

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: P272180

Luminaire Tested: **24CZ2-60-S-UNV-L950-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: P272180
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: 24CZ2-60-S-UNV-L950-CD1-U
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS, 90CRI
Light Source: (112) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

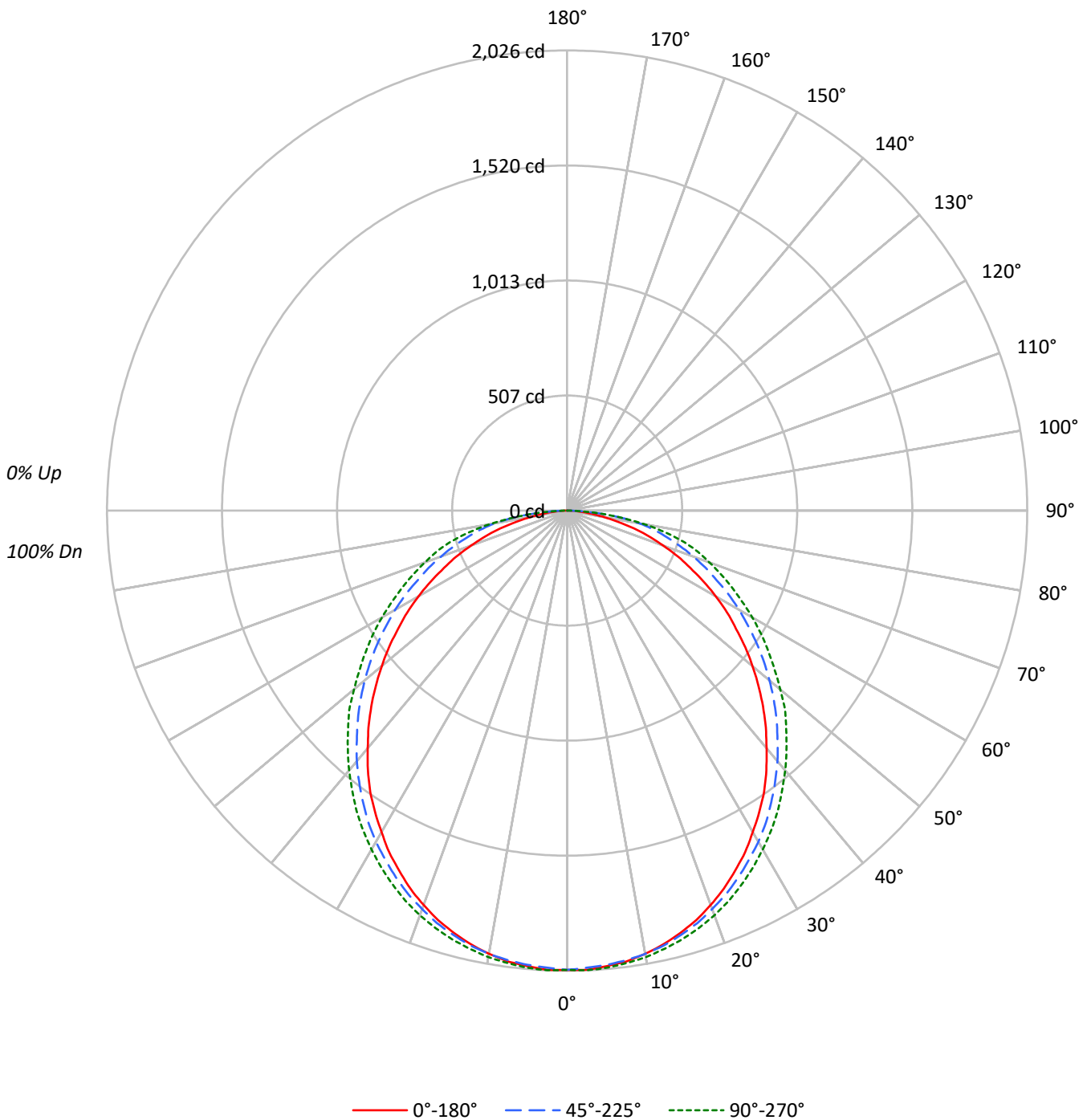
Lumens per Lamp: N/A
Luminaire Lumens: 5756.0 lumens
Efficiency: N/A
Efficacy: 103.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	2721	2721	2721
5°	2719	2711	2729
10°	2708	2708	2728
15°	2682	2695	2723
20°	2647	2673	2715
25°	2598	2646	2698
30°	2539	2616	2676
35°	2484	2574	2655
40°	2399	2530	2624
45°	2320	2481	2595
50°	2231	2434	2564
55°	2132	2389	2539
60°	2032	2352	2534
65°	1904	2311	2550
70°	1762	2323	2618
75°	1578	2367	2766
80°	1275	2507	2706
85°	960	2201	2146



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	191.4	3.3
10°-20°	547.0	9.5
20°-30°	822.3	14.3
30°-40°	979.4	17.0
40°-50°	1002.4	17.4
50°-60°	902.5	15.7
60°-70°	708.7	12.3
70°-80°	460.0	8.0
80°-90°	142.3	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°	1560.7	27.1
0°-40°	2540.1	44.1
0°-60°	4445.0	77.2
0°-90°	5756.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5756.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2022	2022	2022	2022	2022	
5°	2013	2017	2008	2018	2020	191
15°	1925	1931	1934	1951	1954	543
25°	1750	1764	1783	1812	1817	806
35°	1512	1530	1567	1605	1616	943
45°	1220	1249	1304	1353	1364	940
55°	909	949	1018	1071	1082	815
65°	598	644	726	786	801	595
75°	304	362	455	517	532	321
85°	62	115	143	139	139	75
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2022.1	2022.1	2022.1	2022.1	2022.1
2.5°	2023.9	2023.9	2014.8	2023.9	2025.8
5°	2013.0	2016.6	2007.5	2018.5	2020.3
7.5°	2002.0	2002.0	1996.5	2007.5	2009.3
10°	1981.9	1983.7	1981.9	1994.7	1996.5
12.5°	1956.3	1960.0	1961.8	1974.6	1976.4
15°	1925.2	1930.7	1934.4	1950.8	1954.5
17.5°	1890.5	1896.0	1905.1	1923.4	1927.0
20°	1848.4	1855.7	1866.7	1890.5	1896.0
22.5°	1802.7	1810.0	1828.3	1850.3	1859.4
25°	1749.7	1764.3	1782.6	1811.9	1817.3
27.5°	1696.7	1709.5	1733.2	1764.3	1771.6
30°	1634.5	1654.6	1683.9	1715.0	1722.3
32.5°	1574.2	1594.3	1629.0	1661.9	1671.1
35°	1512.0	1530.3	1566.9	1605.3	1616.2
37.5°	1440.7	1464.5	1504.7	1543.1	1554.1
40°	1365.8	1395.0	1440.7	1480.9	1493.7
42.5°	1294.4	1325.5	1371.2	1415.1	1429.7
45°	1219.5	1248.7	1303.6	1353.0	1363.9
47.5°	1142.7	1175.6	1234.1	1283.5	1301.8
50°	1065.9	1100.6	1162.8	1214.0	1225.0
52.5°	989.1	1025.7	1091.5	1146.4	1151.8
55°	908.7	948.9	1018.4	1071.4	1082.4
57.5°	835.5	870.3	945.2	1000.1	1012.9
60°	755.1	793.5	873.9	925.1	941.6
62.5°	678.3	718.5	802.6	853.8	868.5
65°	597.9	643.6	725.8	786.2	800.8
67.5°	528.4	572.3	660.0	718.5	733.2
70°	447.9	497.3	590.5	650.9	665.5
72.5°	378.5	429.7	522.9	581.4	603.3
75°	303.5	362.0	455.3	517.4	532.0
77.5°	230.4	298.0	393.1	440.6	440.6
80°	164.5	235.9	323.6	345.6	349.2
82.5°	107.9	177.3	239.5	237.7	237.7
85°	62.2	115.2	142.6	139.0	139.0
87.5°	23.8	47.5	51.2	51.2	49.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)