

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: P309532

Luminaire Tested: **24FCZ2-50HE-UNV-L82765-HRP-CP187-W2A-U-5000K**

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: P309532
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-50HE-UNV-L82765-HRP-CP187-W2A-U-5000K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.187"
POLYCARB SHEET
Light Source: (336) 5000K 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: 3358.0 lumens
Efficiency: N/A
Efficacy: 85.4 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

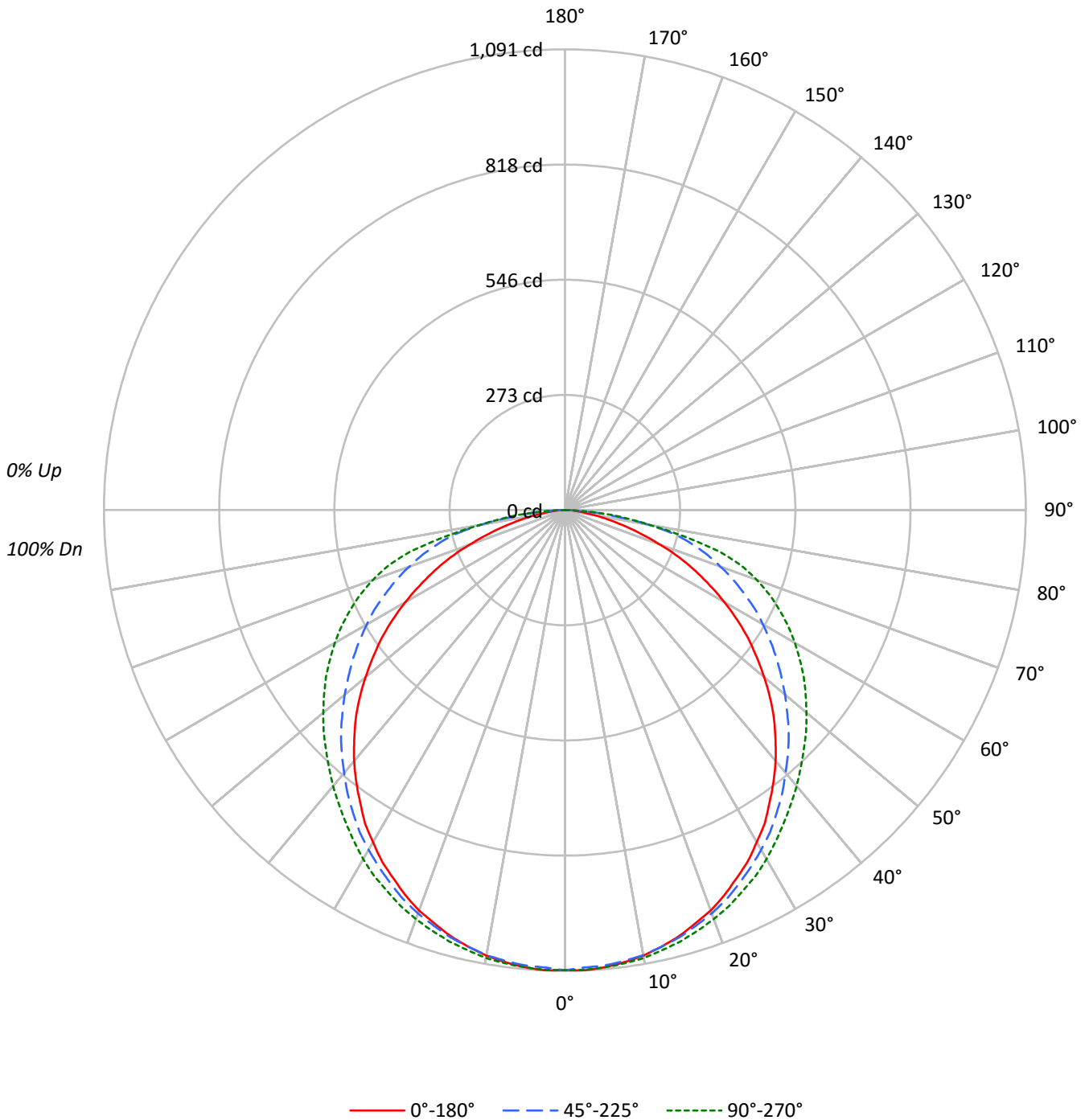
Input Watts (W): 39.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	100	100	100	100	100		
	1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	82	82	82	82	82	82		
	2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67	67	67	67	67	67		
	3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56	56	56	56	56	56		
	4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	50	48	48	48	48	48	48		
	5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41	41	41	41	41	41		
	6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36	36	36	36	36	36		
	7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31	31	31	31	31	31		
	8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28	28	28	28	28	28		
	9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25	25	25	25	25	25		
	10	52	38	30	25	50	38	30	25	37	30	25	36	29	24	35	29	24	23	23	23	23	23	23		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1466	1466	1466
5°	1468	1462	1468
10°	1464	1462	1471
15°	1455	1459	1473
20°	1445	1455	1476
25°	1428	1448	1478
30°	1411	1444	1483
35°	1388	1436	1485
40°	1363	1427	1499
45°	1332	1426	1522
50°	1289	1424	1563
55°	1243	1434	1619
60°	1173	1456	1691
65°	1083	1490	1786
70°	946	1543	1902
75°	767	1622	1966
80°	566	1590	1590
85°	434	1172	1325



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.2	3.1
10°-20°	296.4	8.8
20°-30°	451.2	13.4
30°-40°	547.9	16.3
40°-50°	578.8	17.2
50°-60°	546.2	16.3
60°-70°	454.1	13.5
70°-80°	298.8	8.9
80°-90°	81.4	2.4
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°	850.8	25.3
0°-40°	1398.7	41.7
0°-60°	2523.7	75.2
0°-90°	3358.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3358.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1090	1090	1090	1090	1090	
5°	1087	1087	1082	1087	1087	103
15°	1044	1046	1047	1057	1057	295
25°	962	967	976	992	995	444
35°	845	855	874	897	904	529
45°	700	714	749	786	800	539
55°	530	552	612	669	690	472
65°	340	380	468	537	561	336
75°	148	215	312	370	378	159
85°	28	62	76	84	86	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1089.5	1089.5	1089.5	1089.5	1089.5
2.5°	1090.9	1089.5	1083.9	1089.5	1089.5
5°	1086.7	1086.7	1082.5	1086.7	1086.7
7.5°	1079.7	1079.7	1076.9	1082.5	1082.5
10°	1071.2	1071.2	1069.8	1076.9	1076.9
12.5°	1058.6	1060.0	1058.6	1067.0	1067.0
15°	1044.5	1045.9	1047.3	1057.2	1057.2
17.5°	1026.2	1029.1	1031.9	1043.1	1044.5
20°	1009.4	1010.8	1016.4	1029.1	1030.5
22.5°	986.9	991.1	998.1	1010.8	1015.0
25°	961.6	967.2	975.6	992.5	995.3
27.5°	937.7	941.9	953.1	971.4	977.0
30°	908.2	915.2	929.2	947.5	954.5
32.5°	880.0	887.1	903.9	923.6	929.2
35°	844.9	854.7	874.4	896.9	903.9
37.5°	811.2	821.0	844.9	870.2	878.6
40°	776.0	787.3	812.6	842.1	853.3
42.5°	738.1	753.5	781.6	814.0	826.6
45°	700.1	714.2	749.3	785.8	799.9
47.5°	659.3	676.2	714.2	757.7	774.6
50°	615.7	636.8	680.4	728.2	746.5
52.5°	572.2	596.1	645.3	698.7	718.4
55°	530.0	552.5	611.5	669.2	690.3
57.5°	483.6	511.7	576.4	638.2	659.3
60°	435.8	466.7	541.2	605.9	628.4
62.5°	388.0	423.1	507.5	572.2	596.1
65°	340.2	379.6	468.1	537.0	560.9
67.5°	293.8	337.4	431.6	500.5	524.4
70°	240.4	295.2	392.2	459.7	483.6
72.5°	191.2	254.5	354.3	417.5	438.6
75°	147.6	215.1	312.1	369.7	378.2
77.5°	108.2	175.7	268.5	288.2	289.6
80°	73.1	140.6	205.2	202.4	205.2
82.5°	47.8	105.4	129.3	144.8	146.2
85°	28.1	61.9	75.9	84.3	85.8
87.5°	14.1	21.1	26.7	28.1	30.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)