

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: P474626

Luminaire Tested: **24CZ2-65HE-SQR-UNV-L835-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474626  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-65HE-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: 6438.5 lumens  
Efficiency: N/A  
Efficacy: 131.7 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

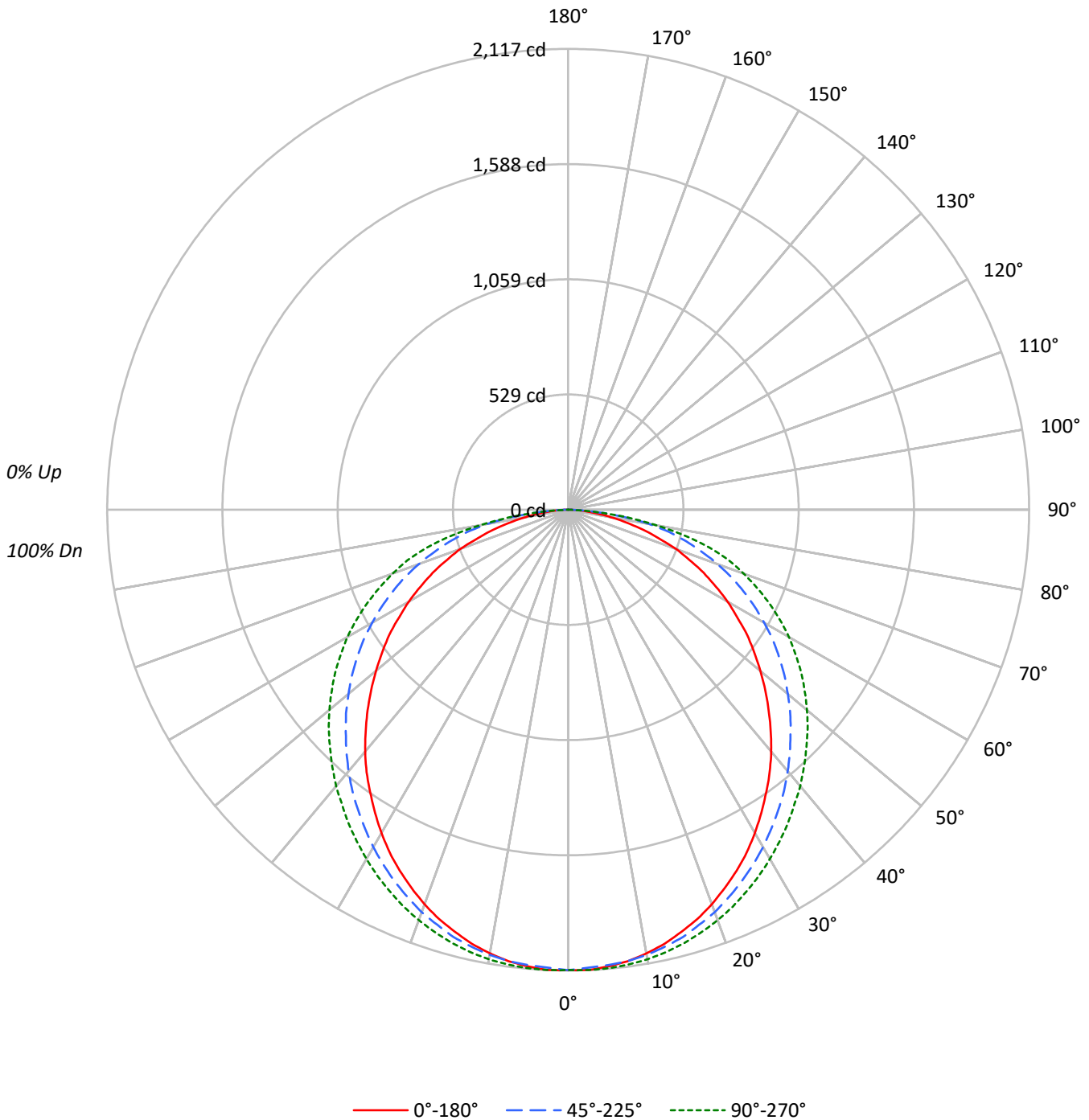
Input Watts (W): 48.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	5691	5691	5691
5°	5690	5674	5713
10°	5655	5675	5731
15°	5594	5663	5740
20°	5523	5635	5747
25°	5433	5595	5748
30°	5328	5561	5756
35°	5207	5528	5778
40°	5095	5510	5825
45°	4956	5496	5887
50°	4823	5512	5994
55°	4710	5550	6129
60°	4550	5591	6300
65°	4369	5659	6491
70°	4144	5738	6750
75°	3711	5818	6973
80°	3124	5835	6329
85°	2319	4415	4159



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	200.4	3.1
10°-20°	574.4	8.9
20°-30°	869.5	13.5
30°-40°	1051.8	16.3
40°-50°	1110.3	17.2
50°-60°	1047.0	16.3
60°-70°	863.2	13.4
70°-80°	566.3	8.8
80°-90°	155.7	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°	1644.3	25.5
0°-40°	2696.1	41.9
0°-60°	4853.3	75.4
0°-90°	6438.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6438.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2115	2115	2115	2115	2115	
5°	2107	2107	2100	2115	2115	200
15°	2008	2019	2033	2056	2060	566
25°	1830	1852	1884	1924	1936	843
35°	1585	1626	1683	1740	1759	992
45°	1302	1361	1444	1521	1547	1005
55°	1004	1075	1183	1271	1306	894
65°	686	768	889	983	1019	677
75°	357	448	560	648	671	377
85°	75	130	143	139	135	93
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2114.8	2114.8	2114.8	2114.8	2114.8
2.5°	2116.9	2114.8	2105.6	2117.9	2116.9
5°	2106.6	2106.6	2100.4	2114.8	2114.8
7.5°	2092.2	2093.2	2091.2	2107.6	2107.6
10°	2069.6	2073.7	2076.8	2095.3	2097.4
12.5°	2042.8	2050.0	2056.2	2078.8	2080.9
15°	2007.9	2019.2	2032.6	2056.2	2060.3
17.5°	1971.9	1985.2	1999.6	2030.5	2035.6
20°	1928.7	1944.1	1967.8	1998.6	2006.8
22.5°	1880.3	1901.9	1926.6	1963.6	1973.9
25°	1829.9	1852.5	1884.4	1923.5	1935.9
27.5°	1775.4	1802.1	1838.1	1883.4	1896.8
30°	1714.7	1745.6	1789.8	1838.1	1852.5
32.5°	1650.9	1686.9	1736.3	1789.8	1806.3
35°	1585.1	1626.3	1682.8	1740.4	1758.9
37.5°	1520.3	1561.4	1628.3	1689.0	1706.5
40°	1450.4	1495.6	1568.6	1633.5	1658.1
42.5°	1376.3	1429.8	1506.9	1578.9	1602.6
45°	1302.2	1360.9	1444.2	1521.3	1547.0
47.5°	1227.1	1292.0	1383.5	1461.7	1491.5
50°	1152.1	1221.0	1316.6	1401.0	1431.8
52.5°	1075.9	1147.9	1251.8	1341.3	1369.1
55°	1003.9	1074.9	1182.9	1271.4	1306.4
57.5°	920.6	1000.8	1115.0	1204.5	1238.5
60°	845.5	923.7	1038.9	1133.5	1170.6
62.5°	764.3	844.5	965.9	1060.5	1096.5
65°	686.1	768.4	888.7	983.4	1019.4
67.5°	601.7	688.1	811.6	903.1	938.1
70°	526.7	607.9	729.3	822.9	857.9
72.5°	435.1	527.7	643.9	736.5	774.6
75°	356.9	448.5	559.6	648.0	670.7
77.5°	274.6	366.2	476.3	533.9	549.3
80°	201.6	288.0	376.5	407.3	408.4
82.5°	135.8	211.9	262.3	277.7	275.7
85°	75.1	129.6	143.0	138.9	134.7
87.5°	30.9	43.2	35.0	24.7	19.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)