

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: P474238

Luminaire Tested: **24CZ2-70VHE-RDP-UNV-L835-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474238
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-70VHE-RDP-UNV-L835-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ RDP
INSERT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4686.0 lumens
Efficiency: N/A
Efficacy: 98.0 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

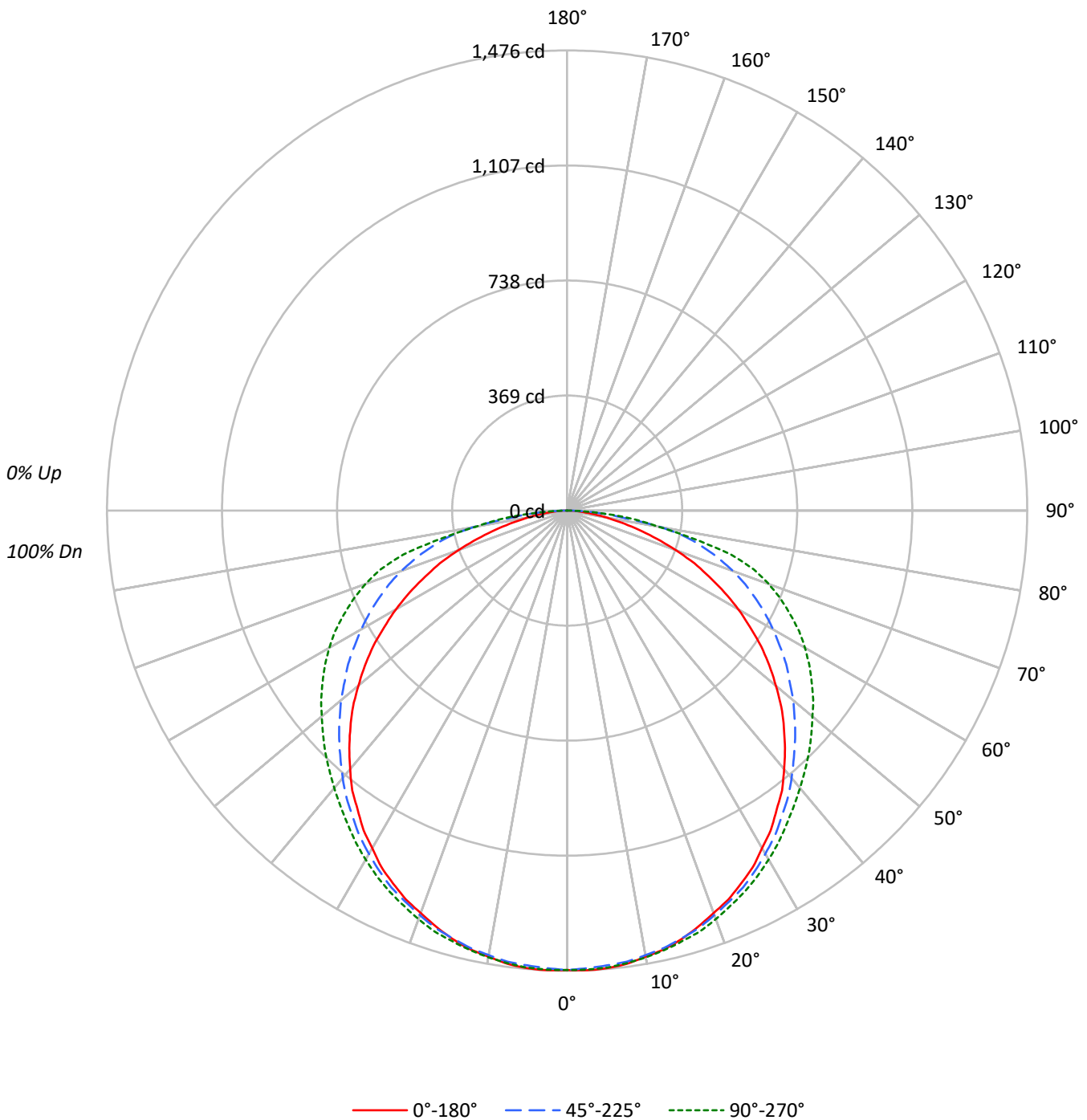
Input Watts (W): 47.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1983	1983	1983
5°	1990	1978	1987
10°	1985	1978	1988
15°	1981	1978	1991
20°	1967	1977	1997
25°	1960	1981	2001
30°	1943	1975	2008
35°	1924	1970	2016
40°	1903	1968	2041
45°	1871	1968	2087
50°	1829	1980	2151
55°	1783	2012	2247
60°	1708	2051	2370
65°	1599	2124	2516
70°	1454	2222	2706
75°	1232	2344	2828
80°	973	2359	2287
85°	718	1795	2010



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	139.8	3.0
10°-20°	402.3	8.6
20°-30°	615.2	13.1
30°-40°	752.0	16.0
40°-50°	801.6	17.1
50°-60°	766.4	16.4
60°-70°	649.2	13.9
70°-80°	436.3	9.3
80°-90°	123.1	2.6
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°	1157.3	24.7
0°-40°	1909.4	40.7
0°-60°	3477.4	74.2
0°-90°	4686.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4686.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1474	1474	1474	1474	1474	
5°	1474	1471	1464	1471	1471	140
15°	1422	1422	1420	1432	1430	401
25°	1320	1325	1334	1346	1348	608
35°	1171	1181	1199	1222	1227	734
45°	983	1000	1034	1079	1097	758
55°	760	788	858	925	958	677
65°	502	553	667	755	790	498
75°	237	323	451	528	544	254
85°	46	95	116	126	130	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1473.7	1473.7	1473.7	1473.7	1473.7
2.5°	1476.0	1476.0	1469.0	1473.7	1473.7
5°	1473.7	1471.4	1464.4	1471.4	1471.4
7.5°	1466.7	1464.4	1459.7	1466.7	1464.4
10°	1452.8	1452.8	1448.1	1455.1	1455.1
12.5°	1441.1	1438.8	1436.5	1445.8	1443.5
15°	1422.5	1422.5	1420.2	1431.8	1429.5
17.5°	1399.3	1401.6	1403.9	1413.2	1415.6
20°	1373.7	1378.4	1380.7	1394.6	1394.6
22.5°	1350.4	1352.8	1357.4	1371.4	1371.4
25°	1320.2	1324.9	1334.2	1345.8	1348.1
27.5°	1290.0	1292.3	1303.9	1320.2	1322.5
30°	1250.4	1257.4	1271.4	1290.0	1292.3
32.5°	1215.6	1222.5	1238.8	1257.4	1262.1
35°	1171.4	1180.7	1199.3	1222.5	1227.2
37.5°	1131.8	1138.8	1162.1	1187.7	1194.6
40°	1083.2	1097.0	1120.2	1150.4	1162.1
42.5°	1034.4	1048.4	1076.3	1115.6	1129.5
45°	983.2	999.5	1034.4	1078.6	1097.0
47.5°	932.1	950.7	990.2	1041.4	1062.3
50°	873.9	897.2	946.0	1004.2	1027.4
52.5°	818.1	846.0	899.5	964.6	994.9
55°	760.0	787.9	857.7	925.1	957.7
57.5°	694.9	732.1	808.8	885.6	920.5
60°	634.6	669.3	762.3	846.0	880.9
62.5°	569.5	616.0	715.8	804.2	839.1
65°	502.1	553.2	667.0	755.3	790.2
67.5°	441.6	497.4	618.4	706.5	741.4
70°	369.5	439.3	564.9	653.0	687.9
72.5°	302.1	378.8	509.1	595.1	627.7
75°	237.0	323.0	450.9	527.7	543.9
77.5°	176.7	267.2	390.5	423.0	411.4
80°	125.6	214.0	304.4	288.1	295.1
82.5°	81.4	162.8	188.4	214.0	220.7
85°	46.5	95.3	116.3	125.6	130.2
87.5°	20.9	34.9	46.5	46.5	44.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)