

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: P475245

Luminaire Tested: **22CZ2-70VHE-SQR-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475245
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-70VHE-SQR-UNV-L830-CD1-U
Description: 2'X2' 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: 6392.7 lumens
Efficiency: N/A
Efficacy: 129.7 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

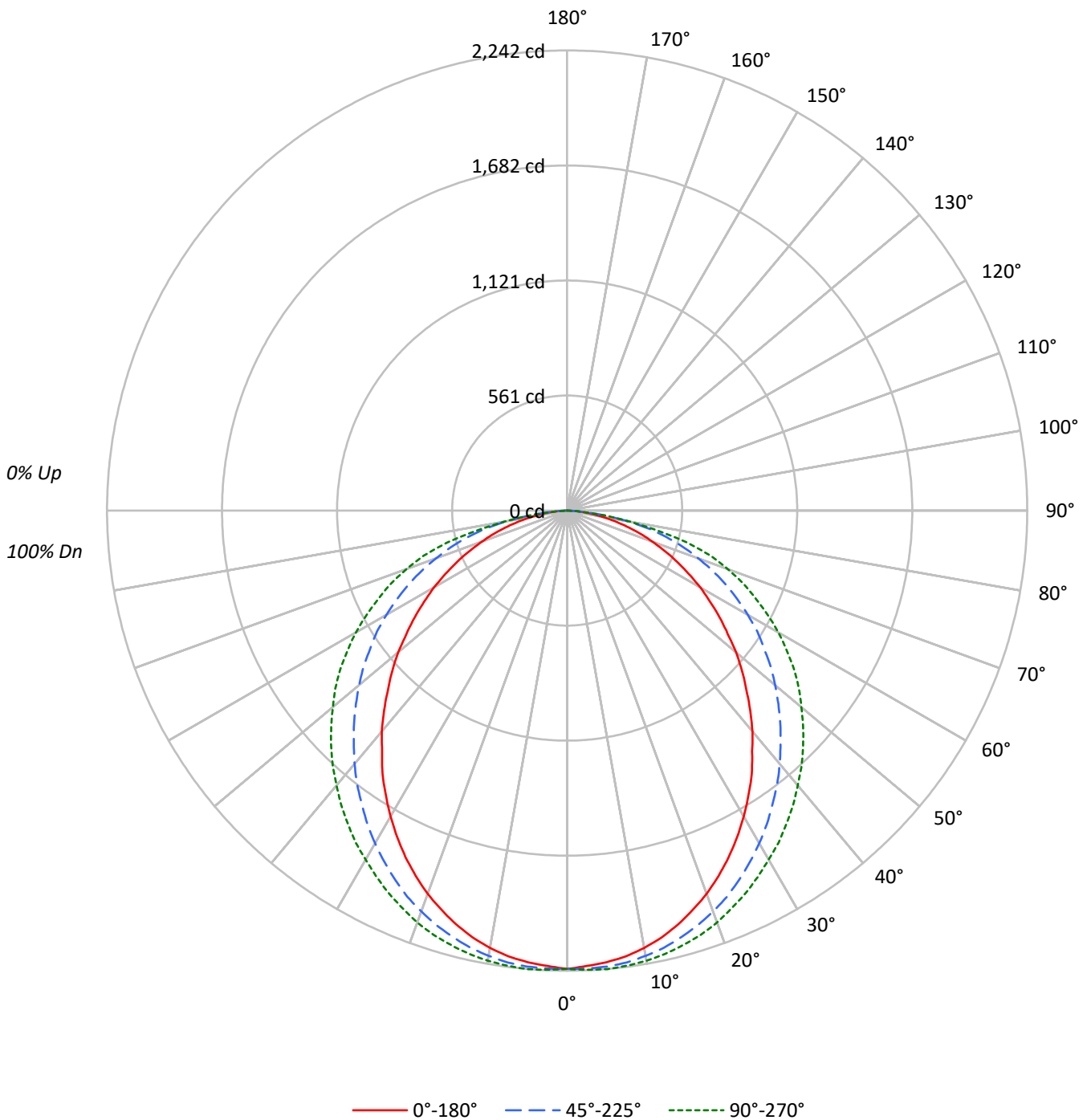
Input Watts (W): 49.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6009	6009	6009
5°	5967	6024	6057
10°	5912	6019	6085
15°	5816	5993	6103
20°	5691	5952	6117
25°	5532	5891	6108
30°	5345	5817	6100
35°	5153	5731	6120
40°	4934	5660	6140
45°	4700	5589	6189
50°	4496	5538	6237
55°	4256	5494	6335
60°	4033	5471	6402
65°	3767	5428	6452
70°	3460	5346	6541
75°	3124	5205	6308
80°	2679	4610	4750
85°	2155	2717	2155



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	211.7	3.3
10°-20°	605.3	9.5
20°-30°	909.1	14.2
30°-40°	1084.2	17.0
40°-50°	1121.0	17.5
50°-60°	1030.6	16.1
60°-70°	820.5	12.8
70°-80°	501.3	7.8
80°-90°	108.9	1.7
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°	1726.1	27.0
0°-40°	2810.4	44.0
0°-60°	4962.0	77.6
0°-90°	6392.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6392.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2233	2233	2233	2233	2233	
5°	2209	2215	2230	2239	2242	209
15°	2088	2112	2151	2182	2191	588
25°	1863	1908	1984	2039	2057	857
35°	1569	1635	1744	1836	1863	979
45°	1235	1323	1468	1587	1626	955
55°	907	1007	1171	1305	1350	811
65°	592	692	852	971	1013	586
75°	300	388	501	589	607	320
85°	70	85	88	76	70	80
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2233.0	2233.0	2233.0	2233.0	2233.0
2.5°	2220.9	2223.9	2233.0	2239.4	2239.4
5°	2208.8	2214.9	2230.0	2239.4	2242.4
7.5°	2190.7	2199.8	2220.9	2233.0	2236.4
10°	2163.5	2175.6	2202.8	2220.9	2227.0
12.5°	2129.9	2148.1	2181.6	2205.8	2211.9
15°	2087.6	2111.8	2151.1	2181.6	2190.7
17.5°	2039.0	2069.2	2117.9	2154.4	2166.5
20°	1987.2	2017.8	2078.6	2120.9	2136.0
22.5°	1926.8	1966.1	2035.9	2084.6	2096.7
25°	1863.0	1908.3	1984.2	2039.0	2057.1
27.5°	1793.2	1847.9	1929.8	1996.6	2011.8
30°	1720.3	1778.1	1872.1	1944.9	1963.1
32.5°	1644.5	1711.3	1811.3	1893.2	1917.7
35°	1568.6	1635.4	1744.5	1835.8	1863.0
37.5°	1480.6	1559.5	1681.1	1775.1	1808.3
40°	1404.7	1480.6	1611.2	1714.3	1747.9
42.5°	1319.8	1401.7	1538.4	1650.5	1690.1
45°	1234.9	1322.8	1468.5	1587.0	1626.3
47.5°	1156.0	1243.9	1395.7	1520.2	1559.5
50°	1074.0	1165.0	1322.8	1450.4	1489.7
52.5°	986.1	1086.1	1250.0	1377.5	1423.2
55°	907.2	1007.2	1171.1	1304.7	1350.3
57.5°	825.2	928.3	1098.5	1225.8	1268.4
60°	749.4	849.4	1016.6	1140.8	1189.5
62.5°	667.5	770.5	934.4	1055.9	1101.6
65°	591.6	692.0	852.4	971.0	1013.3
67.5°	515.7	616.1	767.5	880.0	928.3
70°	439.8	540.2	679.5	789.0	831.3
72.5°	373.3	461.3	594.6	695.0	734.3
75°	300.5	388.5	500.6	588.6	606.7
77.5°	233.7	312.6	406.6	445.9	452.2
80°	172.9	233.7	297.5	306.5	306.5
82.5°	115.2	160.8	185.0	188.0	185.0
85°	69.8	84.9	88.0	75.9	69.8
87.5°	24.2	24.2	15.1	9.1	3.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)