

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: P474366

Luminaire Tested: **24CZ2-55-HRP-UNV-L830-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474366  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-55-HRP-UNV-L830-CD1-U  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS W/ HRP INSERT  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

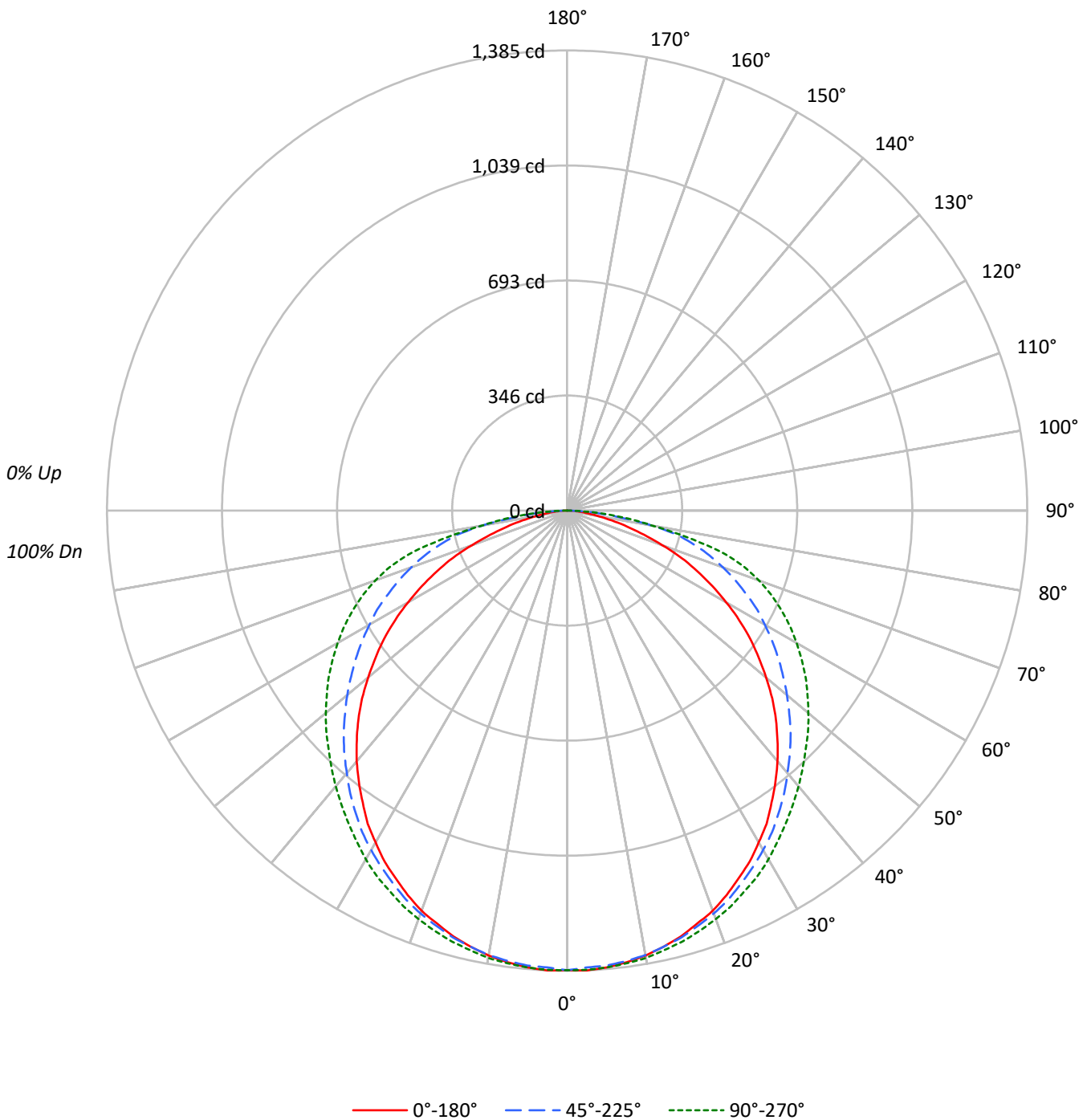
Lumens per Lamp: N/A  
Luminaire Lumens: 4263.7 lumens  
Efficiency: N/A  
Efficacy: 99.2 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 43  
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	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	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	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	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	24	35	29	24	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1861	1861	1861
5°	1864	1856	1864
10°	1858	1856	1868
15°	1847	1852	1870
20°	1835	1848	1873
25°	1813	1839	1876
30°	1791	1833	1883
35°	1762	1824	1885
40°	1731	1812	1903
45°	1691	1810	1933
50°	1637	1809	1984
55°	1578	1821	2056
60°	1489	1849	2147
65°	1375	1893	2268
70°	1201	1959	2416
75°	974	2060	2496
80°	720	2020	2020
85°	551	1488	1680



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	131.0	3.1
10°-20°	376.3	8.8
20°-30°	572.9	13.4
30°-40°	695.6	16.3
40°-50°	735.0	17.2
50°-60°	693.5	16.3
60°-70°	576.6	13.5
70°-80°	379.4	8.9
80°-90°	103.4	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°	1080.3	25.3
0°-40°	1775.9	41.7
0°-60°	3204.4	75.2
0°-90°	4263.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4263.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1383	1383	1383	1383	1383	
5°	1380	1380	1374	1380	1380	131
15°	1326	1328	1330	1342	1342	374
25°	1221	1228	1239	1260	1264	563
35°	1073	1085	1110	1139	1148	672
45°	889	907	951	998	1016	685
55°	673	702	776	850	876	599
65°	432	482	594	682	712	427
75°	187	273	396	469	480	202
85°	36	79	96	107	109	44
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1383.4	1383.4	1383.4	1383.4	1383.4
2.5°	1385.2	1383.4	1376.2	1383.4	1383.4
5°	1379.9	1379.9	1374.4	1379.9	1379.9
7.5°	1370.9	1370.9	1367.2	1374.4	1374.4
10°	1360.1	1360.1	1358.4	1367.2	1367.2
12.5°	1344.2	1345.8	1344.2	1354.8	1354.8
15°	1326.2	1328.0	1329.9	1342.3	1342.3
17.5°	1303.1	1306.6	1310.3	1324.4	1326.2
20°	1281.7	1283.3	1290.5	1306.6	1308.4
22.5°	1253.1	1258.4	1267.4	1283.3	1288.8
25°	1220.9	1228.0	1238.8	1260.2	1263.7
27.5°	1190.6	1195.9	1210.2	1233.5	1240.6
30°	1153.1	1162.1	1179.8	1203.1	1212.1
32.5°	1117.4	1126.3	1147.8	1172.7	1179.8
35°	1072.8	1085.3	1110.2	1138.8	1147.8
37.5°	1030.0	1042.4	1072.8	1104.9	1115.7
40°	985.3	999.6	1031.8	1069.2	1083.5
42.5°	937.1	956.7	992.4	1033.4	1049.6
45°	888.9	906.9	951.4	997.7	1015.7
47.5°	837.2	858.7	906.9	962.2	983.6
50°	781.9	808.7	864.0	924.6	947.9
52.5°	726.6	756.8	819.3	887.1	912.2
55°	672.9	701.5	776.4	849.7	876.4
57.5°	614.1	649.8	731.9	810.3	837.2
60°	553.3	592.7	687.2	769.3	797.8
62.5°	492.6	537.3	644.3	726.6	756.8
65°	432.0	482.0	594.5	681.9	712.3
67.5°	373.0	428.3	548.0	635.5	665.8
70°	305.2	374.8	497.9	583.7	614.1
72.5°	242.7	323.2	449.8	530.2	556.9
75°	187.4	273.2	396.3	469.4	480.2
77.5°	137.4	223.1	340.9	365.9	367.7
80°	92.9	178.4	260.7	257.0	260.7
82.5°	60.6	133.9	164.1	183.9	185.6
85°	35.7	78.6	96.4	107.2	108.8
87.5°	17.8	26.7	33.9	35.7	39.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)