

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: P474577

Luminaire Tested: **24CZ2-70HE-SQR-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474577
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-70HE-SQR-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SQUARE LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6617.5 lumens
Efficiency: N/A
Efficacy: 134.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

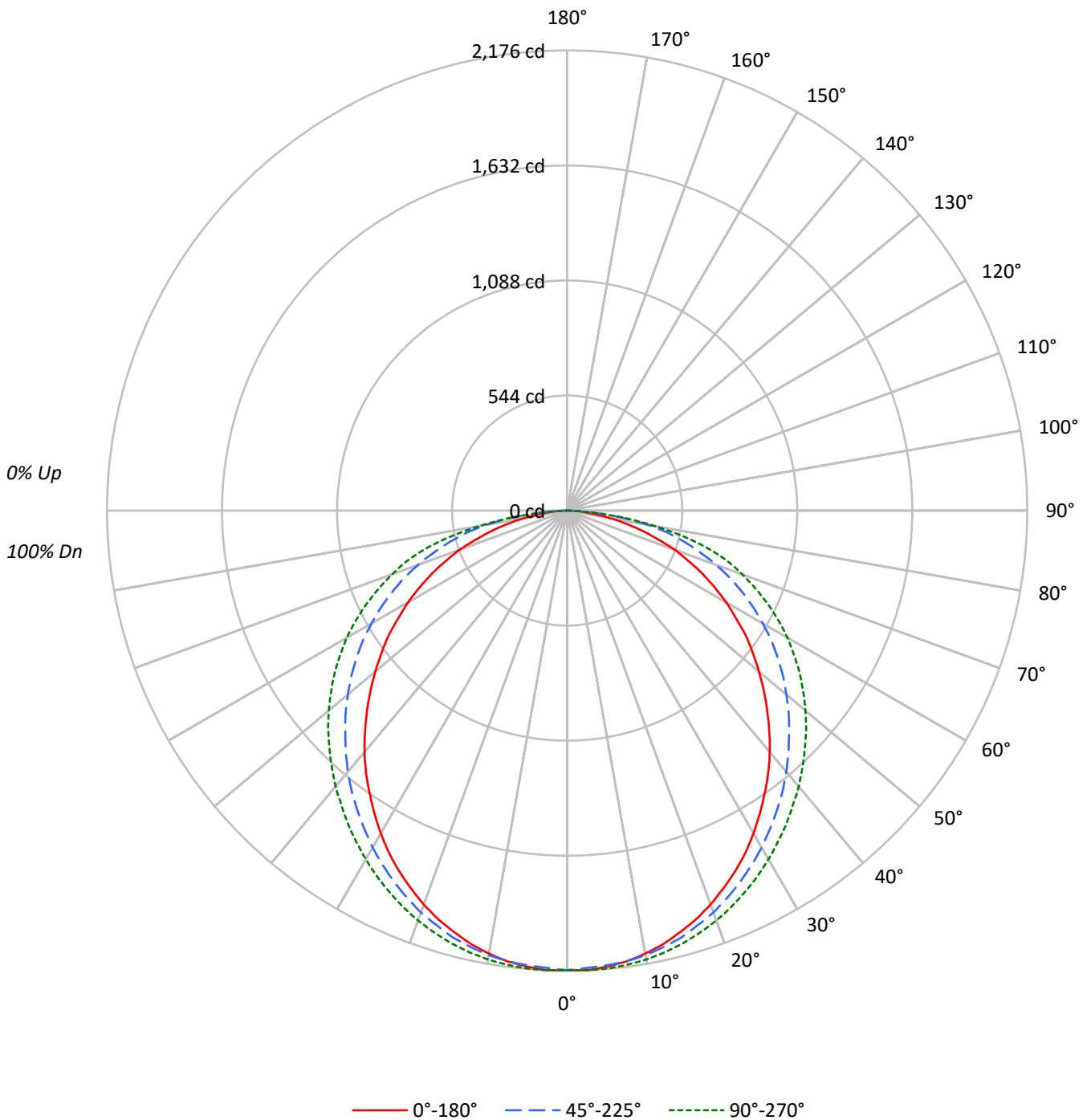
Input Watts (W): 49.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	94	105	101	96	93	96	93	90		92	90	87		89	87	84	82
2	98	89	82	76	95	87	81	75	84	78	73		80	76	71		77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61		70	64	60		68	63	59	56
4	81	69	59	53	79	67	59	52	65	57	51		62	56	51		60	55	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	39		50	43	38		49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34		46	39	34		44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30		42	35	30		41	35	30	28
9	55	42	33	28	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	25		35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5849	5849	5849
5°	5849	5831	5871
10°	5812	5833	5890
15°	5749	5820	5899
20°	5677	5792	5907
25°	5584	5751	5908
30°	5476	5716	5916
35°	5352	5682	5939
40°	5237	5664	5987
45°	5093	5649	6051
50°	4957	5665	6161
55°	4841	5704	6299
60°	4677	5747	6475
65°	4490	5816	6671
70°	4259	5898	6937
75°	3815	5979	7167
80°	3211	5996	6504
85°	2384	4539	4276



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	206.0	3.1
10°-20°	590.3	8.9
20°-30°	893.7	13.5
30°-40°	1081.1	16.3
40°-50°	1141.1	17.2
50°-60°	1076.1	16.3
60°-70°	887.2	13.4
70°-80°	582.0	8.8
80°-90°	160.0	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°	1690.0	25.5
0°-40°	2771.0	41.9
0°-60°	4988.3	75.4
0°-90°	6617.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6617.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2174	2174	2174	2174	2174	
5°	2165	2165	2159	2174	2174	206
15°	2064	2075	2089	2113	2118	582
25°	1881	1904	1937	1977	1990	866
35°	1629	1672	1730	1789	1808	1020
45°	1338	1399	1484	1564	1590	1033
55°	1032	1105	1216	1307	1343	919
65°	705	790	913	1011	1048	696
75°	367	461	575	666	689	388
85°	77	133	147	143	138	96
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2173.6	2173.6	2173.6	2173.6	2173.6
2.5°	2175.7	2173.6	2164.1	2176.8	2175.7
5°	2165.2	2165.2	2158.8	2173.6	2173.6
7.5°	2150.4	2151.4	2149.3	2166.2	2166.2
10°	2127.1	2131.3	2134.5	2153.5	2155.7
12.5°	2099.6	2107.0	2113.4	2136.6	2138.7
15°	2063.7	2075.3	2089.1	2113.4	2117.6
17.5°	2026.7	2040.4	2055.2	2086.9	2092.2
20°	1982.3	1998.1	2022.5	2054.2	2062.6
22.5°	1932.6	1954.8	1980.2	2018.2	2028.8
25°	1880.8	1904.0	1936.8	1977.0	1989.7
27.5°	1824.8	1852.2	1889.2	1935.8	1949.5
30°	1762.4	1794.1	1839.6	1889.2	1904.0
32.5°	1696.8	1733.8	1784.6	1839.6	1856.5
35°	1629.2	1671.5	1729.6	1788.8	1807.8
37.5°	1562.6	1604.9	1673.6	1735.9	1753.9
40°	1490.7	1537.2	1612.3	1678.9	1704.2
42.5°	1414.6	1469.5	1548.8	1622.8	1647.1
45°	1338.4	1398.7	1484.3	1563.6	1590.0
47.5°	1261.3	1327.9	1422.0	1502.3	1533.0
50°	1184.1	1254.9	1353.2	1439.9	1471.6
52.5°	1105.8	1179.9	1286.6	1378.6	1407.2
55°	1031.8	1104.8	1215.8	1306.7	1342.7
57.5°	946.2	1028.7	1146.0	1238.0	1272.9
60°	869.0	949.4	1067.8	1165.0	1203.1
62.5°	785.5	868.0	992.7	1090.0	1127.0
65°	705.2	789.7	913.4	1010.7	1047.7
67.5°	618.5	707.3	834.1	928.2	964.2
70°	541.3	624.8	749.6	845.8	881.7
72.5°	447.2	542.4	661.8	757.0	796.1
75°	366.9	460.9	575.1	666.0	689.3
77.5°	282.3	376.4	489.5	548.7	564.6
80°	207.2	296.0	386.9	418.7	419.7
82.5°	139.6	217.8	269.6	285.4	283.3
85°	77.2	133.2	147.0	142.7	138.5
87.5°	31.7	44.4	35.9	25.4	20.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)