

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: METALUX

Report Number: P473878

Luminaire Tested: **24CZ2-75HE-UNV-L840-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473878
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-75HE-UNV-L840-CD1-U
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,RIBBED LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7934.9 lumens
Efficiency: N/A
Efficacy: 143.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

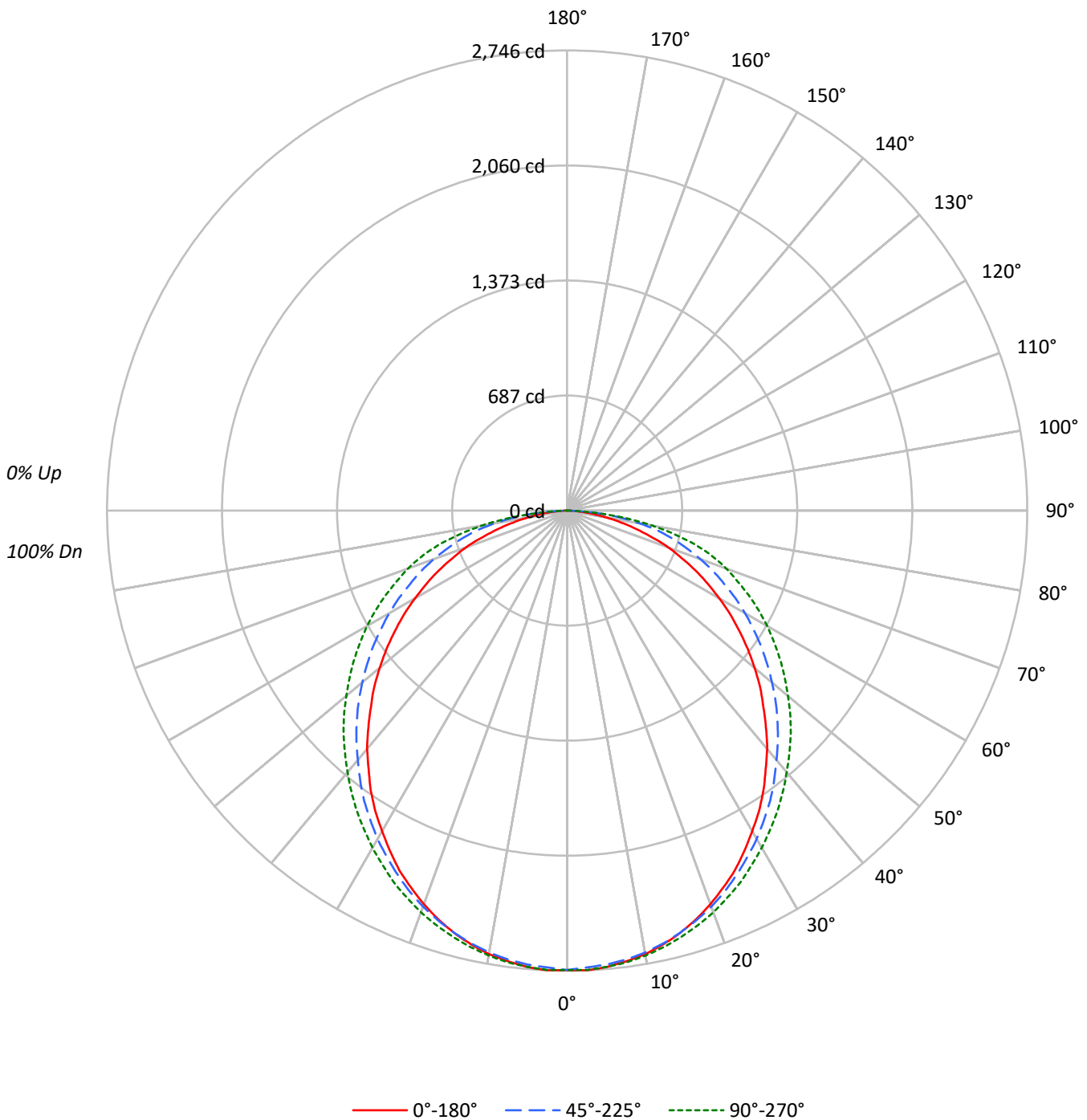
Input Watts (W): 55.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	89	82	76	95	88	81	75	84	78	74	81	76	72	78	74	70	68
3	89	78	70	63	87	77	69	63	74	67	61	71	65	60	68	63	59	57
4	82	69	60	53	79	68	59	53	65	58	52	63	57	51	61	55	51	48
5	75	62	53	46	73	61	52	46	58	51	45	56	50	44	55	49	44	42
6	69	56	46	40	67	55	46	40	53	45	39	51	44	39	49	43	39	37
7	64	50	41	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	36	30	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3689	3689	3689
5°	3691	3672	3691
10°	3671	3659	3683
15°	3634	3632	3668
20°	3579	3601	3653
25°	3517	3557	3635
30°	3432	3515	3609
35°	3354	3470	3594
40°	3263	3413	3580
45°	3151	3378	3591
50°	3056	3341	3601
55°	2944	3317	3642
60°	2822	3301	3708
65°	2690	3289	3804
70°	2531	3323	3979
75°	2226	3392	4139
80°	1857	3417	3993
85°	1326	2929	2969



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	259.2	3.3
10°-20°	738.3	9.3
20°-30°	1107.6	14.0
30°-40°	1322.4	16.7
40°-50°	1369.7	17.3
50°-60°	1261.0	15.9
60°-70°	1017.2	12.8
70°-80°	664.6	8.4
80°-90°	194.9	2.5
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°	2105.1	26.5
0°-40°	3427.5	43.2
0°-60°	6058.2	76.3
0°-90°	7934.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7934.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2742	2742	2742	2742	2742	
5°	2733	2730	2719	2734	2733	259
15°	2609	2609	2607	2633	2633	735
25°	2369	2374	2396	2440	2448	1089
35°	2042	2060	2113	2170	2188	1276
45°	1656	1697	1775	1855	1887	1280
55°	1255	1309	1414	1518	1552	1123
65°	845	902	1033	1151	1195	835
75°	428	509	652	765	796	457
85°	86	149	190	201	192	107
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2742.0	2742.0	2742.0	2742.0	2742.0
2.5°	2745.8	2742.0	2727.9	2744.5	2743.3
5°	2733.0	2730.4	2718.9	2734.3	2733.0
7.5°	2712.5	2711.2	2702.2	2718.9	2718.9
10°	2686.9	2684.3	2677.9	2697.1	2695.8
12.5°	2651.0	2649.7	2645.8	2668.9	2667.6
15°	2608.7	2608.7	2607.4	2633.0	2633.0
17.5°	2557.4	2558.7	2563.8	2593.3	2594.6
20°	2499.7	2504.8	2515.1	2548.4	2551.0
22.5°	2434.3	2444.6	2458.7	2495.9	2499.7
25°	2368.9	2374.1	2395.9	2439.5	2448.4
27.5°	2289.5	2302.3	2330.5	2375.4	2384.3
30°	2208.7	2226.7	2262.6	2308.7	2322.8
32.5°	2129.2	2144.6	2186.9	2239.5	2256.1
35°	2042.1	2060.0	2112.6	2170.3	2188.2
37.5°	1945.9	1974.1	2029.2	2095.9	2115.1
40°	1857.5	1883.1	1943.4	2017.7	2038.2
42.5°	1756.2	1788.2	1861.3	1936.9	1962.6
45°	1656.2	1697.2	1775.4	1854.9	1887.0
47.5°	1562.6	1596.0	1688.3	1778.0	1806.2
50°	1460.1	1498.5	1596.0	1690.8	1720.3
52.5°	1358.8	1405.0	1503.7	1603.7	1635.7
55°	1255.0	1308.8	1413.9	1517.8	1552.4
57.5°	1155.0	1208.8	1317.8	1428.0	1463.9
60°	1048.6	1106.3	1226.8	1333.2	1378.0
62.5°	946.0	1003.7	1130.6	1246.0	1288.3
65°	844.8	902.5	1033.2	1151.1	1194.7
67.5°	739.7	802.5	942.2	1056.3	1098.6
70°	643.5	703.8	844.8	966.6	1011.4
72.5°	533.3	605.1	748.6	869.1	911.4
75°	428.2	508.9	652.5	765.3	796.1
77.5°	330.7	411.5	555.1	639.7	658.9
80°	239.7	321.8	441.0	499.9	515.3
82.5°	155.1	239.7	319.2	358.9	364.1
85°	85.9	148.7	189.7	201.3	192.3
87.5°	30.8	56.4	55.1	44.9	35.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)