

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: P295066

Luminaire Tested: **24CZ2-60-HRP-UNV-L950-CD1-U**

Issue Date: 12/2/2019

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: P295066
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-60-HRP-UNV-L950-CD1-U
Description: 2'x4' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS
Light Source: (112) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

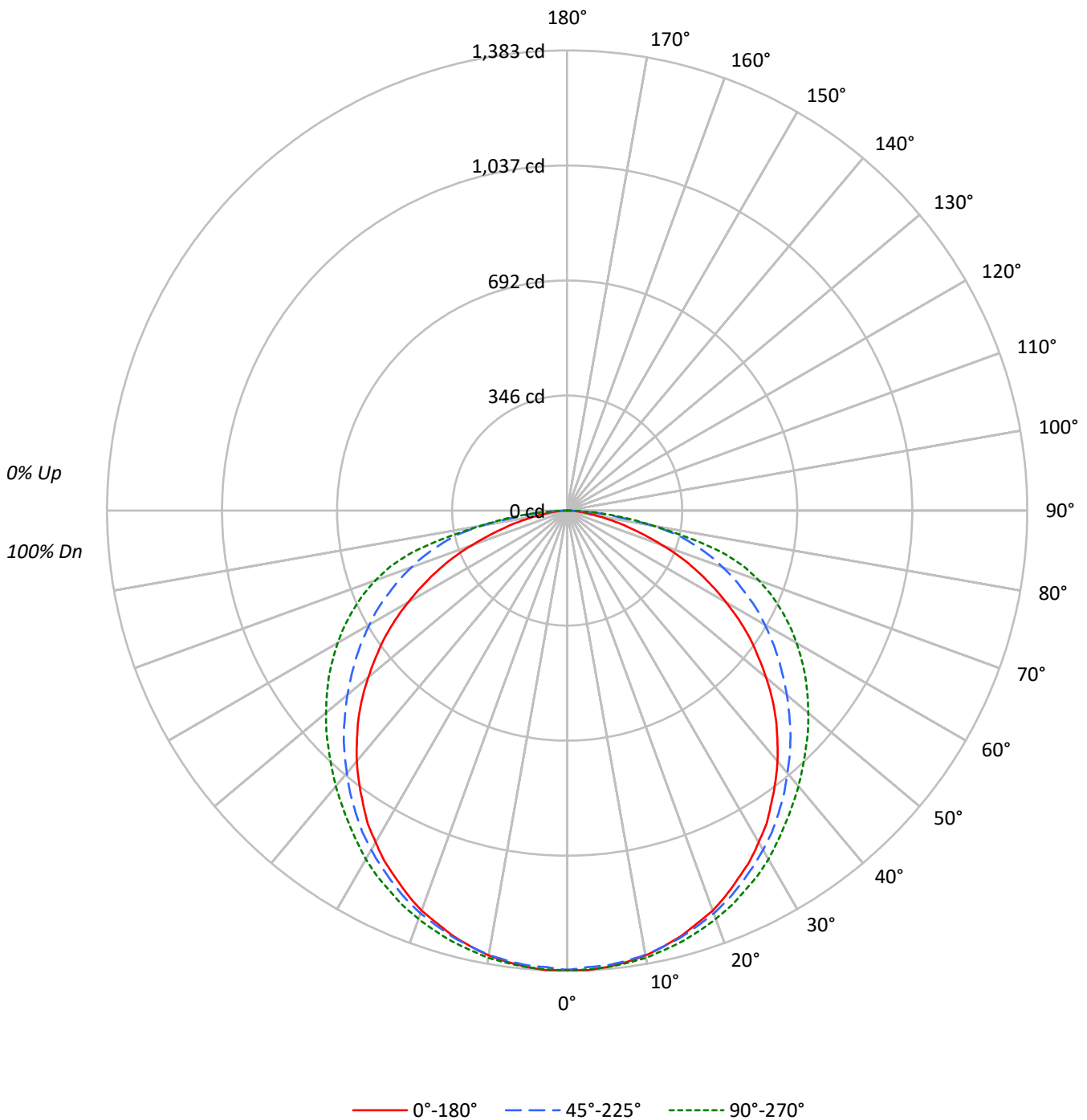
Lumens per Lamp: N/A
Luminaire Lumens: 4255.8 lumens
Efficiency: N/A
Efficacy: 76.5 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 55.6
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	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°	1858	1858	1858
5°	1860	1853	1860
10°	1855	1852	1865
15°	1844	1849	1866
20°	1832	1844	1870
25°	1809	1836	1873
30°	1788	1830	1880
35°	1759	1820	1882
40°	1727	1809	1900
45°	1688	1807	1929
50°	1634	1805	1980
55°	1576	1818	2052
60°	1486	1846	2143
65°	1373	1889	2263
70°	1199	1956	2411
75°	973	2056	2492
80°	717	2015	2015
85°	550	1485	1678



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.8	3.1
10°-20°	375.6	8.8
20°-30°	571.8	13.4
30°-40°	694.3	16.3
40°-50°	733.6	17.2
50°-60°	692.2	16.3
60°-70°	575.5	13.5
70°-80°	378.7	8.9
80°-90°	103.2	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°	1078.3	25.3
0°-40°	1772.6	41.7
0°-60°	3198.4	75.2
0°-90°	4255.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4255.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1381	1381	1381	1381	1381	
5°	1377	1377	1372	1377	1377	131
15°	1324	1326	1327	1340	1340	373
25°	1219	1226	1236	1258	1261	562
35°	1071	1083	1108	1137	1146	670
45°	887	905	950	996	1014	683
55°	672	700	775	848	875	598
65°	431	481	593	681	711	426
75°	187	273	396	469	479	202
85°	36	78	96	107	109	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1380.8	1380.8	1380.8	1380.8	1380.8
2.5°	1382.6	1380.8	1373.7	1380.8	1380.8
5°	1377.2	1377.2	1371.9	1377.2	1377.2
7.5°	1368.3	1368.3	1364.8	1371.9	1371.9
10°	1357.6	1357.6	1355.8	1364.8	1364.8
12.5°	1341.6	1343.4	1341.6	1352.3	1352.3
15°	1323.8	1325.6	1327.3	1339.8	1339.8
17.5°	1300.6	1304.2	1307.7	1322.0	1323.8
20°	1279.2	1281.0	1288.1	1304.2	1306.0
22.5°	1250.7	1256.1	1265.0	1281.0	1286.4
25°	1218.7	1225.8	1236.5	1257.9	1261.4
27.5°	1188.4	1193.7	1208.0	1231.1	1238.3
30°	1151.0	1159.9	1177.7	1200.8	1209.8
32.5°	1115.3	1124.2	1145.6	1170.6	1177.7
35°	1070.8	1083.3	1108.2	1136.7	1145.6
37.5°	1028.0	1040.5	1070.8	1102.9	1113.5
40°	983.5	997.7	1029.8	1067.2	1081.5
42.5°	935.4	955.0	990.6	1031.6	1047.6
45°	887.3	905.1	949.6	996.0	1013.8
47.5°	835.6	857.0	905.1	960.3	981.7
50°	780.4	807.1	862.3	922.9	946.1
52.5°	725.1	755.4	817.8	885.5	910.4
55°	671.7	700.2	775.0	848.1	874.8
57.5°	612.9	648.5	730.5	808.9	835.6
60°	552.3	591.5	685.9	767.9	796.4
62.5°	491.7	536.3	643.2	725.1	755.4
65°	431.2	481.0	593.3	680.6	710.9
67.5°	372.4	427.6	547.0	634.3	664.6
70°	304.7	374.1	497.1	582.6	612.9
72.5°	242.3	322.5	449.0	529.2	555.9
75°	187.1	272.6	395.5	468.6	479.3
77.5°	137.2	222.7	340.3	365.2	367.0
80°	92.6	178.2	260.1	256.6	260.1
82.5°	60.6	133.6	163.9	183.5	185.3
85°	35.6	78.4	96.2	106.9	108.7
87.5°	17.8	26.7	33.9	35.6	39.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)