

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: P474423

Luminaire Tested: **24CZ2-50HE-HRP-UNV-L835-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474423  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-50HE-HRP-UNV-L835-CD1-U  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS W/ HRP INSERT  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

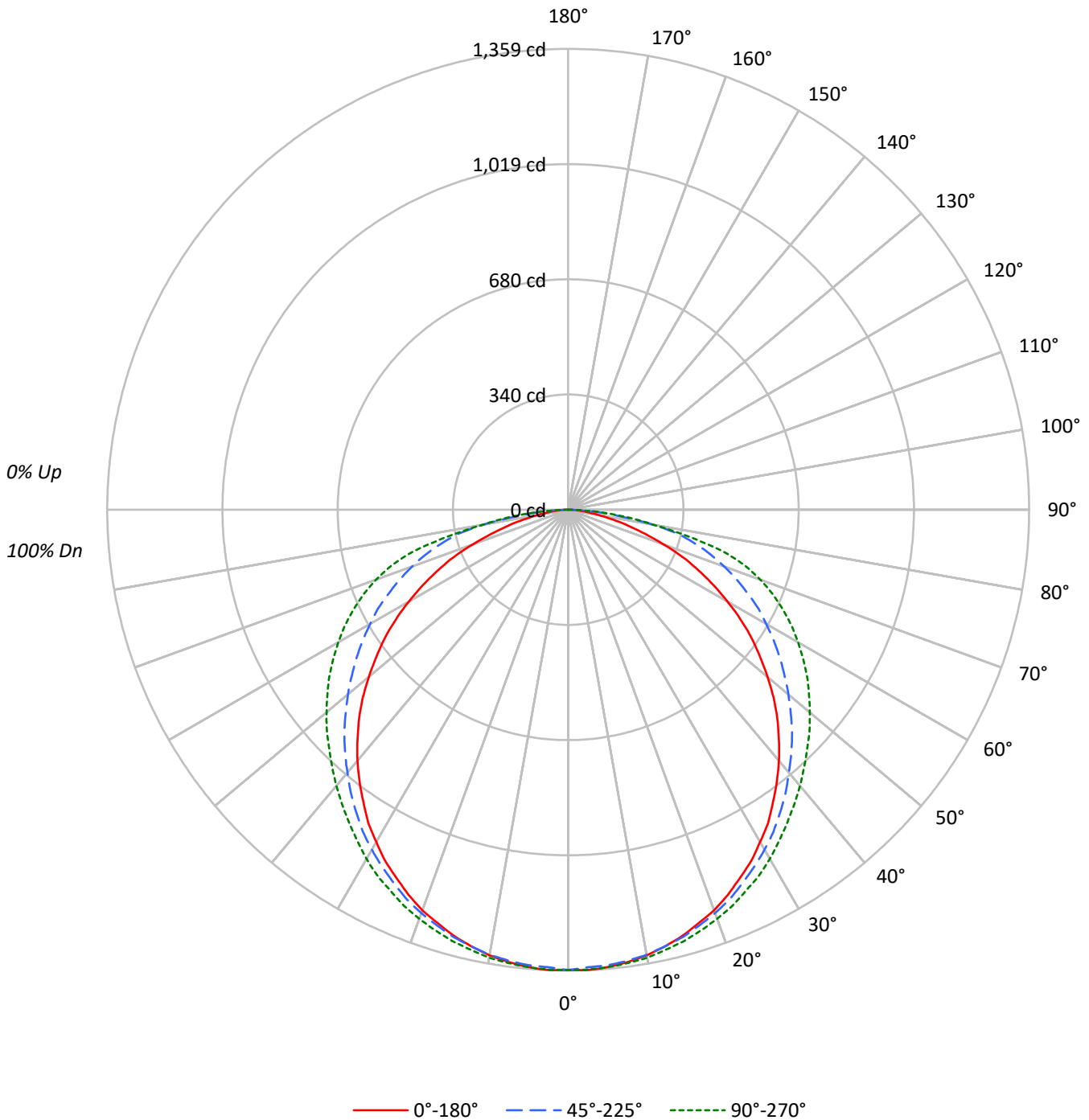
Lumens per Lamp: N/A  
Luminaire Lumens: 4183.5 lumens  
Efficiency: N/A  
Efficacy: 108.4 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 38.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
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°	1826	1826	1826
5°	1829	1821	1829
10°	1823	1821	1833
15°	1813	1818	1835
20°	1801	1813	1838
25°	1778	1805	1841
30°	1758	1798	1848
35°	1729	1789	1850
40°	1698	1778	1867
45°	1660	1776	1896
50°	1606	1774	1947
55°	1549	1787	2017
60°	1461	1815	2106
65°	1350	1857	2225
70°	1178	1922	2370
75°	956	2021	2449
80°	706	1982	1982
85°	542	1459	1649



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	128.6	3.1
10°-20°	369.2	8.8
20°-30°	562.1	13.4
30°-40°	682.5	16.3
40°-50°	721.1	17.2
50°-60°	680.4	16.3
60°-70°	565.8	13.5
70°-80°	372.2	8.9
80°-90°	101.5	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°	1059.9	25.3
0°-40°	1742.5	41.7
0°-60°	3144.0	75.2
0°-90°	4183.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4183.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1357	1357	1357	1357	1357	
5°	1354	1354	1348	1354	1354	129
15°	1301	1303	1305	1317	1317	367
25°	1198	1205	1216	1236	1240	553
35°	1053	1065	1089	1117	1126	659
45°	872	890	934	979	996	672
55°	660	688	762	834	860	588
65°	424	473	583	669	699	419
75°	184	268	389	460	471	198
85°	35	77	94	105	107	43
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1357.3	1357.3	1357.3	1357.3	1357.3
2.5°	1359.1	1357.3	1350.3	1357.3	1357.3
5°	1353.9	1353.9	1348.5	1353.9	1353.9
7.5°	1345.1	1345.1	1341.5	1348.5	1348.5
10°	1334.5	1334.5	1332.9	1341.5	1341.5
12.5°	1318.8	1320.5	1318.8	1329.3	1329.3
15°	1301.2	1303.0	1304.8	1317.0	1317.0
17.5°	1278.6	1282.0	1285.6	1299.4	1301.2
20°	1257.5	1259.2	1266.2	1282.0	1283.8
22.5°	1229.5	1234.7	1243.5	1259.2	1264.6
25°	1197.9	1204.9	1215.5	1236.5	1239.9
27.5°	1168.2	1173.4	1187.4	1210.3	1217.3
30°	1131.4	1140.2	1157.6	1180.4	1189.2
32.5°	1096.3	1105.1	1126.1	1150.6	1157.6
35°	1052.6	1064.9	1089.3	1117.3	1126.1
37.5°	1010.6	1022.8	1052.6	1084.1	1094.7
40°	966.7	980.7	1012.4	1049.0	1063.1
42.5°	919.4	938.7	973.7	1014.0	1029.8
45°	872.2	889.8	933.5	978.9	996.5
47.5°	821.5	842.5	889.8	944.1	965.1
50°	767.2	793.4	847.7	907.2	930.0
52.5°	712.9	742.6	803.9	870.4	895.0
55°	660.2	688.3	761.8	833.7	859.9
57.5°	602.5	637.6	718.1	795.0	821.5
60°	542.9	581.5	674.3	754.8	782.8
62.5°	483.4	527.2	632.2	712.9	742.6
65°	423.9	472.9	583.3	669.0	698.9
67.5°	366.0	420.3	537.6	623.6	653.2
70°	299.5	367.8	488.6	572.7	602.5
72.5°	238.2	317.1	441.3	520.2	546.4
75°	183.9	268.0	388.8	460.5	471.1
77.5°	134.8	218.9	334.5	359.0	360.8
80°	91.1	175.1	255.8	252.2	255.8
82.5°	59.5	131.4	161.1	180.5	182.1
85°	35.1	77.1	94.5	105.2	106.8
87.5°	17.4	26.2	33.3	35.1	38.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)