

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: P309744

Luminaire Tested: **24FCZ2-70HE-UNV-L82765-HRP-CP125-W2A-U-3000K**

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: P309744
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: 24FCZ2-70HE-UNV-L82765-HRP-CP125-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125"
POLYCARB SHEET
Light Source: (336) 3000K 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: 4511.0 lumens
Efficiency: N/A
Efficacy: 78.7 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

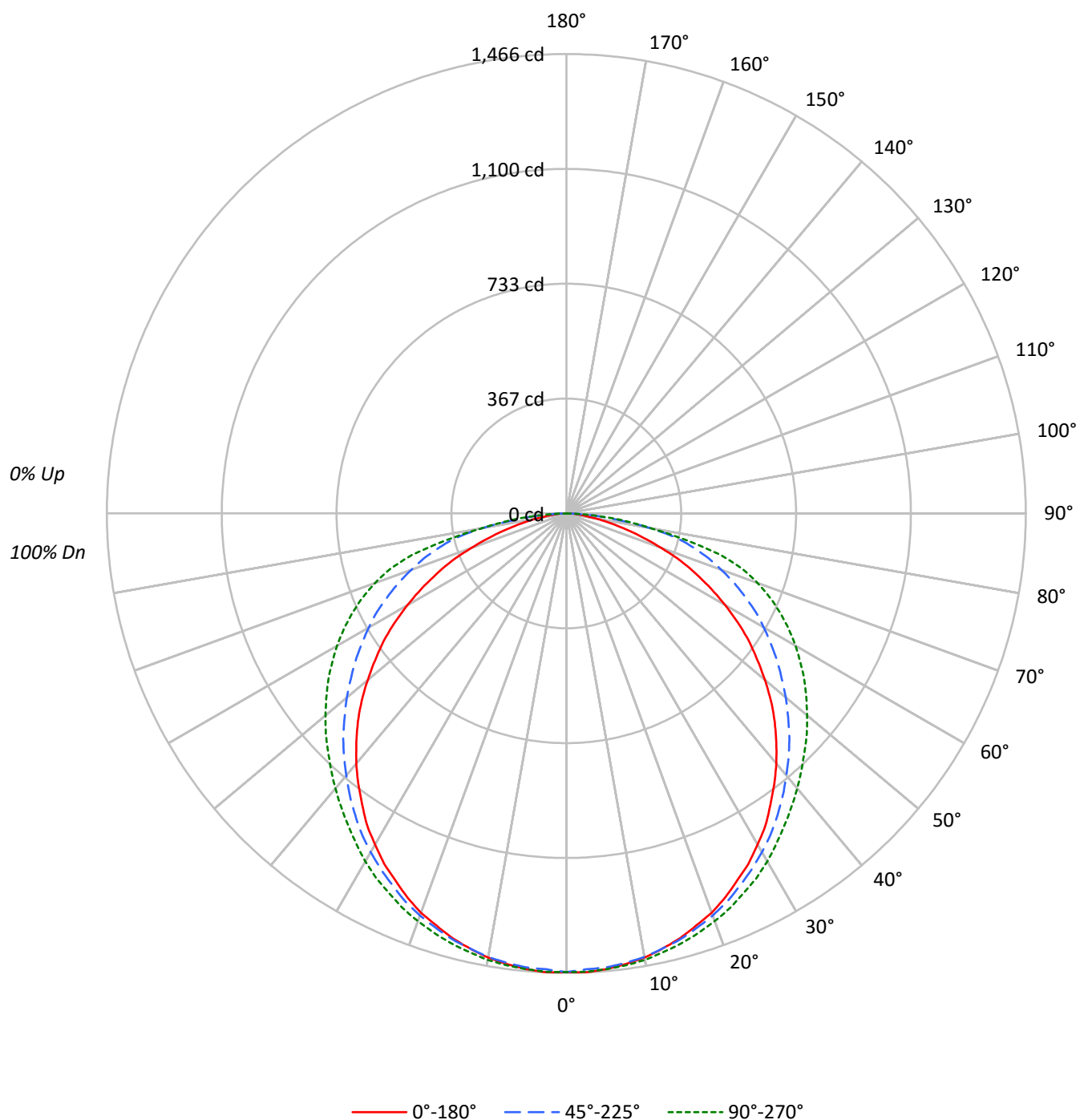
Input Watts (W): 57.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	108	103	98	94	105	101	96	93	96	93	90		92	90	87		82
2	98	89	82	76	95	87	80	75	83	78	73		80	75	71		67
3	89	78	69	62	86	76	68	62	73	66	61		70	64	59		56
4	81	68	59	52	79	67	59	52	65	57	51		62	56	50		48
5	74	61	52	45	72	60	51	45	58	50	44		56	49	44		41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		36
7	63	50	41	34	62	49	40	34	47	39	34		46	39	34		31
8	59	45	36	30	57	44	36	30	43	36	30		42	35	30		28
9	55	41	33	27	54	41	33	27	40	32	27		39	32	27		25
10	52	38	30	25	50	38	30	25	37	30	25		36	29	24		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1969	1969	1969
5°	1972	1964	1972
10°	1966	1964	1976
15°	1955	1960	1978
20°	1942	1955	1982
25°	1918	1946	1985
30°	1895	1939	1992
35°	1864	1929	1995
40°	1831	1917	2013
45°	1790	1915	2045
50°	1732	1913	2099
55°	1670	1927	2175
60°	1575	1957	2272
65°	1455	2002	2399
70°	1270	2073	2555
75°	1031	2179	2641
80°	761	2136	2136
85°	584	1575	1778



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.6	3.1
10°-20°	398.2	8.8
20°-30°	606.1	13.4
30°-40°	736.0	16.3
40°-50°	777.6	17.2
50°-60°	733.7	16.3
60°-70°	610.0	13.5
70°-80°	401.3	8.9
80°-90°	109.4	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°	1142.9	25.3
0°-40°	1878.9	41.7
0°-60°	3390.2	75.2
0°-90°	4511.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4511.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1464	1464	1464	1464	1464	
5°	1460	1460	1454	1460	1460	139
15°	1403	1405	1407	1420	1420	396
25°	1292	1299	1311	1333	1337	596
35°	1135	1148	1175	1205	1214	711
45°	940	959	1007	1056	1075	724
55°	712	742	822	899	927	634
65°	457	510	629	721	754	452
75°	198	289	419	497	508	214
85°	38	83	102	113	115	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1463.6	1463.6	1463.6	1463.6	1463.6
2.5°	1465.5	1463.6	1456.0	1463.6	1463.6
5°	1459.8	1459.8	1454.2	1459.8	1459.8
7.5°	1450.4	1450.4	1446.6	1454.2	1454.2
10°	1439.0	1439.0	1437.2	1446.6	1446.6
12.5°	1422.1	1423.9	1422.1	1433.4	1433.4
15°	1403.2	1405.1	1406.9	1420.2	1420.2
17.5°	1378.6	1382.4	1386.2	1401.3	1403.2
20°	1356.0	1357.8	1365.4	1382.4	1384.3
22.5°	1325.7	1331.4	1340.8	1357.8	1363.5
25°	1291.7	1299.3	1310.6	1333.3	1337.1
27.5°	1259.6	1265.3	1280.4	1305.0	1312.5
30°	1220.0	1229.4	1248.3	1272.9	1282.3
32.5°	1182.2	1191.7	1214.3	1240.8	1248.3
35°	1135.0	1148.2	1174.7	1204.9	1214.3
37.5°	1089.7	1102.9	1135.0	1169.0	1180.3
40°	1042.5	1057.6	1091.6	1131.2	1146.3
42.5°	991.5	1012.2	1050.0	1093.4	1110.4
45°	940.5	959.4	1006.6	1055.7	1074.6
47.5°	885.7	908.4	959.4	1017.9	1040.6
50°	827.2	855.5	914.0	978.2	1002.8
52.5°	768.6	800.7	866.8	938.6	965.0
55°	712.0	742.2	821.5	898.9	927.3
57.5°	649.6	687.4	774.3	857.4	885.7
60°	585.4	627.0	727.1	813.9	844.2
62.5°	521.2	568.4	681.8	768.6	800.7
65°	457.0	509.9	628.9	721.4	753.5
67.5°	394.7	453.2	579.8	672.3	704.4
70°	322.9	396.6	526.9	617.5	649.6
72.5°	256.8	341.8	475.9	560.9	589.2
75°	198.3	288.9	419.2	496.7	508.0
77.5°	145.4	236.1	360.7	387.1	389.0
80°	98.2	188.9	275.7	271.9	275.7
82.5°	64.2	141.6	173.7	194.5	196.4
85°	37.8	83.1	102.0	113.3	115.2
87.5°	18.9	28.3	35.9	37.8	41.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)