

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: P272063

Luminaire Tested: **24CZ2-35HE-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: P272063  
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: 24CZ2-35HE-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: 3061.0 lumens  
Efficiency: N/A  
Efficacy: 113.8 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

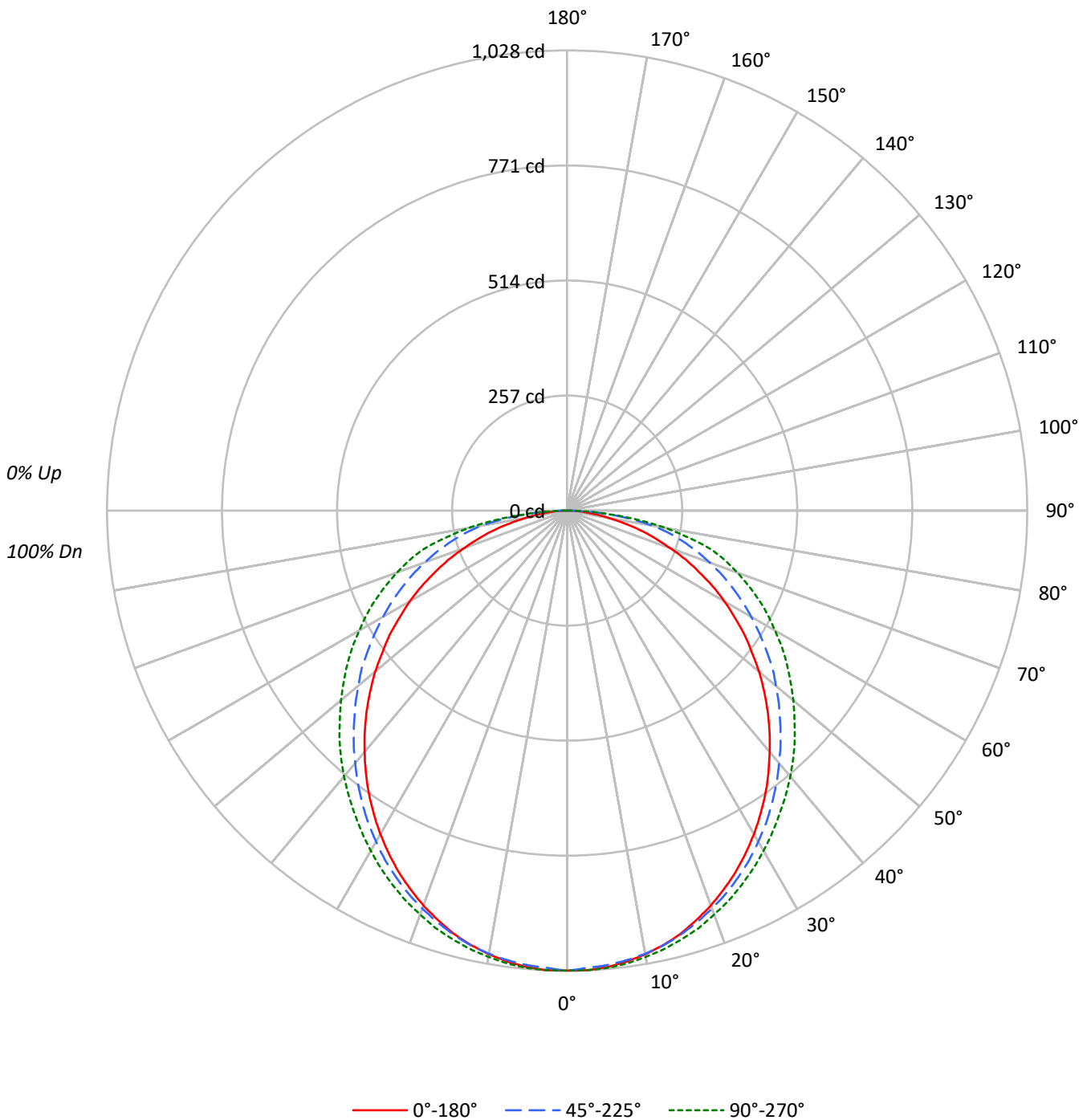
Input Watts (W): 26.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	1383	1383	1383
5°	1383	1377	1385
10°	1375	1373	1383
15°	1363	1366	1380
20°	1344	1355	1375
25°	1322	1342	1370
30°	1297	1327	1363
35°	1269	1311	1359
40°	1236	1294	1362
45°	1205	1281	1369
50°	1172	1275	1381
55°	1136	1273	1407
60°	1091	1278	1443
65°	1034	1298	1506
70°	961	1330	1591
75°	876	1397	1726
80°	721	1504	1726
85°	553	1388	1482



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	97.2	3.2
10°-20°	277.5	9.1
20°-30°	417.6	13.6
30°-40°	500.4	16.3
40°-50°	521.5	17.0
50°-60°	485.2	15.9
60°-70°	399.6	13.1
70°-80°	272.1	8.9
80°-90°	89.9	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°	792.3	25.9
0°-40°	1292.7	42.2
0°-60°	2299.4	75.1
0°-90°	3061.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3061.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1028	1028	1028	1028	1028	
5°	1024	1024	1020	1025	1026	97
15°	979	980	981	990	991	276
25°	891	895	904	919	922	410
35°	772	782	798	819	828	483
45°	633	647	673	707	719	488
55°	484	501	542	585	600	432
65°	325	352	408	456	473	323
75°	169	206	269	317	332	178
85°	36	70	90	96	96	44
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1027.7	1027.7	1027.7	1027.7	1027.7
2.5°	1027.7	1027.7	1022.6	1027.7	1027.7
5°	1023.6	1023.6	1019.5	1024.7	1025.7
7.5°	1016.5	1017.5	1013.4	1019.5	1020.6
10°	1006.3	1007.3	1005.2	1011.4	1012.4
12.5°	994.0	995.0	995.0	1002.2	1003.2
15°	978.7	979.7	980.7	989.9	990.9
17.5°	959.3	962.3	964.4	975.6	977.7
20°	938.8	941.9	946.0	958.3	960.3
22.5°	915.3	919.4	926.6	939.9	942.9
25°	890.8	894.9	904.1	919.4	922.5
27.5°	863.2	869.4	880.6	897.0	901.0
30°	834.6	840.8	854.0	871.4	877.5
32.5°	804.0	812.2	827.5	846.9	853.0
35°	772.3	781.5	797.9	819.3	827.5
37.5°	738.6	748.8	768.2	791.7	801.9
40°	703.9	716.1	736.6	764.1	775.4
42.5°	669.1	680.4	705.9	735.5	747.8
45°	633.4	646.7	673.2	706.9	719.2
47.5°	596.6	609.9	641.6	677.3	688.6
50°	559.8	573.1	608.9	646.7	659.9
52.5°	520.0	537.4	578.2	616.0	629.3
55°	484.2	500.6	542.5	585.4	599.7
57.5°	443.4	462.8	508.8	553.7	569.0
60°	405.6	426.0	475.0	521.0	536.3
62.5°	366.8	389.2	441.3	488.3	505.7
65°	324.9	352.4	407.6	455.6	473.0
67.5°	287.1	315.7	373.9	422.9	438.3
70°	244.2	278.9	338.1	387.2	404.5
72.5°	207.4	242.1	304.4	352.4	369.8
75°	168.6	206.4	268.7	316.7	332.0
77.5°	129.7	171.6	233.9	270.7	275.8
80°	93.0	136.9	194.1	215.6	222.7
82.5°	65.4	105.2	143.0	157.3	161.4
85°	35.8	69.5	89.9	96.0	96.0
87.5°	15.3	29.6	35.8	36.8	37.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)