

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: P272139

Luminaire Tested: **24CZ2-35-S-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: P272139
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-35-S-UNV-L940-CD1-U
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS, 90CRI
Light Source: (84) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

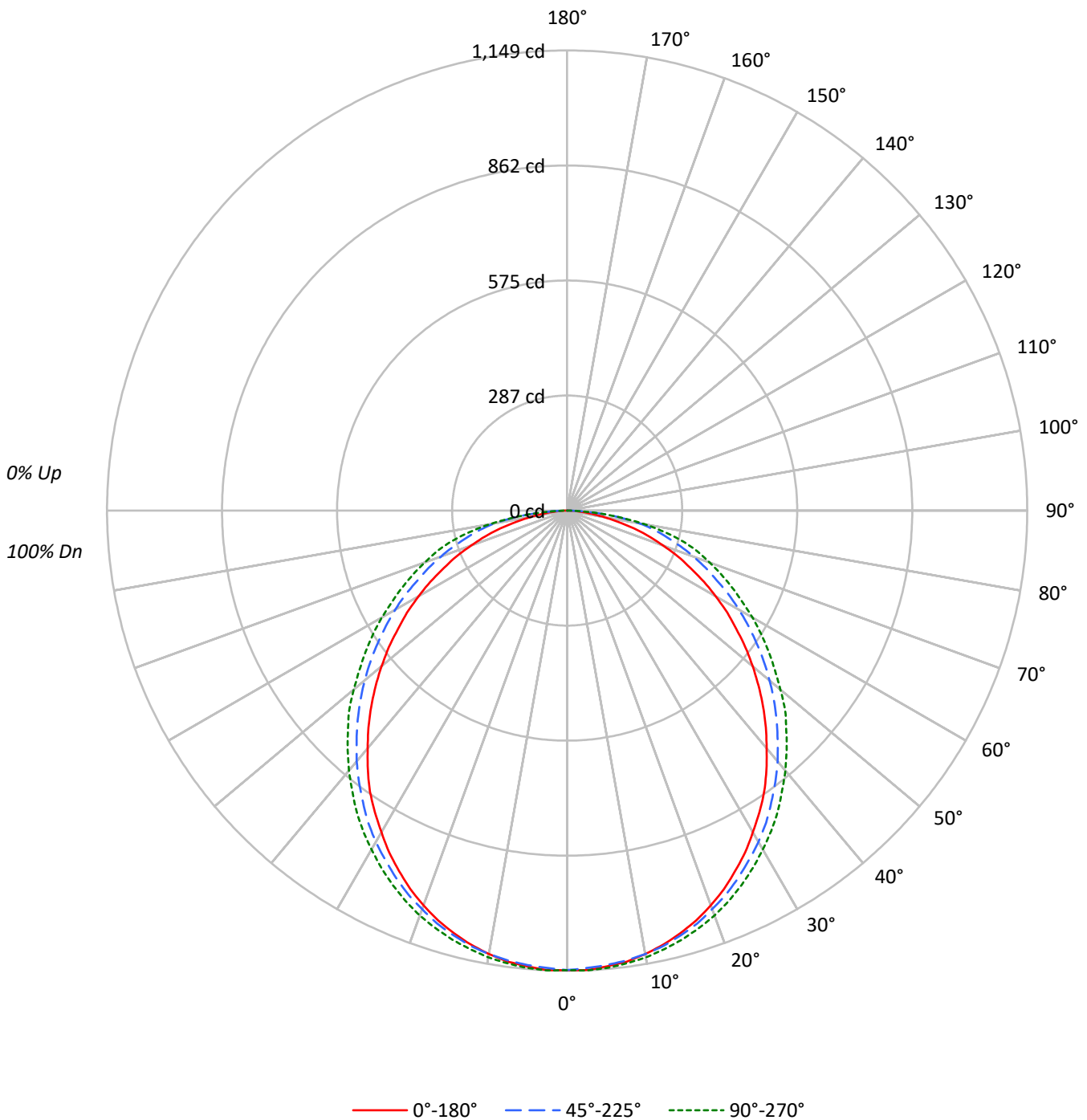
Lumens per Lamp: N/A
Luminaire Lumens: 3266.0 lumens
Efficiency: N/A
Efficacy: 108.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 30.1
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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1544	1544	1544
5°	1543	1539	1548
10°	1536	1536	1548
15°	1522	1529	1545
20°	1502	1517	1540
25°	1474	1502	1531
30°	1441	1484	1518
35°	1409	1460	1506
40°	1361	1436	1489
45°	1317	1408	1473
50°	1266	1381	1455
55°	1209	1355	1441
60°	1153	1334	1438
65°	1080	1311	1447
70°	1000	1318	1485
75°	895	1343	1569
80°	724	1423	1535
85°	545	1249	1216



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.6	3.3
10°-20°	310.4	9.5
20°-30°	466.6	14.3
30°-40°	555.7	17.0
40°-50°	568.8	17.4
50°-60°	512.1	15.7
60°-70°	402.1	12.3
70°-80°	261.0	8.0
80°-90°	80.7	2.5
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°	885.6	27.1
0°-40°	1441.3	44.1
0°-60°	2522.1	77.2
0°-90°	3266.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3266.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1147	1147	1147	1147	1147	
5°	1142	1144	1139	1145	1146	109
15°	1092	1096	1098	1107	1109	308
25°	993	1001	1012	1028	1031	457
35°	858	868	889	911	917	535
45°	692	708	740	768	774	533
55°	516	538	578	608	614	462
65°	339	365	412	446	454	338
75°	172	205	258	294	302	182
85°	35	65	81	79	79	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1147.4	1147.4	1147.4	1147.4	1147.4
2.5°	1148.4	1148.4	1143.2	1148.4	1149.4
5°	1142.2	1144.3	1139.1	1145.3	1146.3
7.5°	1136.0	1136.0	1132.8	1139.1	1140.1
10°	1124.5	1125.6	1124.5	1131.8	1132.8
12.5°	1110.0	1112.1	1113.1	1120.4	1121.4
15°	1092.4	1095.5	1097.6	1106.9	1109.0
17.5°	1072.7	1075.8	1081.0	1091.3	1093.4
20°	1048.8	1053.0	1059.2	1072.7	1075.8
22.5°	1022.9	1027.0	1037.4	1049.9	1055.0
25°	992.8	1001.1	1011.5	1028.1	1031.2
27.5°	962.7	970.0	983.5	1001.1	1005.2
30°	927.4	938.8	955.4	973.1	977.2
32.5°	893.2	904.6	924.3	943.0	948.2
35°	857.9	868.3	889.1	910.8	917.1
37.5°	817.5	831.0	853.8	875.6	881.8
40°	774.9	791.5	817.5	840.3	847.6
42.5°	734.5	752.1	778.1	802.9	811.2
45°	691.9	708.5	739.7	767.7	773.9
47.5°	648.4	667.0	700.2	728.3	738.6
50°	604.8	624.5	659.8	688.8	695.1
52.5°	561.2	582.0	619.3	650.5	653.6
55°	515.6	538.4	577.8	607.9	614.1
57.5°	474.1	493.8	536.3	567.5	574.7
60°	428.4	450.2	495.9	524.9	534.3
62.5°	384.9	407.7	455.4	484.5	492.8
65°	339.2	365.2	411.8	446.1	454.4
67.5°	299.8	324.7	374.5	407.7	416.0
70°	254.2	282.2	335.1	369.3	377.6
72.5°	214.7	243.8	296.7	329.9	342.3
75°	172.2	205.4	258.3	293.6	301.9
77.5°	130.7	169.1	223.0	250.0	250.0
80°	93.4	133.8	183.6	196.1	198.1
82.5°	61.2	100.6	135.9	134.9	134.9
85°	35.3	65.4	80.9	78.8	78.8
87.5°	13.5	27.0	29.0	29.0	28.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)