

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: P474288

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474288
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-L840-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ RDP
INSERT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4775.1 lumens
Efficiency: N/A
Efficacy: 99.9 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

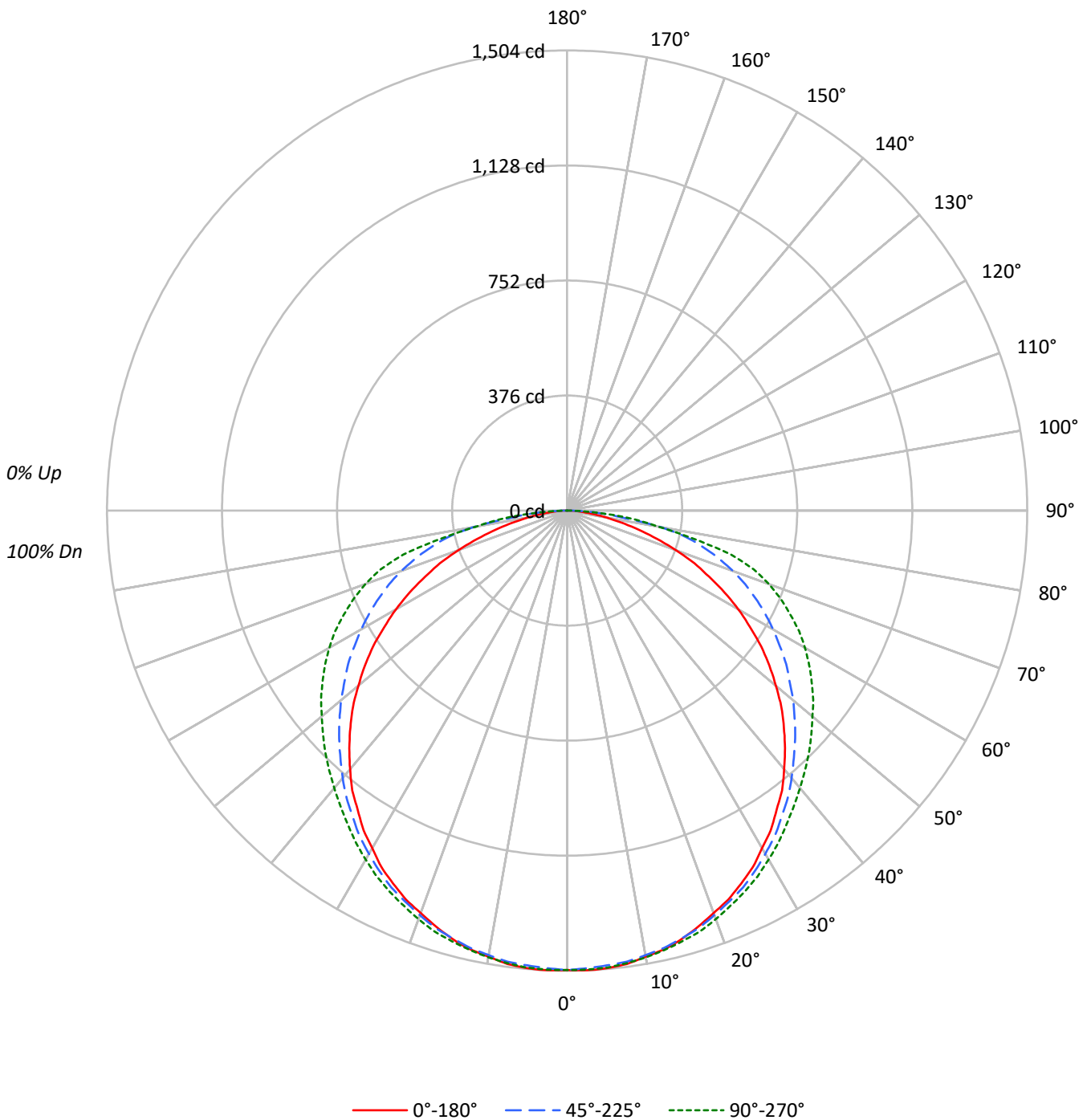
Input Watts (W): 47.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2021	2021	2021
5°	2028	2015	2025
10°	2023	2016	2026
15°	2019	2016	2029
20°	2004	2014	2035
25°	1997	2018	2039
30°	1980	2013	2046
35°	1961	2007	2054
40°	1939	2005	2080
45°	1906	2006	2127
50°	1864	2018	2191
55°	1817	2050	2289
60°	1740	2090	2416
65°	1629	2164	2564
70°	1482	2264	2758
75°	1255	2389	2882
80°	992	2404	2330
85°	732	1829	2049



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.4	3.0
10°-20°	410.0	8.6
20°-30°	626.9	13.1
30°-40°	766.3	16.0
40°-50°	816.8	17.1
50°-60°	781.0	16.4
60°-70°	661.6	13.9
70°-80°	444.6	9.3
80°-90°	125.5	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°	1179.3	24.7
0°-40°	1945.6	40.7
0°-60°	3543.4	74.2
0°-90°	4775.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4775.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1502	1502	1502	1502	1502	
5°	1502	1499	1492	1499	1499	143
15°	1450	1450	1447	1459	1457	409
25°	1345	1350	1360	1371	1374	620
35°	1194	1203	1222	1246	1250	748
45°	1002	1018	1054	1099	1118	773
55°	774	803	874	943	976	690
65°	512	564	680	770	805	508
75°	242	329	460	538	554	259
85°	47	97	118	128	133	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1501.7	1501.7	1501.7	1501.7	1501.7
2.5°	1504.1	1504.1	1497.0	1501.7	1501.7
5°	1501.7	1499.3	1492.2	1499.3	1499.3
7.5°	1494.6	1492.2	1487.5	1494.6	1492.2
10°	1480.4	1480.4	1475.6	1482.7	1482.7
12.5°	1468.5	1466.2	1463.8	1473.3	1470.9
15°	1449.6	1449.6	1447.2	1459.0	1456.7
17.5°	1425.9	1428.2	1430.6	1440.1	1442.5
20°	1399.8	1404.5	1406.9	1421.1	1421.1
22.5°	1376.1	1378.5	1383.2	1397.4	1397.4
25°	1345.3	1350.0	1359.5	1371.4	1373.7
27.5°	1314.5	1316.9	1328.7	1345.3	1347.7
30°	1274.2	1281.3	1295.5	1314.5	1316.9
32.5°	1238.7	1245.8	1262.4	1281.3	1286.1
35°	1193.6	1203.1	1222.1	1245.8	1250.5
37.5°	1153.3	1160.5	1184.2	1210.2	1217.3
40°	1103.8	1117.8	1141.5	1172.3	1184.2
42.5°	1054.1	1068.3	1096.7	1136.8	1151.0
45°	1001.9	1018.5	1054.1	1099.1	1117.8
47.5°	949.8	968.7	1009.0	1061.2	1082.5
50°	890.5	914.2	964.0	1023.3	1046.9
52.5°	833.7	862.1	916.6	983.0	1013.8
55°	774.4	802.9	874.0	942.7	975.9
57.5°	708.1	746.0	824.2	902.4	937.9
60°	646.7	682.0	776.8	862.1	897.7
62.5°	580.3	627.7	729.4	819.5	855.0
65°	511.6	563.8	679.6	769.7	805.2
67.5°	450.0	506.9	630.1	719.9	755.5
70°	376.6	447.6	575.6	665.4	701.0
72.5°	307.8	386.0	518.7	606.4	639.6
75°	241.5	329.2	459.5	537.7	554.3
77.5°	180.1	272.3	397.9	431.1	419.2
80°	128.0	218.0	310.2	293.6	300.7
82.5°	82.9	165.9	191.9	218.0	224.9
85°	47.4	97.2	118.5	128.0	132.7
87.5°	21.3	35.5	47.4	47.4	45.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)