

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: P313676

Luminaire Tested: **24FCZ2-55HE-UNV-L83050-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: P313676
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-L83050-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: 3334.0 lumens
Efficiency: N/A
Efficacy: 77.4 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

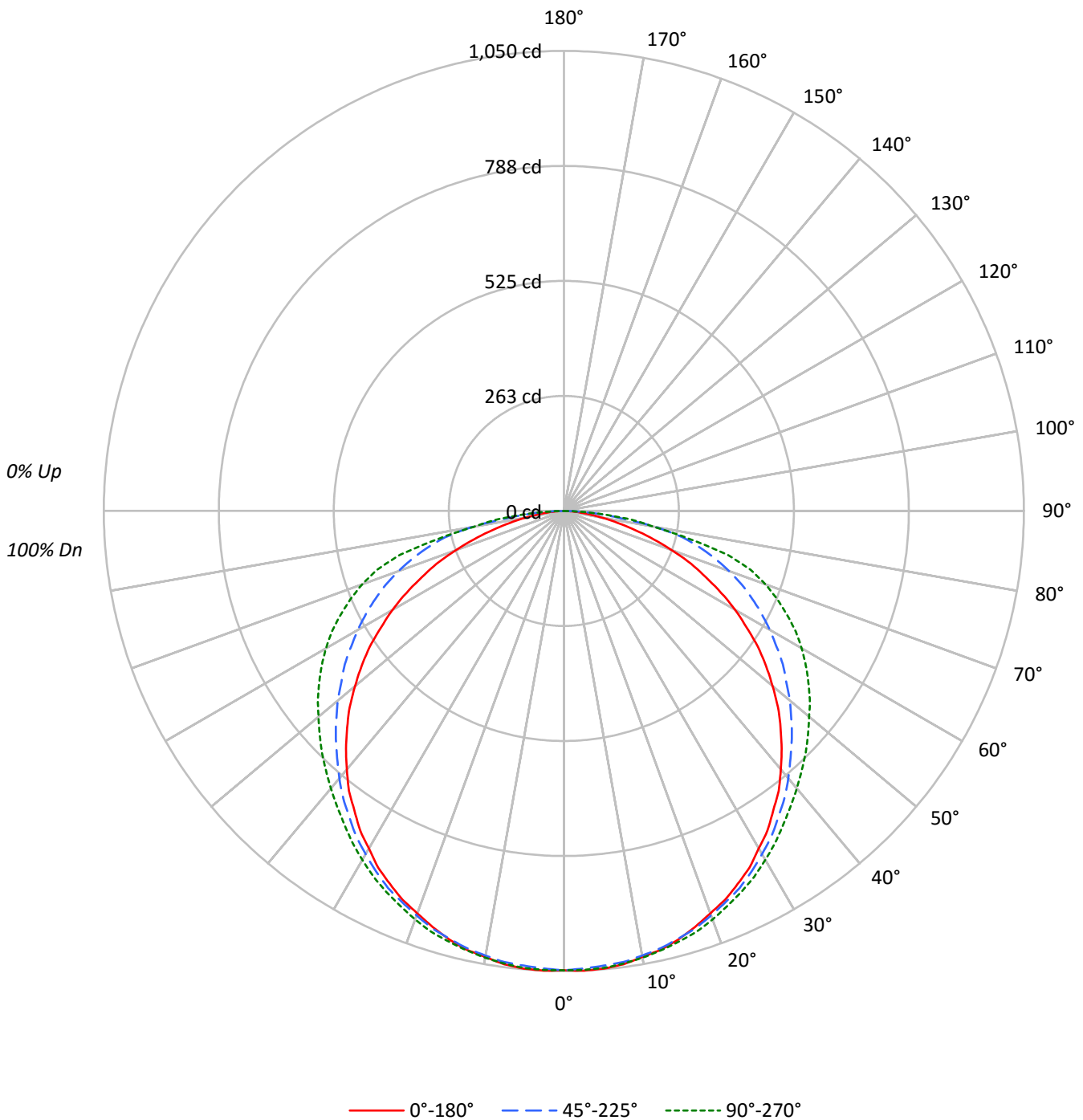
Input Watts (W): 43.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1411	1411	1411
5°	1416	1407	1414
10°	1412	1408	1414
15°	1410	1407	1417
20°	1399	1406	1421
25°	1394	1409	1424
30°	1382	1405	1429
35°	1369	1402	1434
40°	1353	1400	1452
45°	1331	1400	1485
50°	1302	1409	1530
55°	1269	1431	1598
60°	1215	1460	1687
65°	1137	1511	1790
70°	1034	1581	1926
75°	877	1668	2012
80°	692	1678	1627
85°	511	1277	1430



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.5	3.0
10°-20°	286.2	8.6
20°-30°	437.7	13.1
30°-40°	535.1	16.0
40°-50°	570.3	17.1
50°-60°	545.3	16.4
60°-70°	461.9	13.9
70°-80°	310.5	9.3
80°-90°	87.6	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°	823.4	24.7
0°-40°	1358.5	40.7
0°-60°	2474.1	74.2
0°-90°	3334.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3334.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1048	1048	1048	1048	1048	
5°	1048	1047	1042	1047	1047	100
15°	1012	1012	1010	1019	1017	285
25°	939	943	949	958	959	433
35°	834	840	853	870	873	522
45°	700	711	736	767	780	540
55°	541	561	610	658	681	482
65°	357	394	475	538	562	355
75°	169	230	321	375	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°	1048.4	1048.4	1048.4	1048.4	1048.4
2.5°	1050.1	1050.1	1045.1	1048.4	1048.4
5°	1048.4	1046.8	1041.8	1046.8	1046.8
7.5°	1043.5	1041.8	1038.5	1043.5	1041.8
10°	1033.6	1033.6	1030.3	1035.2	1035.2
12.5°	1025.3	1023.6	1022.0	1028.6	1026.9
15°	1012.1	1012.1	1010.4	1018.7	1017.0
17.5°	995.5	997.2	998.8	1005.5	1007.1
20°	977.3	980.6	982.3	992.2	992.2
22.5°	960.8	962.5	965.8	975.7	975.7
25°	939.3	942.6	949.2	957.5	959.1
27.5°	917.8	919.5	927.7	939.3	941.0
30°	889.7	894.7	904.6	917.8	919.5
32.5°	864.9	869.8	881.4	894.7	898.0
35°	833.5	840.1	853.3	869.8	873.2
37.5°	805.4	810.3	826.9	845.0	850.0
40°	770.6	780.5	797.1	818.6	826.9
42.5°	735.9	745.8	765.7	793.8	803.7
45°	699.5	711.1	735.9	767.3	780.5
47.5°	663.1	676.4	704.5	740.9	755.7
50°	621.8	638.3	673.1	714.4	730.9
52.5°	582.1	601.9	640.0	686.3	707.8
55°	540.8	560.6	610.2	658.2	681.3
57.5°	494.5	520.9	575.5	630.1	654.9
60°	451.5	476.3	542.4	601.9	626.8
62.5°	405.2	438.2	509.3	572.2	597.0
65°	357.2	393.6	474.6	537.5	562.3
67.5°	314.2	353.9	439.9	502.7	527.5
70°	262.9	312.5	401.8	464.7	489.5
72.5°	215.0	269.6	362.2	423.3	446.5
75°	168.7	229.9	320.8	375.4	387.0
77.5°	125.7	190.2	277.8	301.0	292.7
80°	89.3	152.1	216.6	205.1	210.0
82.5°	57.9	115.8	133.9	152.1	157.1
85°	33.1	67.8	82.7	89.3	92.6
87.5°	14.9	24.8	33.1	33.1	31.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)