

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: P309500

Luminaire Tested: **24FCZ2-50HE-UNV-L82765-HRP-CA08-W2A-U-2700K**

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: P309500
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-CA08-W2A-U-2700K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08" ACRYLIC SHEET
Light Source: (336) 2700K 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: 3199.0 lumens
Efficiency: N/A
Efficacy: 83.3 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

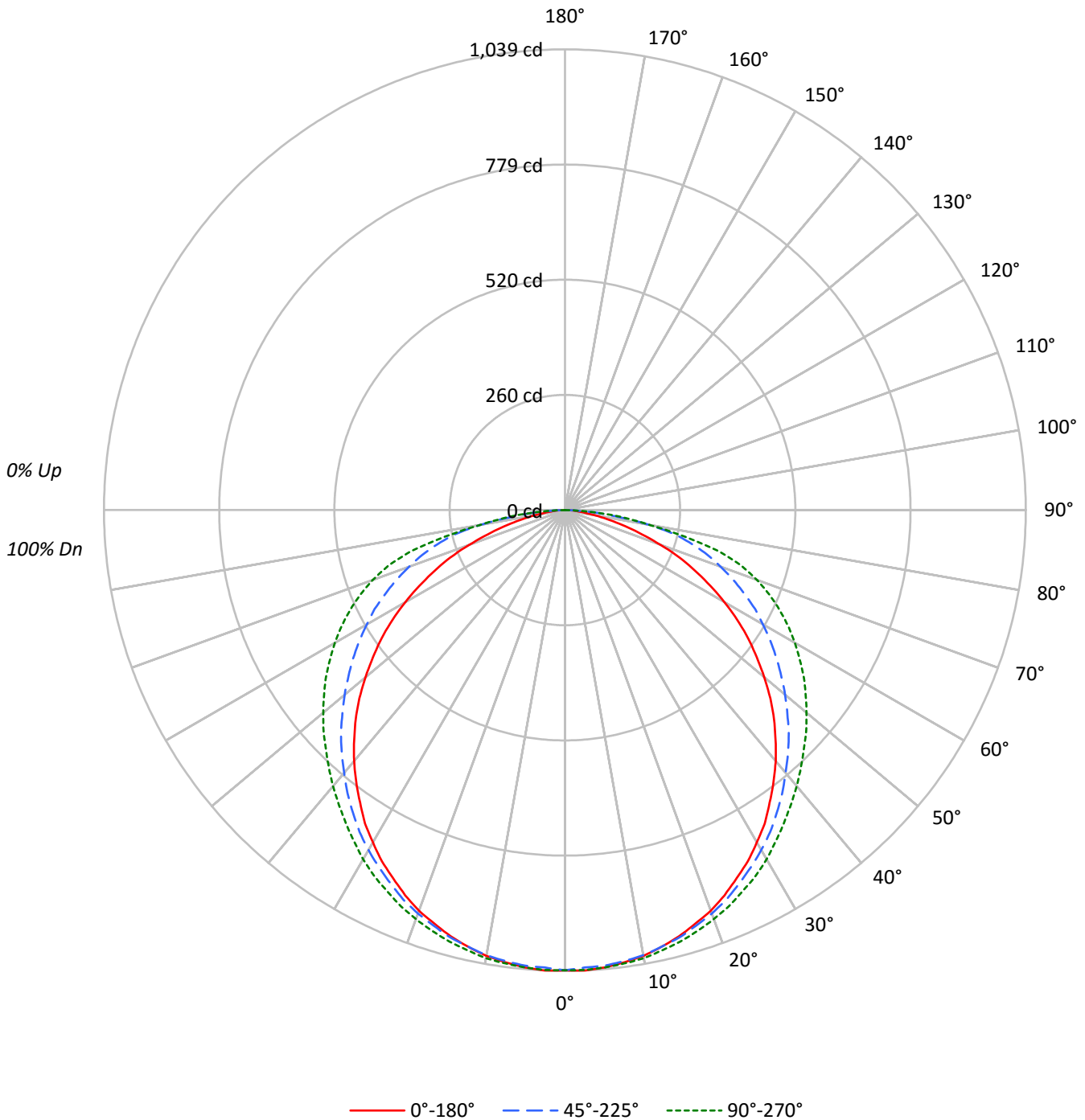
Input Watts (W): 38.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1396	1396	1396
5°	1398	1393	1398
10°	1394	1392	1402
15°	1386	1390	1403
20°	1377	1386	1406
25°	1360	1380	1408
30°	1344	1375	1413
35°	1322	1368	1414
40°	1299	1360	1428
45°	1269	1358	1450
50°	1228	1357	1488
55°	1184	1367	1543
60°	1117	1387	1611
65°	1032	1420	1701
70°	901	1470	1812
75°	731	1546	1873
80°	539	1515	1515
85°	414	1116	1261



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.3	3.1
10°-20°	282.3	8.8
20°-30°	429.8	13.4
30°-40°	521.9	16.3
40°-50°	551.4	17.2
50°-60°	520.3	16.3
60°-70°	432.6	13.5
70°-80°	284.6	8.9
80°-90°	77.6	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°	810.5	25.3
0°-40°	1332.4	41.7
0°-60°	2404.2	75.2
0°-90°	3199.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3199.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1038	1038	1038	1038	1038	
5°	1035	1035	1031	1035	1035	98
15°	995	996	998	1007	1007	281
25°	916	921	929	946	948	423
35°	805	814	833	854	861	504
45°	667	680	714	749	762	514
55°	505	526	583	638	658	450
65°	324	362	446	512	534	320
75°	141	205	297	352	360	151
85°	27	59	72	80	82	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1037.9	1037.9	1037.9	1037.9	1037.9
2.5°	1039.3	1037.9	1032.6	1037.9	1037.9
5°	1035.2	1035.2	1031.2	1035.2	1035.2
7.5°	1028.5	1028.5	1025.9	1031.2	1031.2
10°	1020.5	1020.5	1019.2	1025.9	1025.9
12.5°	1008.5	1009.8	1008.5	1016.5	1016.5
15°	995.1	996.4	997.7	1007.1	1007.1
17.5°	977.7	980.3	983.0	993.7	995.1
20°	961.6	962.9	968.3	980.3	981.7
22.5°	940.2	944.2	950.9	962.9	966.9
25°	916.0	921.4	929.4	945.5	948.2
27.5°	893.3	897.3	908.0	925.4	930.8
30°	865.2	871.9	885.2	902.7	909.4
32.5°	838.4	845.1	861.1	879.9	885.2
35°	804.9	814.3	833.0	854.4	861.1
37.5°	772.7	782.1	804.9	829.0	837.0
40°	739.3	750.0	774.1	802.2	812.9
42.5°	703.1	717.8	744.6	775.4	787.5
45°	666.9	680.3	713.8	748.6	762.0
47.5°	628.1	644.2	680.3	721.9	737.9
50°	586.6	606.7	648.2	693.7	711.1
52.5°	545.1	567.8	614.7	665.6	684.4
55°	504.9	526.3	582.6	637.5	657.6
57.5°	460.7	487.5	549.1	608.0	628.1
60°	415.2	444.6	515.6	577.2	598.6
62.5°	369.6	403.1	483.5	545.1	567.8
65°	324.1	361.6	446.0	511.6	534.4
67.5°	279.9	321.4	411.1	476.8	499.5
70°	229.0	281.2	373.7	437.9	460.7
72.5°	182.1	242.4	337.5	397.8	417.8
75°	140.6	204.9	297.3	352.2	360.3
77.5°	103.1	167.4	255.8	274.5	275.9
80°	69.6	133.9	195.5	192.9	195.5
82.5°	45.5	100.4	123.2	137.9	139.3
85°	26.8	58.9	72.3	80.4	81.7
87.5°	13.4	20.1	25.4	26.8	29.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)