

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: P474627

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474627
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-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SQUARE LENS
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6857.5 lumens
Efficiency: N/A
Efficacy: 139.1 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

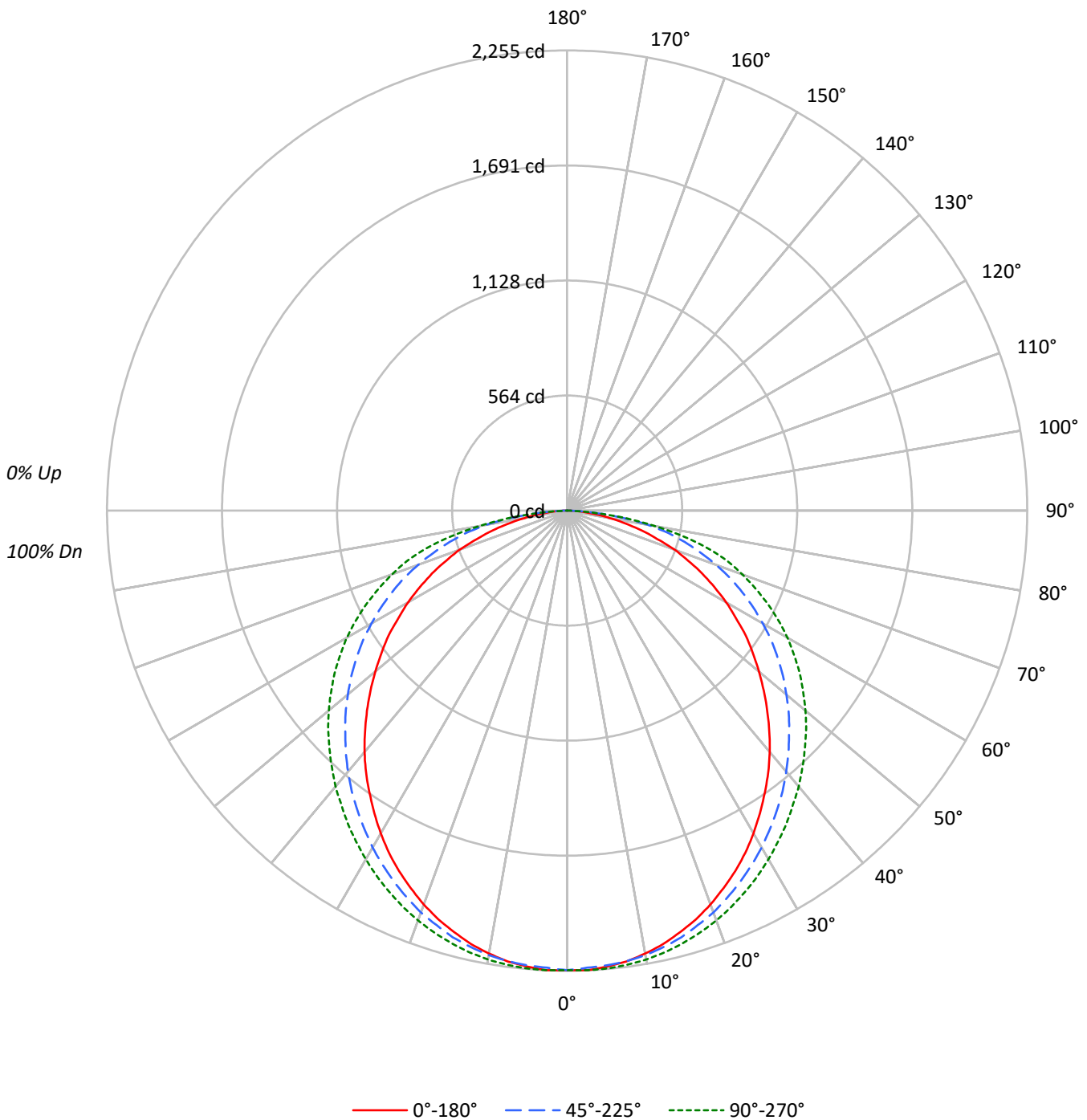
Input Watts (W): 49.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59
4	81	69	59	53	79	67	59	52	65	57	51	62	56	51	60	55	50
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6061	6061	6061
5°	6061	6043	6085
10°	6023	6044	6104
15°	5958	6031	6113
20°	5883	6002	6121
25°	5787	5959	6122
30°	5675	5923	6131
35°	5546	5888	6154
40°	5426	5869	6204
45°	5278	5854	6271
50°	5137	5871	6384
55°	5017	5911	6528
60°	4846	5955	6710
65°	4653	6027	6913
70°	4413	6112	7189
75°	3953	6197	7427
80°	3327	6214	6740
85°	2470	4702	4431



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	213.5	3.1
10°-20°	611.7	8.9
20°-30°	926.1	13.5
30°-40°	1120.3	16.3
40°-50°	1182.5	17.2
50°-60°	1115.1	16.3
60°-70°	919.4	13.4
70°-80°	603.1	8.8
80°-90°	165.8	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°	1751.3	25.5
0°-40°	2871.6	41.9
0°-60°	5169.2	75.4
0°-90°	6857.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6857.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2252	2252	2252	2252	2252	
5°	2244	2244	2237	2252	2252	213
15°	2138	2151	2165	2190	2194	603
25°	1949	1973	2007	2049	2062	898
35°	1688	1732	1792	1854	1873	1057
45°	1387	1449	1538	1620	1648	1070
55°	1069	1145	1260	1354	1391	953
65°	731	818	947	1047	1086	722
75°	380	478	596	690	714	402
85°	80	138	152	148	144	99
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2252.5	2252.5	2252.5	2252.5	2252.5
2.5°	2254.7	2252.5	2242.6	2255.8	2254.7
5°	2243.7	2243.7	2237.1	2252.5	2252.5
7.5°	2228.4	2229.5	2227.3	2244.8	2244.8
10°	2204.3	2208.6	2211.9	2231.7	2233.8
12.5°	2175.8	2183.4	2190.0	2214.1	2216.3
15°	2138.5	2150.6	2164.8	2190.0	2194.4
17.5°	2100.2	2114.4	2129.8	2162.6	2168.1
20°	2054.2	2070.6	2095.8	2128.7	2137.4
22.5°	2002.7	2025.7	2052.0	2091.4	2102.4
25°	1949.0	1973.1	2007.1	2048.7	2061.8
27.5°	1890.9	1919.4	1957.8	2006.0	2020.2
30°	1826.3	1859.2	1906.3	1957.8	1973.1
32.5°	1758.4	1796.7	1849.3	1906.3	1923.8
35°	1688.3	1732.1	1792.3	1853.7	1873.4
37.5°	1619.2	1663.1	1734.3	1798.9	1817.5
40°	1544.7	1592.9	1670.7	1739.7	1766.0
42.5°	1465.9	1522.8	1605.0	1681.7	1706.9
45°	1387.0	1449.4	1538.2	1620.3	1647.7
47.5°	1307.0	1376.0	1473.5	1556.8	1588.6
50°	1227.0	1300.4	1402.3	1492.2	1525.0
52.5°	1146.0	1222.6	1333.3	1428.6	1458.2
55°	1069.3	1144.9	1259.9	1354.1	1391.4
57.5°	980.5	1066.0	1187.6	1282.9	1319.1
60°	900.5	983.8	1106.5	1207.3	1246.7
62.5°	814.0	899.5	1028.7	1129.5	1167.9
65°	730.7	818.4	946.6	1047.4	1085.7
67.5°	640.9	732.9	864.4	961.9	999.1
70°	560.9	647.5	776.8	876.4	913.7
72.5°	463.4	562.0	685.8	784.4	825.0
75°	380.2	477.7	596.0	690.2	714.3
77.5°	292.5	390.0	507.2	568.6	585.0
80°	214.7	306.8	401.0	433.8	434.9
82.5°	144.6	225.7	279.4	295.8	293.6
85°	80.0	138.0	152.3	147.9	143.5
87.5°	32.9	46.0	37.2	26.3	20.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)