

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: P474625

Luminaire Tested: **24CZ2-60HE-SQR-UNV-L835-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474625  
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-L835-CD1-U  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SQUARE LENS  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

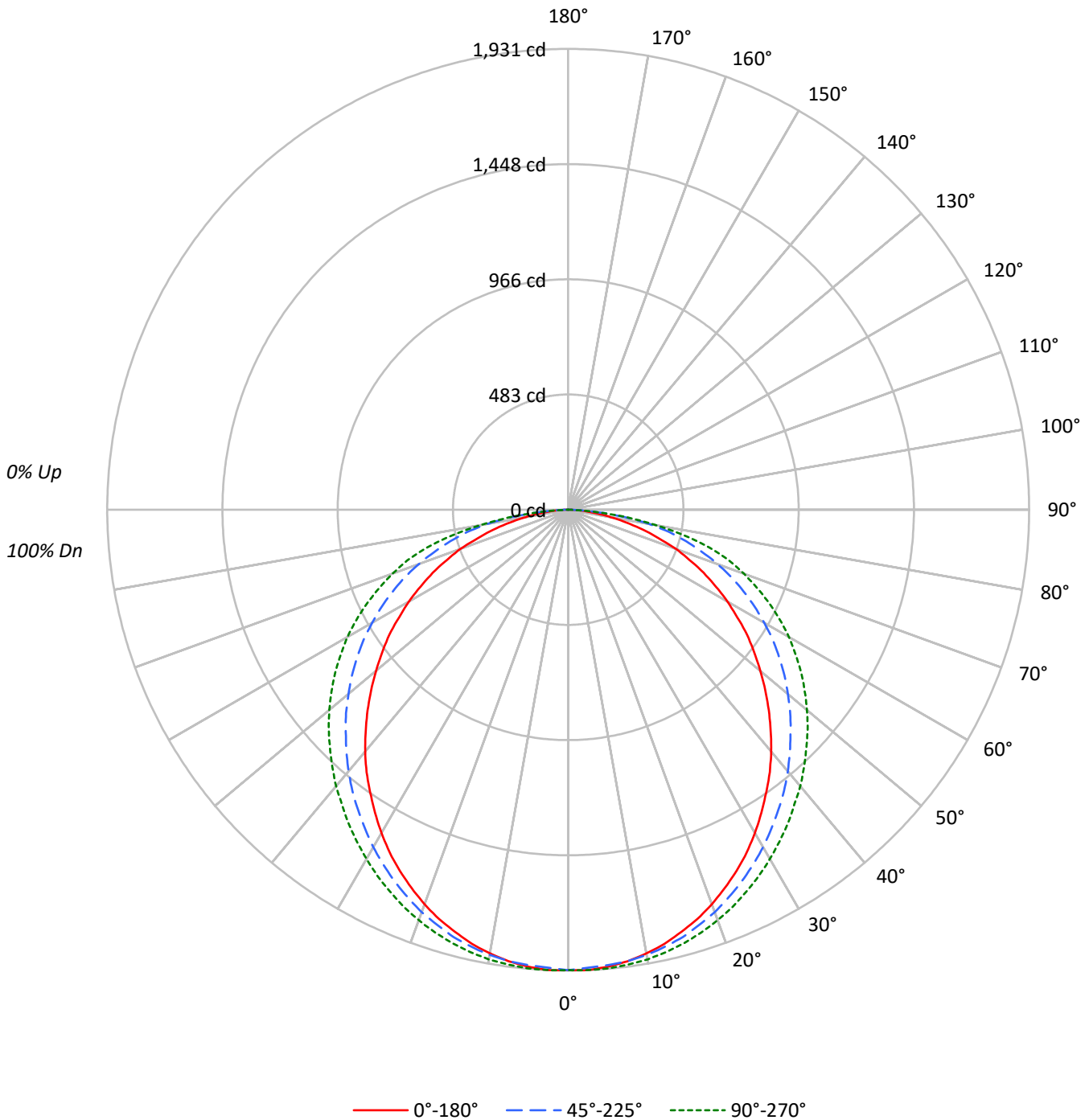
Lumens per Lamp: N/A  
Luminaire Lumens: 5873.2 lumens  
Efficiency: N/A  
Efficacy: 133.2 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

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°	5191	5191	5191
5°	5191	5176	5211
10°	5159	5177	5228
15°	5103	5165	5236
20°	5038	5140	5242
25°	4956	5104	5243
30°	4860	5073	5251
35°	4750	5043	5271
40°	4647	5026	5313
45°	4521	5014	5370
50°	4400	5028	5468
55°	4297	5063	5591
60°	4151	5100	5747
65°	3985	5162	5921
70°	3780	5235	6157
75°	3385	5307	6361
80°	2850	5322	5773
85°	2115	4026	3795



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	182.8	3.1
10°-20°	523.9	8.9
20°-30°	793.1	13.5
30°-40°	959.5	16.3
40°-50°	1012.8	17.2
50°-60°	955.1	16.3
60°-70°	787.4	13.4
70°-80°	516.5	8.8
80°-90°	142.0	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°	1499.9	25.5
0°-40°	2459.4	41.9
0°-60°	4427.3	75.4
0°-90°	5873.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5873.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1929	1929	1929	1929	1929	
5°	1922	1922	1916	1929	1929	182
15°	1832	1842	1854	1876	1879	517
25°	1669	1690	1719	1755	1766	769
35°	1446	1484	1535	1588	1604	905
45°	1188	1241	1317	1388	1411	917
55°	916	980	1079	1160	1192	816
65°	626	701	811	897	930	618
75°	326	409	510	591	612	344
85°	68	118	130	127	123	85
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1929.2	1929.2	1929.2	1929.2	1929.2
2.5°	1931.0	1929.2	1920.7	1932.0	1931.0
5°	1921.7	1921.7	1916.0	1929.2	1929.2
7.5°	1908.5	1909.5	1907.6	1922.6	1922.6
10°	1887.9	1891.6	1894.5	1911.3	1913.2
12.5°	1863.5	1870.1	1875.7	1896.3	1898.2
15°	1831.6	1841.9	1854.1	1875.7	1879.4
17.5°	1798.7	1810.9	1824.1	1852.2	1856.9
20°	1759.3	1773.4	1795.0	1823.1	1830.6
22.5°	1715.2	1734.9	1757.5	1791.2	1800.6
25°	1669.3	1689.9	1719.0	1754.6	1765.9
27.5°	1619.5	1643.9	1676.8	1718.1	1730.2
30°	1564.2	1592.3	1632.7	1676.8	1689.9
32.5°	1506.0	1538.8	1583.9	1632.7	1647.7
35°	1445.9	1483.5	1535.1	1587.6	1604.5
37.5°	1386.8	1424.4	1485.3	1540.7	1556.7
40°	1323.0	1364.3	1430.9	1490.0	1512.6
42.5°	1255.5	1304.3	1374.6	1440.3	1461.9
45°	1187.9	1241.4	1317.4	1387.8	1411.2
47.5°	1119.4	1178.5	1262.0	1333.3	1360.6
50°	1050.9	1113.8	1201.0	1278.0	1306.1
52.5°	981.5	1047.2	1141.9	1223.6	1248.9
55°	915.8	980.5	1079.1	1159.8	1191.7
57.5°	839.8	913.0	1017.1	1098.8	1129.7
60°	771.3	842.6	947.7	1034.0	1067.8
62.5°	697.2	770.4	881.1	967.4	1000.2
65°	625.9	700.9	810.7	897.0	929.9
67.5°	548.9	627.7	740.3	823.8	855.7
70°	480.4	554.5	665.3	750.7	782.6
72.5°	396.9	481.4	587.4	671.8	706.5
75°	325.6	409.1	510.4	591.1	611.8
77.5°	250.5	334.0	434.4	487.0	501.1
80°	183.9	262.7	343.4	371.6	372.5
82.5°	123.9	193.3	239.3	253.3	251.5
85°	68.5	118.2	130.4	126.7	122.9
87.5°	28.1	39.4	31.9	22.5	17.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)