

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: P474588

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474588
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-70VHE-SQR-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SQUARE LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6412.1 lumens
Efficiency: N/A
Efficacy: 134.1 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

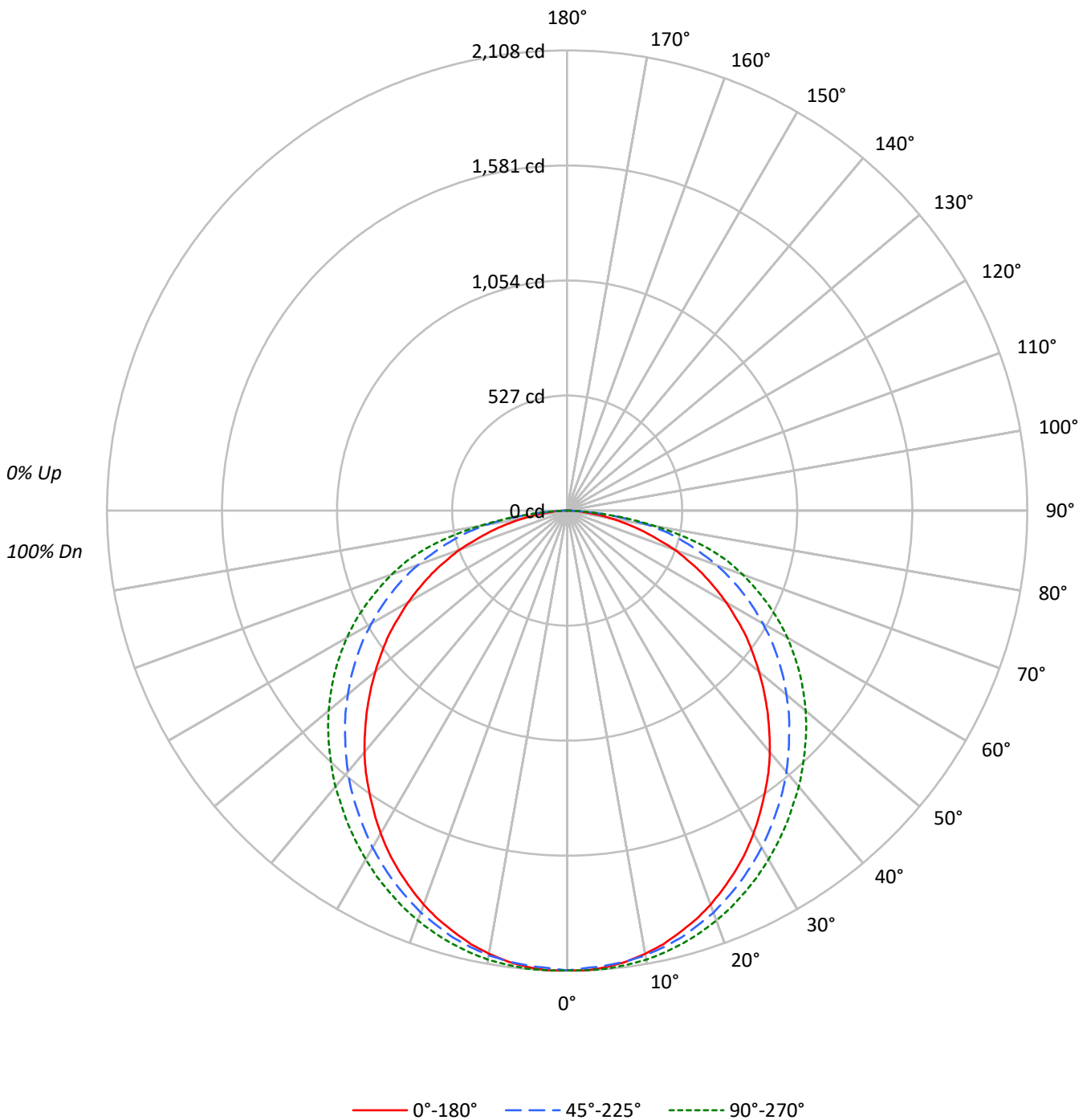
Input Watts (W): 47.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	5668	5668	5668
5°	5667	5650	5689
10°	5632	5652	5708
15°	5571	5639	5716
20°	5501	5612	5723
25°	5411	5572	5724
30°	5306	5539	5733
35°	5186	5505	5754
40°	5074	5488	5801
45°	4936	5474	5863
50°	4803	5489	5970
55°	4691	5527	6104
60°	4532	5568	6274
65°	4351	5636	6464
70°	4127	5714	6722
75°	3696	5794	6944
80°	3112	5810	6303
85°	2309	4397	4143



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	199.6	3.1
10°-20°	572.0	8.9
20°-30°	865.9	13.5
30°-40°	1047.5	16.3
40°-50°	1105.7	17.2
50°-60°	1042.7	16.3
60°-70°	859.6	13.4
70°-80°	563.9	8.8
80°-90°	155.1	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°	1637.5	25.5
0°-40°	2685.0	41.9
0°-60°	4833.5	75.4
0°-90°	6412.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6412.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2106	2106	2106	2106	2106	
5°	2098	2098	2092	2106	2106	199
15°	2000	2011	2024	2048	2052	564
25°	1822	1845	1877	1916	1928	839
35°	1579	1620	1676	1733	1752	988
45°	1297	1355	1438	1515	1541	1001
55°	1000	1070	1178	1266	1301	891
65°	683	765	885	979	1015	675
75°	356	447	557	645	668	376
85°	75	129	142	138	134	93
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2106.2	2106.2	2106.2	2106.2	2106.2
2.5°	2108.2	2106.2	2097.0	2109.2	2108.2
5°	2098.0	2098.0	2091.8	2106.2	2106.2
7.5°	2083.6	2084.7	2082.6	2099.0	2099.0
10°	2061.1	2065.2	2068.3	2086.7	2088.8
12.5°	2034.5	2041.6	2047.8	2070.3	2072.4
15°	1999.6	2010.9	2024.2	2047.8	2051.9
17.5°	1963.8	1977.1	1991.4	2022.2	2027.3
20°	1920.8	1936.1	1959.7	1990.4	1998.6
22.5°	1872.6	1894.1	1918.7	1955.6	1965.8
25°	1822.4	1845.0	1876.7	1915.6	1927.9
27.5°	1768.1	1794.8	1830.6	1875.7	1889.0
30°	1707.7	1738.4	1782.5	1830.6	1845.0
32.5°	1644.2	1680.0	1729.2	1782.5	1798.9
35°	1578.6	1619.6	1675.9	1733.3	1751.7
37.5°	1514.1	1555.0	1621.6	1682.1	1699.5
40°	1444.4	1489.5	1562.2	1626.8	1651.3
42.5°	1370.7	1423.9	1500.8	1572.5	1596.0
45°	1296.9	1355.3	1438.3	1515.1	1540.7
47.5°	1222.1	1286.7	1377.8	1455.7	1485.4
50°	1147.3	1216.0	1311.2	1395.2	1426.0
52.5°	1071.5	1143.2	1246.7	1335.8	1363.5
55°	999.8	1070.5	1178.1	1266.2	1301.0
57.5°	916.8	996.7	1110.5	1199.6	1233.4
60°	842.1	919.9	1034.6	1128.9	1165.8
62.5°	761.1	841.0	961.9	1056.2	1092.0
65°	683.3	765.2	885.1	979.3	1015.2
67.5°	599.3	685.3	808.3	899.4	934.3
70°	524.5	605.4	726.3	819.5	854.4
72.5°	433.3	525.5	641.3	733.5	771.4
75°	355.5	446.6	557.3	645.4	667.9
77.5°	273.5	364.7	474.3	531.7	547.0
80°	200.8	286.8	374.9	405.7	406.7
82.5°	135.2	211.0	261.2	276.6	274.5
85°	74.8	129.1	142.4	138.3	134.2
87.5°	30.7	43.0	34.8	24.6	19.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)