

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: P473877

Luminaire Tested: **24CZ2-70HE-UNV-L840-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473877
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-70HE-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: 7355.0 lumens
Efficiency: N/A
Efficacy: 149.2 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

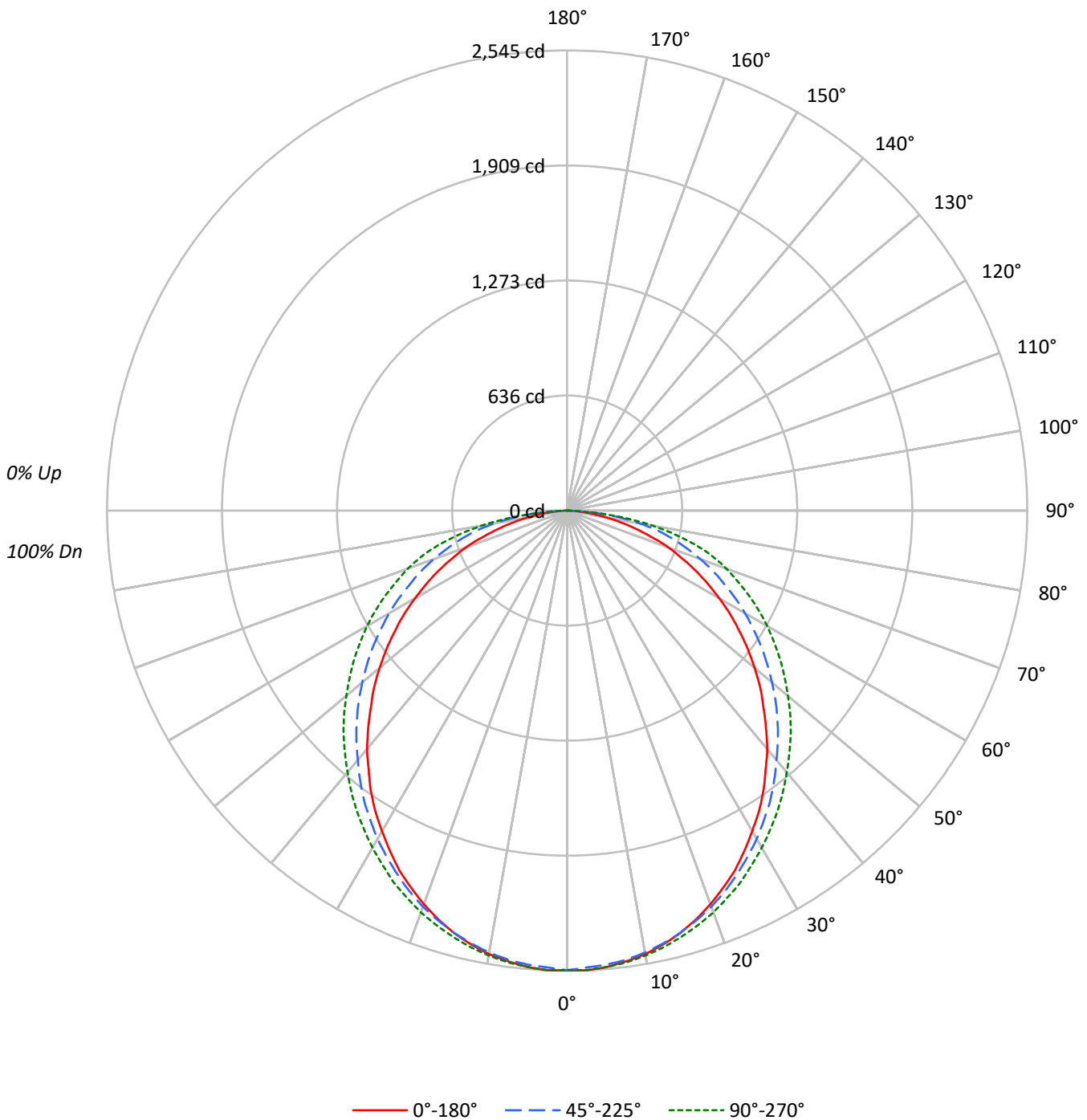
Input Watts (W): 49.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3420	3420	3420
5°	3422	3404	3422
10°	3403	3391	3414
15°	3368	3367	3400
20°	3318	3338	3386
25°	3260	3297	3369
30°	3181	3258	3345
35°	3109	3216	3332
40°	3024	3164	3318
45°	2921	3131	3328
50°	2833	3096	3338
55°	2729	3074	3375
60°	2616	3060	3437
65°	2493	3049	3526
70°	2347	3080	3688
75°	2063	3144	3836
80°	1722	3168	3701
85°	1229	2716	2751



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	240.3	3.3
10°-20°	684.4	9.3
20°-30°	1026.7	14.0
30°-40°	1225.7	16.7
40°-50°	1269.6	17.3
50°-60°	1168.8	15.9
60°-70°	942.8	12.8
70°-80°	616.0	8.4
80°-90°	180.6	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°	1951.3	26.5
0°-40°	3177.0	43.2
0°-60°	5615.5	76.3
0°-90°	7355.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7355.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2542	2542	2542	2542	2542	
5°	2533	2531	2520	2534	2533	240
15°	2418	2418	2417	2441	2441	681
25°	2196	2201	2221	2261	2270	1010
35°	1893	1910	1958	2012	2028	1182
45°	1535	1573	1646	1719	1749	1187
55°	1163	1213	1311	1407	1439	1041
65°	783	836	958	1067	1107	774
75°	397	472	605	709	738	424
85°	80	138	176	187	178	99
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2541.6	2541.6	2541.6	2541.6	2541.6
2.5°	2545.2	2541.6	2528.6	2544.0	2542.8
5°	2533.3	2530.9	2520.2	2534.5	2533.3
7.5°	2514.3	2513.1	2504.8	2520.2	2520.2
10°	2490.5	2488.2	2482.2	2500.0	2498.8
12.5°	2457.3	2456.1	2452.5	2473.9	2472.7
15°	2418.0	2418.0	2416.9	2440.6	2440.6
17.5°	2370.5	2371.7	2376.5	2403.8	2405.0
20°	2317.0	2321.8	2331.3	2362.2	2364.6
22.5°	2256.4	2266.0	2279.0	2313.5	2317.0
25°	2195.8	2200.6	2220.8	2261.2	2269.5
27.5°	2122.2	2134.1	2160.2	2201.8	2210.1
30°	2047.3	2064.0	2097.2	2140.0	2153.1
32.5°	1973.6	1987.9	2027.1	2075.8	2091.3
35°	1892.8	1909.5	1958.2	2011.7	2028.3
37.5°	1803.7	1829.9	1881.0	1942.8	1960.6
40°	1721.7	1745.5	1801.4	1870.3	1889.3
42.5°	1627.9	1657.6	1725.3	1795.4	1819.2
45°	1535.2	1573.2	1645.7	1719.4	1749.1
47.5°	1448.5	1479.3	1564.9	1648.1	1674.2
50°	1353.4	1389.0	1479.3	1567.3	1594.6
52.5°	1259.5	1302.3	1393.8	1486.5	1516.2
55°	1163.3	1213.2	1310.6	1406.9	1438.9
57.5°	1070.6	1120.5	1221.5	1323.7	1357.0
60°	972.0	1025.4	1137.1	1235.8	1277.3
62.5°	876.9	930.4	1048.0	1155.0	1194.2
65°	783.0	836.5	957.7	1067.0	1107.4
67.5°	685.6	743.8	873.3	979.1	1018.3
70°	596.5	652.3	783.0	895.9	937.5
72.5°	494.3	560.8	693.9	805.6	844.8
75°	396.9	471.7	604.8	709.4	737.9
77.5°	306.6	381.4	514.5	592.9	610.8
80°	222.2	298.2	408.8	463.4	477.7
82.5°	143.8	222.2	295.9	332.7	337.5
85°	79.6	137.8	175.9	186.6	178.2
87.5°	28.5	52.3	51.1	41.6	33.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)