lumens
Efficiency: N/A
Efficacy: 75.2 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

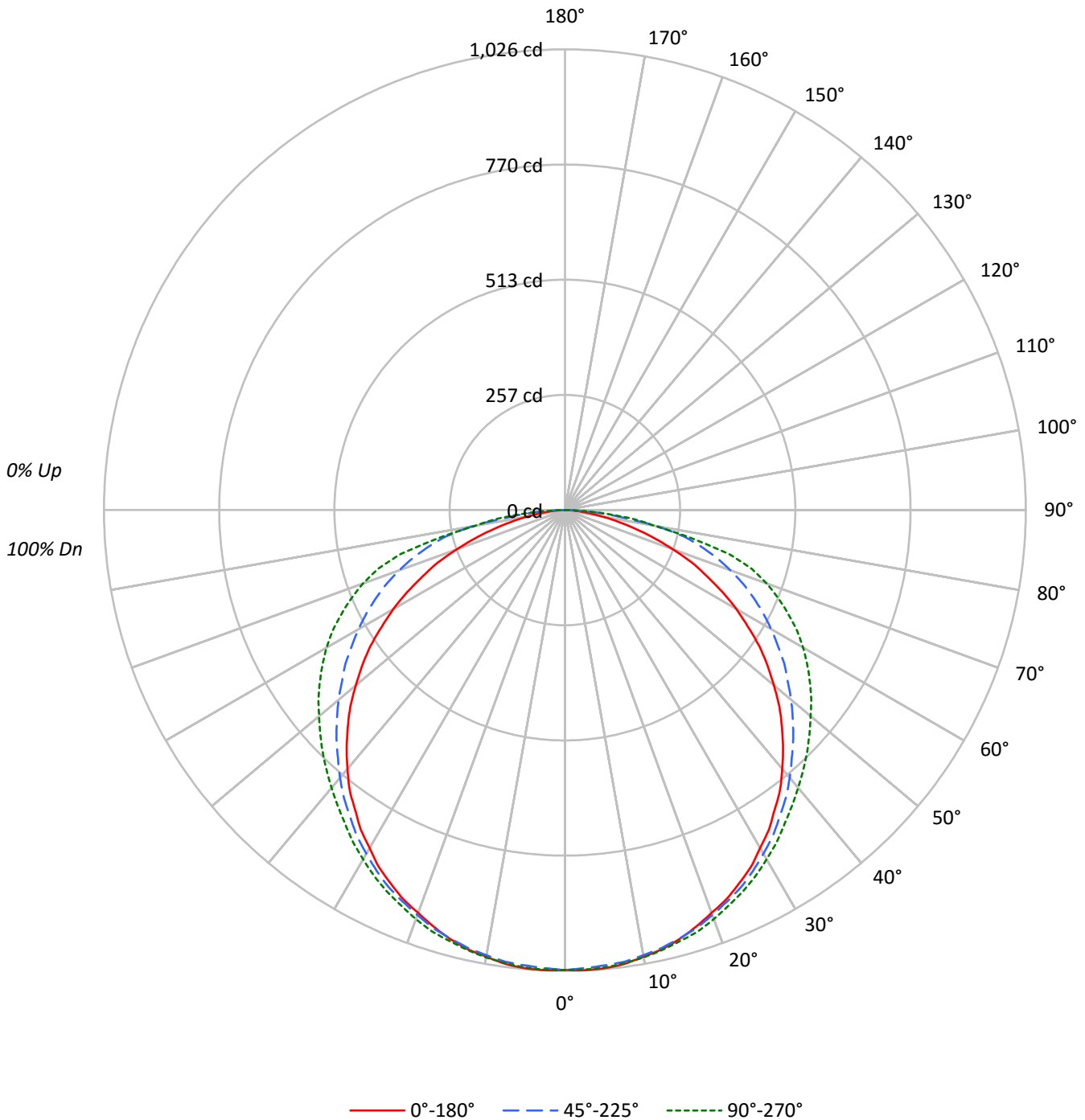
Input Watts (W): 43.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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°	1378	1378	1378
5°	1383	1375	1381
10°	1379	1375	1382
15°	1377	1375	1384
20°	1367	1374	1388
25°	1362	1377	1391
30°	1350	1373	1395
35°	1337	1369	1401
40°	1322	1368	1419
45°	1300	1368	1451
50°	1271	1376	1495
55°	1239	1398	1561
60°	1187	1426	1648
65°	1111	1476	1749
70°	1011	1544	1881
75°	857	1629	1965
80°	676	1640	1590
85°	499	1247	1397



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.2	3.0
10°-20°	279.6	8.6
20°-30°	427.6	13.1
30°-40°	522.7	16.0
40°-50°	557.1	17.1
50°-60°	532.7	16.4
60°-70°	451.3	13.9
70°-80°	303.3	9.3
80°-90°	85.5	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°	804.4	24.7
0°-40°	1327.1	40.7
0°-60°	2416.9	74.2
0°-90°	3257.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3257.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1024	1024	1024	1024	1024	
5°	1024	1023	1018	1023	1023	97
15°	989	989	987	995	994	279
25°	918	921	927	935	937	423
35°	814	821	834	850	853	510
45°	683	695	719	750	762	527
55°	528	548	596	643	666	471
65°	349	384	464	525	549	346
75°	165	225	313	367	378	176
85°	32	66	81	87	90	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1024.2	1024.2	1024.2	1024.2	1024.2
2.5°	1025.8	1025.8	1021.0	1024.2	1024.2
5°	1024.2	1022.6	1017.8	1022.6	1022.6
7.5°	1019.4	1017.8	1014.5	1019.4	1017.8
10°	1009.7	1009.7	1006.5	1011.3	1011.3
12.5°	1001.6	1000.0	998.4	1004.8	1003.2
15°	988.7	988.7	987.1	995.2	993.5
17.5°	972.5	974.2	975.8	982.2	983.8
20°	954.8	958.0	959.6	969.3	969.3
22.5°	938.6	940.2	943.5	953.2	953.2
25°	917.6	920.8	927.3	935.4	937.0
27.5°	896.6	898.2	906.3	917.6	919.2
30°	869.1	874.0	883.7	896.6	898.2
32.5°	844.9	849.8	861.1	874.0	877.2
35°	814.2	820.7	833.6	849.8	853.0
37.5°	786.8	791.6	807.8	825.5	830.4
40°	752.8	762.5	778.7	799.7	807.8
42.5°	718.9	728.6	748.0	775.4	785.1
45°	683.4	694.7	718.9	749.6	762.5
47.5°	647.8	660.7	688.2	723.7	738.3
50°	607.4	623.6	657.5	697.9	714.1
52.5°	568.7	588.0	625.2	670.4	691.4
55°	528.3	547.7	596.1	643.0	665.6
57.5°	483.0	508.9	562.2	615.5	639.7
60°	441.0	465.3	529.9	588.0	612.3
62.5°	395.8	428.1	497.6	559.0	583.2
65°	349.0	384.5	463.7	525.0	549.3
67.5°	306.9	345.7	429.7	491.1	515.3
70°	256.9	305.3	392.6	454.0	478.2
72.5°	210.0	263.3	353.8	413.6	436.2
75°	164.8	224.6	313.4	366.7	378.0
77.5°	122.8	185.8	271.4	294.0	285.9
80°	87.2	148.6	211.6	200.3	205.2
82.5°	56.5	113.1	130.9	148.6	153.5
85°	32.3	66.2	80.8	87.2	90.5
87.5°	14.5	24.2	32.3	32.3	30.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)