

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: P474027

Luminaire Tested: **24CZ2-70HE-S-UNV-L835-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474027
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-70HE-S-UNV-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

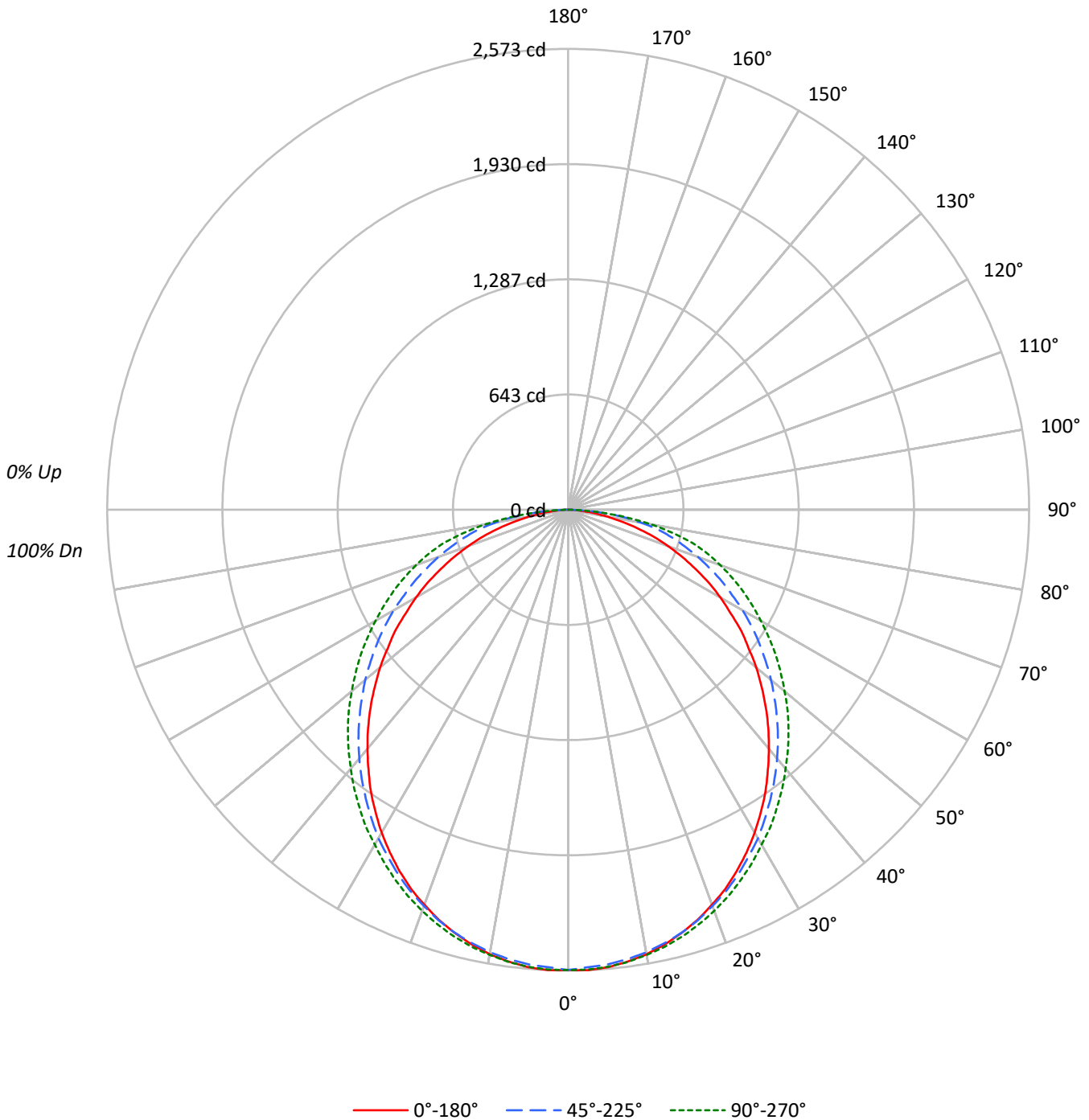
Lumens per Lamp: N/A
Luminaire Lumens: 7362.4 lumens
Efficiency: N/A
Efficacy: 149.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	59	57
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	55	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	38	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	38	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3458	3458	3458
5°	3463	3441	3459
10°	3443	3428	3448
15°	3408	3406	3435
20°	3361	3371	3413
25°	3305	3334	3386
30°	3235	3292	3354
35°	3154	3234	3335
40°	3061	3186	3316
45°	2968	3136	3309
50°	2868	3093	3301
55°	2766	3055	3319
60°	2639	3027	3342
65°	2499	3015	3423
70°	2331	3030	3544
75°	2075	3118	3734
80°	1696	3186	3645
85°	1195	2782	2837



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	243.0	3.3
10°-20°	692.0	9.4
20°-30°	1037.2	14.1
30°-40°	1235.4	16.8
40°-50°	1273.8	17.3
50°-60°	1162.3	15.8
60°-70°	929.4	12.6
70°-80°	607.1	8.2
80°-90°	182.3	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°	1972.1	26.8
0°-40°	3207.5	43.6
0°-60°	5643.6	76.7
0°-90°	7362.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7362.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2570	2570	2570	2570	2570	
5°	2564	2559	2548	2564	2561	243
15°	2446	2448	2445	2466	2466	690
25°	2226	2230	2246	2278	2281	1025
35°	1920	1934	1969	2018	2030	1200
45°	1560	1588	1648	1717	1739	1203
55°	1179	1213	1302	1388	1415	1050
65°	785	838	947	1040	1075	778
75°	399	466	600	697	718	424
85°	77	139	180	184	184	98
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2569.8	2569.8	2569.8	2569.8	2569.8
2.5°	2573.4	2569.8	2556.5	2572.2	2569.8
5°	2563.8	2558.9	2548.0	2563.8	2561.3
7.5°	2544.4	2542.0	2531.1	2549.3	2546.8
10°	2520.2	2517.8	2509.3	2527.5	2523.9
12.5°	2486.4	2485.2	2479.1	2500.9	2498.5
15°	2446.5	2447.7	2445.3	2465.8	2465.8
17.5°	2400.5	2399.3	2404.1	2429.5	2427.1
20°	2347.3	2348.5	2354.6	2383.6	2383.6
22.5°	2291.7	2290.5	2303.8	2332.8	2335.2
25°	2226.4	2230.0	2245.7	2278.4	2280.8
27.5°	2156.2	2162.3	2181.6	2219.1	2222.7
30°	2082.5	2089.7	2118.7	2153.8	2158.6
32.5°	2001.4	2017.2	2043.8	2088.5	2100.6
35°	1920.4	1933.7	1968.8	2018.4	2030.5
37.5°	1830.9	1852.7	1892.6	1947.0	1962.7
40°	1742.6	1764.4	1814.0	1870.8	1887.8
42.5°	1653.1	1676.1	1733.0	1797.1	1815.2
45°	1560.0	1587.8	1648.3	1717.2	1739.0
47.5°	1464.5	1497.1	1562.4	1637.4	1661.6
50°	1370.2	1402.8	1477.8	1555.2	1577.0
52.5°	1268.6	1309.7	1389.5	1473.0	1494.7
55°	1179.1	1213.0	1302.4	1388.3	1414.9
57.5°	1073.9	1119.8	1215.4	1302.4	1327.8
60°	980.8	1023.1	1124.7	1213.0	1242.0
62.5°	886.4	930.0	1031.6	1131.9	1158.5
65°	784.9	838.1	946.9	1040.0	1075.1
67.5°	688.1	743.7	855.0	954.2	990.4
70°	592.6	649.4	770.3	871.9	900.9
72.5°	498.2	557.5	683.3	782.4	816.3
75°	399.1	465.6	599.8	696.6	718.3
77.5°	306.0	379.7	515.2	580.5	596.2
80°	218.9	299.9	411.2	458.3	470.4
82.5°	143.9	222.5	307.2	332.6	328.9
85°	77.4	139.1	180.2	183.8	183.8
87.5°	30.2	55.6	56.8	43.5	41.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)