

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: P272055

Luminaire Tested: **24CZ2-30HE-UNV-L940-CD1-U**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

**Test Information**

Test Method: LM-79-08  
Report Number: P272055  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-30HE-UNV-L940-CD1-U  
Description: 2'x4' TROFFER LED MODULE,RIBBED LENS, 90CRI  
Light Source: (168) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2574.0 lumens  
Efficiency: N/A  
Efficacy: 114.9 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

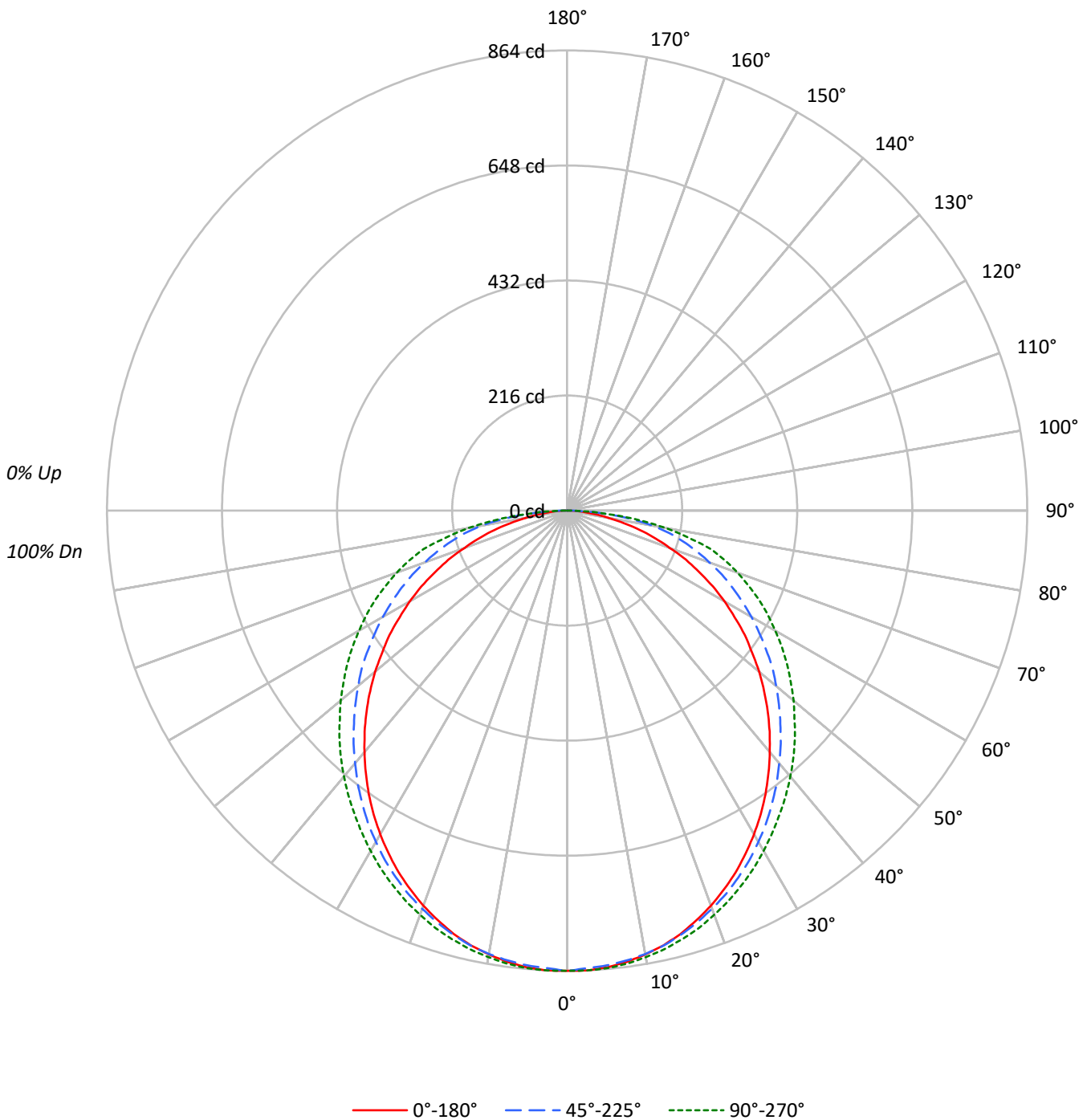
Input Watts (W): 22.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P272055

CATALOG NUMBER: 24CZ2-30HE-UNV-L940-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P272055

CATALOG NUMBER: 24CZ2-30HE-UNV-L940-CD1-U

**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	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	60	68	63	58	56
4	81	69	59	52	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	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
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	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

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

	0°	45°	90°
0°	1163	1163	1163
5°	1163	1158	1165
10°	1156	1155	1163
15°	1146	1149	1161
20°	1130	1139	1156
25°	1112	1129	1152
30°	1090	1116	1146
35°	1067	1102	1143
40°	1040	1088	1145
45°	1013	1077	1151
50°	985	1072	1162
55°	955	1070	1183
60°	918	1075	1214
65°	870	1091	1266
70°	808	1118	1338
75°	737	1174	1451
80°	606	1265	1451
85°	465	1167	1247



TEST NUMBER: P272055

CATALOG NUMBER: 24CZ2-30HE-UNV-L940-CD1-U

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	81.7	3.2
10°-20°	233.3	9.1
20°-30°	351.1	13.6
30°-40°	420.8	16.3
40°-50°	438.5	17.0
50°-60°	408.0	15.9
60°-70°	336.0	13.1
70°-80°	228.9	8.9
80°-90°	75.6	2.9
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°	666.2	25.9
0°-40°	1087.0	42.2
0°-60°	1933.6	75.1
0°-90°	2574.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2574.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	864	864	864	864	864	
5°	861	861	857	862	862	82
15°	823	824	825	832	833	232
25°	749	752	760	773	776	345
35°	649	657	671	689	696	406
45°	533	544	566	594	605	411
55°	407	421	456	492	504	363
65°	273	296	343	383	398	271
75°	142	174	226	266	279	149
85°	30	58	76	81	81	37
90°	0	0	0	0	0	



TEST NUMBER: P272055

CATALOG NUMBER: 24CZ2-30HE-UNV-L940-CD1-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	864.2	864.2	864.2	864.2	864.2
2.5°	864.2	864.2	859.9	864.2	864.2
5°	860.8	860.8	857.3	861.6	862.5
7.5°	854.8	855.6	852.2	857.3	858.2
10°	846.2	847.0	845.3	850.5	851.3
12.5°	835.9	836.7	836.7	842.7	843.6
15°	823.0	823.8	824.7	832.4	833.3
17.5°	806.7	809.2	810.9	820.4	822.1
20°	789.5	792.1	795.5	805.8	807.5
22.5°	769.7	773.2	779.2	790.3	792.9
25°	749.1	752.5	760.3	773.2	775.7
27.5°	725.9	731.1	740.5	754.3	757.7
30°	701.8	707.0	718.2	732.8	737.9
32.5°	676.1	683.0	695.8	712.2	717.3
35°	649.4	657.2	670.9	689.0	695.8
37.5°	621.1	629.7	646.0	665.8	674.4
40°	591.9	602.2	619.4	642.6	652.0
42.5°	562.7	572.1	593.6	618.5	628.8
45°	532.6	543.8	566.1	594.5	604.8
47.5°	501.7	512.9	539.5	569.6	579.0
50°	470.8	481.9	512.0	543.8	555.0
52.5°	437.3	451.9	486.2	518.0	529.2
55°	407.2	420.9	456.2	492.2	504.3
57.5°	372.8	389.2	427.8	465.6	478.5
60°	341.0	358.2	399.5	438.1	451.0
62.5°	308.4	327.3	371.1	410.6	425.2
65°	273.2	296.4	342.8	383.1	397.7
67.5°	241.4	265.4	314.4	355.6	368.5
70°	205.3	234.5	284.3	325.6	340.2
72.5°	174.4	203.6	256.0	296.4	311.0
75°	141.7	173.5	225.9	266.3	279.2
77.5°	109.1	144.3	196.7	227.7	231.9
80°	78.2	115.1	163.2	181.3	187.3
82.5°	55.0	88.5	120.3	132.3	135.7
85°	30.1	58.4	75.6	80.8	80.8
87.5°	12.9	24.9	30.1	30.9	31.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)