

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: P474575

Luminaire Tested: **24CZ2-60HE-SQR-UNV-L830-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474575  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-60HE-SQR-UNV-L830-CD1-U  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SQUARE LENS  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5667.7 lumens  
Efficiency: N/A  
Efficacy: 128.5 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

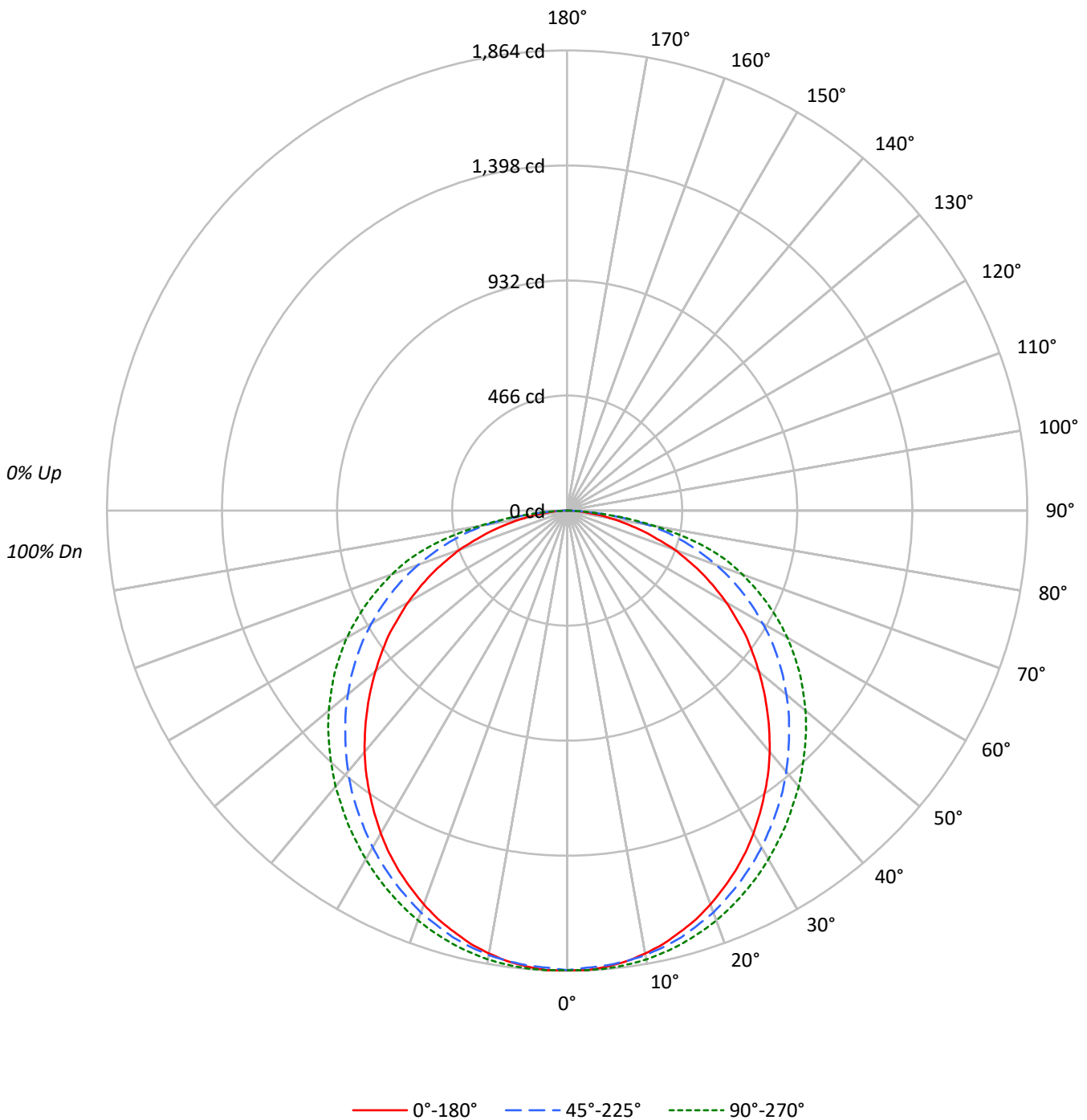
Input Watts (W): 44.1  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	5010	5010	5010
5°	5009	4995	5029
10°	4978	4995	5045
15°	4924	4985	5053
20°	4862	4960	5059
25°	4783	4925	5060
30°	4690	4896	5067
35°	4584	4867	5087
40°	4485	4851	5127
45°	4362	4838	5182
50°	4245	4852	5277
55°	4146	4885	5395
60°	4006	4922	5546
65°	3845	4981	5713
70°	3648	5051	5942
75°	3267	5122	6138
80°	2751	5136	5571
85°	2041	3887	3662



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	176.4	3.1
10°-20°	505.6	8.9
20°-30°	765.4	13.5
30°-40°	925.9	16.3
40°-50°	977.3	17.2
50°-60°	921.6	16.3
60°-70°	759.8	13.4
70°-80°	498.5	8.8
80°-90°	137.1	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°	1447.4	25.5
0°-40°	2373.3	41.9
0°-60°	4272.3	75.4
0°-90°	5667.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5667.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1862	1862	1862	1862	1862	
5°	1854	1854	1849	1862	1862	176
15°	1768	1777	1789	1810	1814	499
25°	1611	1631	1659	1693	1704	742
35°	1395	1432	1481	1532	1548	873
45°	1146	1198	1271	1339	1362	885
55°	884	946	1041	1119	1150	787
65°	604	676	782	866	897	596
75°	314	395	493	570	590	332
85°	66	114	126	122	119	82
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1861.7	1861.7	1861.7	1861.7	1861.7
2.5°	1863.5	1861.7	1853.5	1864.4	1863.5
5°	1854.4	1854.4	1849.0	1861.7	1861.7
7.5°	1841.7	1842.6	1840.8	1855.3	1855.3
10°	1821.8	1825.4	1828.1	1844.4	1846.3
12.5°	1798.3	1804.6	1810.0	1830.0	1831.8
15°	1767.5	1777.4	1789.2	1810.0	1813.7
17.5°	1735.8	1747.6	1760.2	1787.4	1791.9
20°	1697.8	1711.3	1732.2	1759.3	1766.6
22.5°	1655.2	1674.2	1695.9	1728.5	1737.6
25°	1610.8	1630.8	1658.8	1693.2	1704.1
27.5°	1562.8	1586.4	1618.1	1657.9	1669.7
30°	1509.4	1536.6	1575.5	1618.1	1630.8
32.5°	1453.3	1485.0	1528.4	1575.5	1590.0
35°	1395.3	1431.6	1481.4	1532.1	1548.4
37.5°	1338.3	1374.5	1433.4	1486.8	1502.2
40°	1276.7	1316.6	1380.8	1437.9	1459.6
42.5°	1211.5	1258.6	1326.5	1389.9	1410.7
45°	1146.3	1197.9	1271.3	1339.2	1361.8
47.5°	1080.2	1137.3	1217.9	1286.7	1312.9
50°	1014.1	1074.8	1159.0	1233.3	1260.4
52.5°	947.1	1010.5	1102.0	1180.7	1205.2
55°	883.7	946.2	1041.3	1119.2	1149.9
57.5°	810.4	881.0	981.5	1060.3	1090.2
60°	744.3	813.1	914.5	997.8	1030.4
62.5°	672.8	743.4	850.2	933.5	965.2
65°	603.9	676.4	782.3	865.6	897.3
67.5°	529.7	605.8	714.4	795.0	825.8
70°	463.6	535.1	642.0	724.4	755.2
72.5°	383.0	464.5	566.8	648.3	681.8
75°	314.2	394.8	492.6	570.4	590.4
77.5°	241.8	322.3	419.2	469.9	483.5
80°	177.5	253.5	331.4	358.6	359.5
82.5°	119.5	186.5	230.9	244.5	242.7
85°	66.1	114.1	125.9	122.2	118.6
87.5°	27.2	38.0	30.8	21.7	17.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)