

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: P474628

Luminaire Tested: **24CZ2-75HE-SQR-UNV-L835-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474628  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-75HE-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: 7398.1 lumens  
Efficiency: N/A  
Efficacy: 133.5 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

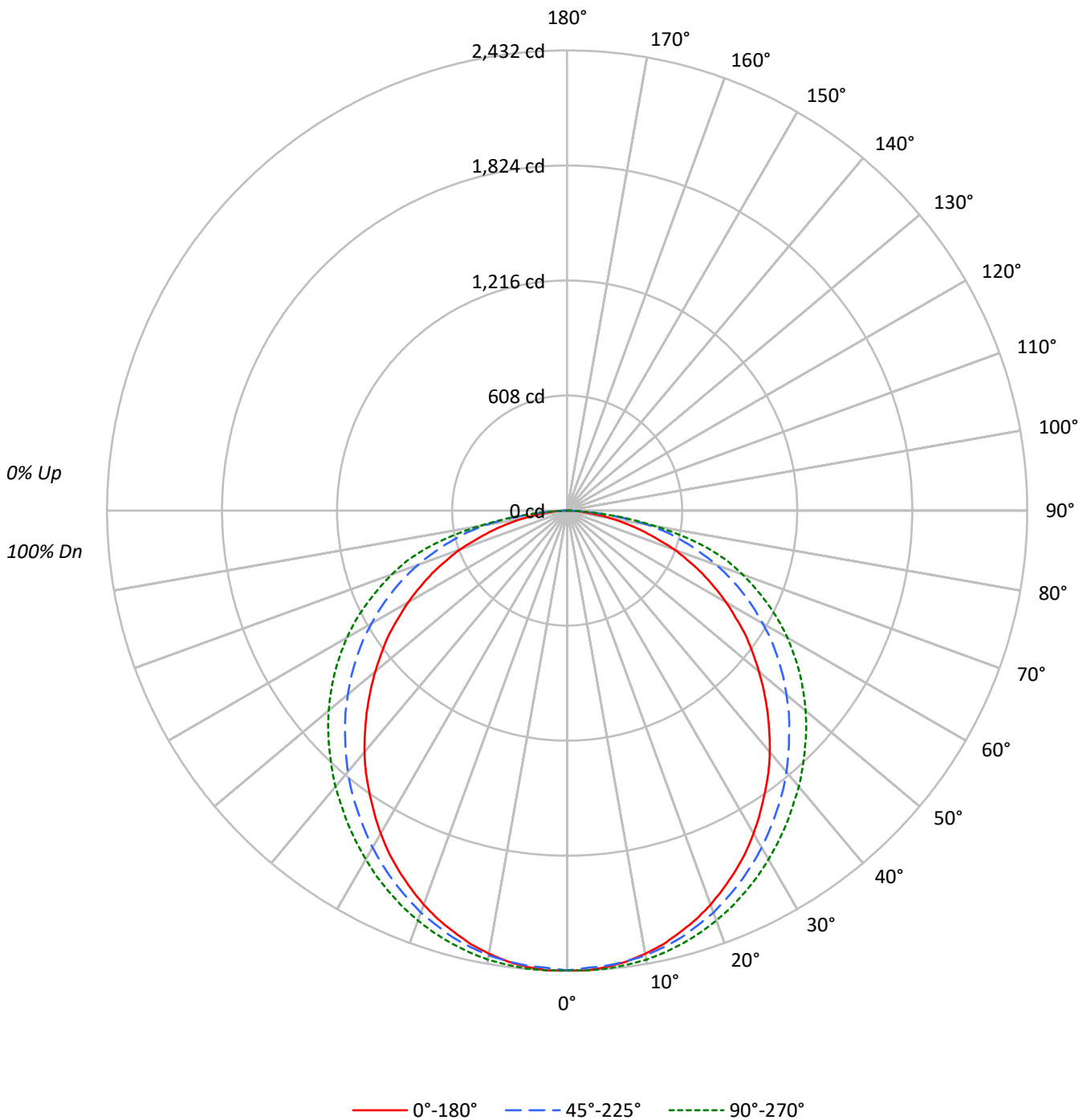
Input Watts (W): 55.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	6539	6539	6539
5°	6539	6519	6564
10°	6498	6521	6585
15°	6427	6506	6595
20°	6346	6475	6603
25°	6243	6429	6605
30°	6122	6390	6614
35°	5983	6352	6639
40°	5854	6332	6693
45°	5694	6315	6765
50°	5542	6334	6887
55°	5412	6377	7042
60°	5229	6424	7239
65°	5019	6502	7458
70°	4761	6593	7755
75°	4264	6685	8012
80°	3591	6704	7271
85°	2665	5073	4780



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	230.3	3.1
10°-20°	660.0	8.9
20°-30°	999.1	13.5
30°-40°	1208.6	16.3
40°-50°	1275.7	17.2
50°-60°	1203.0	16.3
60°-70°	991.8	13.4
70°-80°	650.7	8.8
80°-90°	178.9	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°	1889.3	25.5
0°-40°	3097.9	41.9
0°-60°	5576.7	75.4
0°-90°	7398.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7398.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2430	2430	2430	2430	2430	
5°	2421	2421	2414	2430	2430	230
15°	2307	2320	2336	2363	2367	651
25°	2103	2129	2165	2210	2224	968
35°	1821	1869	1934	2000	2021	1140
45°	1496	1564	1659	1748	1778	1155
55°	1154	1235	1359	1461	1501	1028
65°	788	883	1021	1130	1171	778
75°	410	515	643	745	771	433
85°	86	149	164	160	155	107
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2430.0	2430.0	2430.0	2430.0	2430.0
2.5°	2432.4	2430.0	2419.4	2433.6	2432.4
5°	2420.6	2420.6	2413.5	2430.0	2430.0
7.5°	2404.0	2405.2	2402.8	2421.8	2421.8
10°	2378.0	2382.8	2386.3	2407.6	2409.9
12.5°	2347.3	2355.6	2362.7	2388.7	2391.0
15°	2307.1	2320.1	2335.5	2362.7	2367.4
17.5°	2265.7	2281.1	2297.7	2333.1	2339.0
20°	2216.1	2233.8	2261.0	2296.5	2305.9
22.5°	2160.6	2185.4	2213.7	2256.3	2268.1
25°	2102.6	2128.6	2165.3	2210.2	2224.4
27.5°	2040.0	2070.7	2112.1	2164.1	2179.5
30°	1970.3	2005.7	2056.5	2112.1	2128.6
32.5°	1897.0	1938.4	1995.1	2056.5	2075.5
35°	1821.3	1868.6	1933.6	1999.8	2021.1
37.5°	1746.9	1794.2	1871.0	1940.7	1960.8
40°	1666.5	1718.5	1802.4	1876.9	1905.3
42.5°	1581.4	1642.9	1731.5	1814.3	1841.4
45°	1496.3	1563.7	1659.4	1748.1	1777.6
47.5°	1410.0	1484.5	1589.7	1679.5	1713.8
50°	1323.8	1402.9	1512.9	1609.8	1645.2
52.5°	1236.3	1319.0	1438.4	1541.2	1573.1
55°	1153.6	1235.1	1359.2	1460.9	1501.0
57.5°	1057.8	1150.0	1281.2	1384.0	1423.0
60°	971.5	1061.4	1193.7	1302.5	1345.0
62.5°	878.2	970.4	1109.8	1218.6	1259.9
65°	788.3	882.9	1021.2	1129.9	1171.3
67.5°	691.4	790.7	932.5	1037.7	1077.9
70°	605.1	698.5	838.0	945.5	985.7
72.5°	500.0	606.3	739.9	846.3	890.0
75°	410.1	515.3	643.0	744.6	770.6
77.5°	315.6	420.8	547.2	613.4	631.1
80°	231.7	330.9	432.6	468.0	469.2
82.5°	156.0	243.5	301.4	319.1	316.8
85°	86.3	148.9	164.3	159.6	154.8
87.5°	35.5	49.6	40.2	28.4	22.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)