

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: P474272

Luminaire Tested: **24CZ2-45HE-RDP-UNV-L840-CD1-U**

Issue Date: 01/28/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P474272  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 01/28/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-45HE-RDP-UNV-L840-CD1-U  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS W/ RDP INSERT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3217.1 lumens  
Efficiency: N/A  
Efficacy: 91.1 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

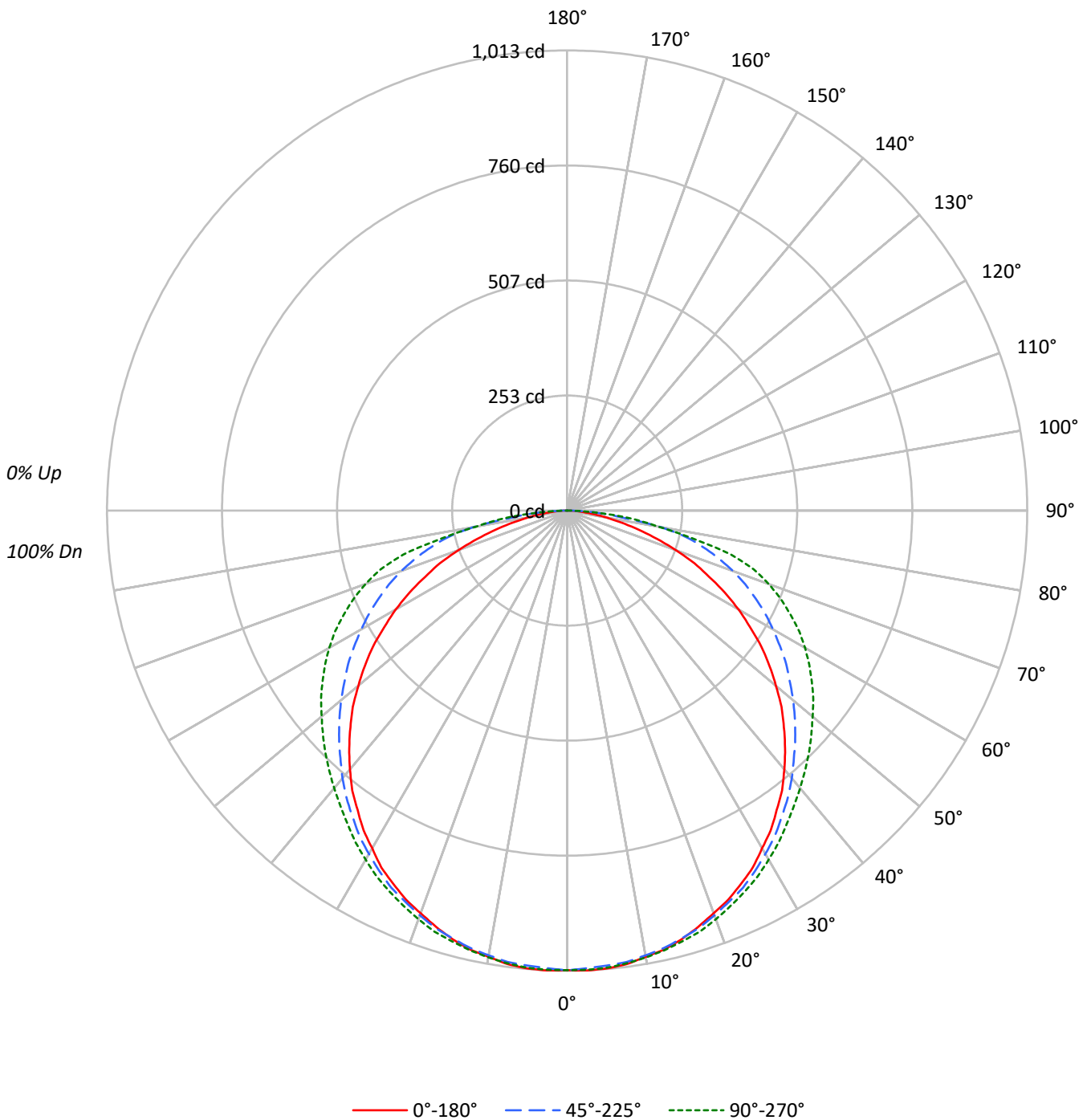
Input Watts (W): 35.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

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

	0°	45°	90°
0°	1361	1361	1361
5°	1366	1358	1364
10°	1363	1358	1365
15°	1360	1358	1367
20°	1350	1357	1371
25°	1346	1360	1374
30°	1334	1356	1378
35°	1321	1352	1384
40°	1306	1351	1401
45°	1284	1351	1433
50°	1256	1360	1477
55°	1224	1381	1542
60°	1172	1408	1628
65°	1097	1458	1727
70°	998	1526	1858
75°	846	1609	1941
80°	668	1619	1570
85°	492	1232	1380



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	96.0	3.0
10°-20°	276.2	8.6
20°-30°	422.4	13.1
30°-40°	516.3	16.0
40°-50°	550.3	17.1
50°-60°	526.1	16.4
60°-70°	445.7	13.9
70°-80°	299.6	9.3
80°-90°	84.5	2.6
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°	794.5	24.7
0°-40°	1310.8	40.7
0°-60°	2387.3	74.2
0°-90°	3217.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3217.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1012	1012	1012	1012	1012	
5°	1012	1010	1005	1010	1010	96
15°	977	977	975	983	981	275
25°	906	910	916	924	926	418
35°	804	811	823	839	842	504
45°	675	686	710	740	753	521
55°	522	541	589	635	658	465
65°	345	380	458	519	542	342
75°	163	222	310	362	373	174
85°	32	66	80	86	89	40
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1011.7	1011.7	1011.7	1011.7	1011.7
2.5°	1013.3	1013.3	1008.5	1011.7	1011.7
5°	1011.7	1010.1	1005.3	1010.1	1010.1
7.5°	1006.9	1005.3	1002.1	1006.9	1005.3
10°	997.4	997.4	994.2	999.0	999.0
12.5°	989.4	987.8	986.2	992.6	991.0
15°	976.6	976.6	975.0	983.0	981.4
17.5°	960.6	962.2	963.8	970.2	971.8
20°	943.1	946.3	947.9	957.4	957.4
22.5°	927.1	928.7	931.9	941.5	941.5
25°	906.4	909.5	915.9	923.9	925.5
27.5°	885.6	887.2	895.2	906.4	908.0
30°	858.5	863.2	872.8	885.6	887.2
32.5°	834.5	839.3	850.5	863.2	866.4
35°	804.2	810.6	823.3	839.3	842.5
37.5°	777.0	781.8	797.8	815.4	820.1
40°	743.7	753.1	769.1	789.8	797.8
42.5°	710.1	719.7	738.9	765.9	775.4
45°	675.0	686.2	710.1	740.5	753.1
47.5°	639.9	652.7	679.8	714.9	729.3
50°	600.0	615.9	649.5	689.4	705.4
52.5°	561.7	580.8	617.5	662.2	683.0
55°	521.7	540.9	588.8	635.1	657.5
57.5°	477.0	502.6	555.3	608.0	631.9
60°	435.7	459.5	523.3	580.8	604.8
62.5°	391.0	422.9	491.4	552.1	576.0
65°	344.7	379.8	457.9	518.6	542.5
67.5°	303.2	341.5	424.5	485.0	509.0
70°	253.7	301.6	387.8	448.3	472.3
72.5°	207.4	260.1	349.5	408.6	430.9
75°	162.7	221.8	309.6	362.3	373.4
77.5°	121.3	183.4	268.1	290.4	282.4
80°	86.2	146.9	209.0	197.8	202.6
82.5°	55.9	111.8	129.3	146.9	151.5
85°	31.9	65.5	79.8	86.2	89.4
87.5°	14.4	23.9	31.9	31.9	30.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)