

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: P272190

Luminaire Tested: **24CZ2-70HE-S-UNV-L935-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: P272190
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: 24CZ2-70HE-S-UNV-L935-CD1-U
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS, 90CRI
Light Source: (392) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

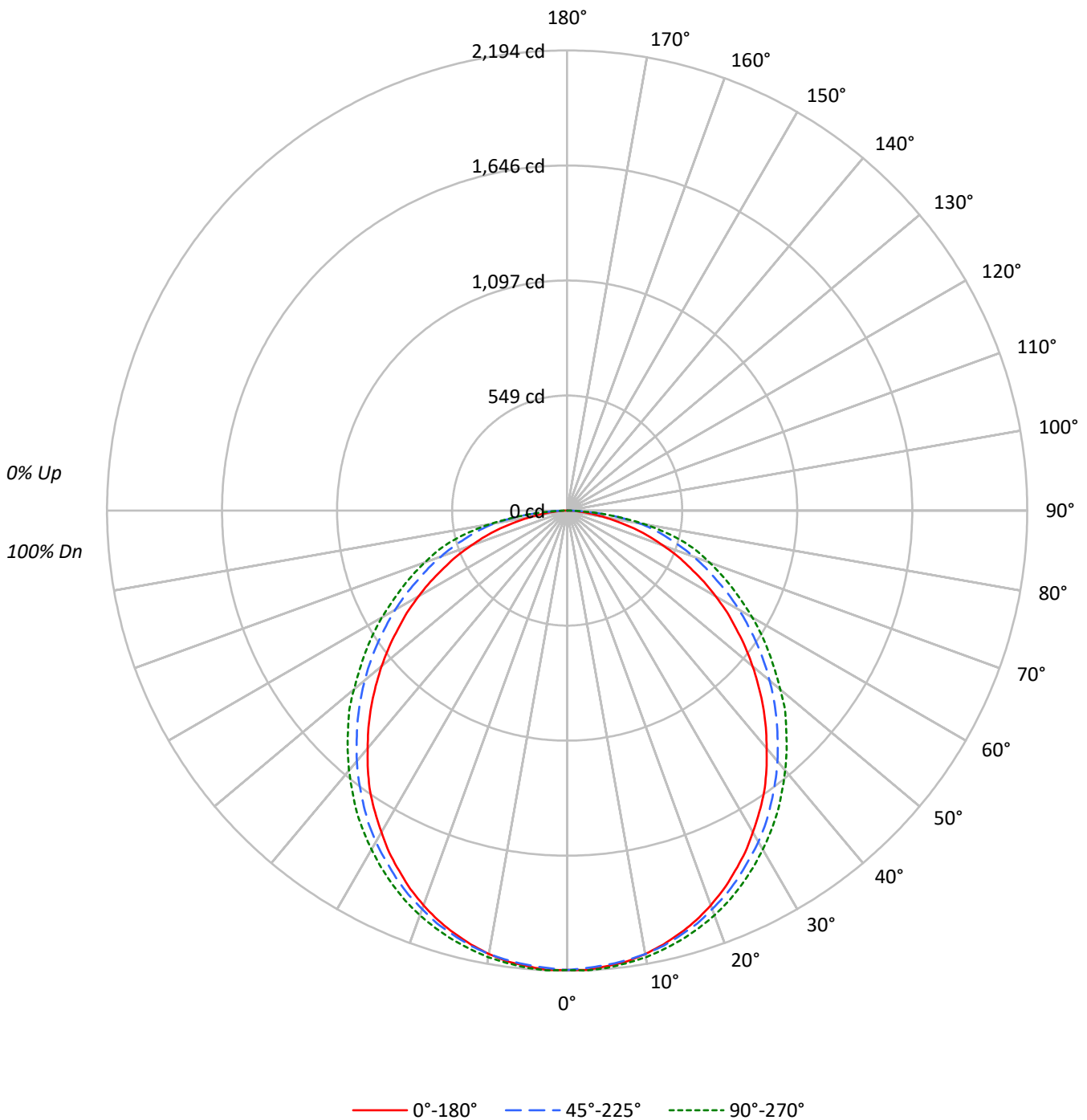
Lumens per Lamp: N/A
Luminaire Lumens: 6235.0 lumens
Efficiency: N/A
Efficacy: 122.3 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 51
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°	2947	2947	2947
5°	2945	2937	2956
10°	2933	2933	2955
15°	2905	2919	2949
20°	2867	2895	2941
25°	2814	2867	2923
30°	2751	2834	2898
35°	2690	2788	2876
40°	2598	2741	2842
45°	2514	2687	2811
50°	2417	2637	2777
55°	2309	2588	2750
60°	2201	2548	2745
65°	2062	2503	2762
70°	1909	2517	2836
75°	1709	2563	2996
80°	1381	2716	2931
85°	1039	2385	2323



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	207.4	3.3
10°-20°	592.5	9.5
20°-30°	890.7	14.3
30°-40°	1061.0	17.0
40°-50°	1085.8	17.4
50°-60°	977.6	15.7
60°-70°	767.7	12.3
70°-80°	498.3	8.0
80°-90°	154.1	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°	1690.6	27.1
0°-40°	2751.5	44.1
0°-60°	4814.9	77.2
0°-90°	6235.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6235.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2190	2190	2190	2190	2190	
5°	2180	2184	2175	2186	2188	207
15°	2085	2091	2095	2113	2117	588
25°	1895	1911	1931	1963	1969	873
35°	1638	1658	1697	1739	1751	1022
45°	1321	1353	1412	1466	1477	1018
55°	984	1028	1103	1161	1172	882
65°	648	697	786	852	867	645
75°	329	392	493	560	576	348
85°	67	125	154	150	150	81
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2190.4	2190.4	2190.4	2190.4	2190.4
2.5°	2192.4	2192.4	2182.5	2192.4	2194.4
5°	2180.5	2184.5	2174.6	2186.4	2188.4
7.5°	2168.6	2168.6	2162.7	2174.6	2176.5
10°	2146.8	2148.8	2146.8	2160.7	2162.7
12.5°	2119.1	2123.1	2125.0	2138.9	2140.9
15°	2085.4	2091.4	2095.3	2113.2	2117.1
17.5°	2047.8	2053.7	2063.6	2083.5	2087.4
20°	2002.3	2010.2	2022.1	2047.8	2053.7
22.5°	1952.7	1960.7	1980.5	2004.2	2014.1
25°	1895.3	1911.2	1931.0	1962.6	1968.6
27.5°	1837.9	1851.7	1877.5	1911.2	1919.1
30°	1770.5	1792.3	1824.0	1857.7	1865.6
32.5°	1705.2	1727.0	1764.6	1800.2	1810.1
35°	1637.8	1657.7	1697.3	1738.8	1750.7
37.5°	1560.6	1586.4	1629.9	1671.5	1683.4
40°	1479.4	1511.1	1560.6	1604.2	1618.0
42.5°	1402.2	1435.8	1485.4	1532.9	1548.7
45°	1321.0	1352.7	1412.1	1465.5	1477.4
47.5°	1237.8	1273.4	1336.8	1390.3	1410.1
50°	1154.6	1192.2	1259.6	1315.0	1326.9
52.5°	1071.4	1111.0	1182.3	1241.8	1247.7
55°	984.3	1027.9	1103.1	1160.6	1172.4
57.5°	905.1	942.7	1023.9	1083.3	1097.2
60°	817.9	859.5	946.7	1002.1	1019.9
62.5°	734.8	778.3	869.4	924.9	940.7
65°	647.6	697.1	786.2	851.6	867.4
67.5°	572.4	619.9	714.9	778.3	794.2
70°	485.2	538.7	639.7	705.0	720.9
72.5°	410.0	465.4	566.4	629.8	653.6
75°	328.8	392.1	493.1	560.5	576.3
77.5°	249.5	322.8	425.8	477.3	477.3
80°	178.2	255.5	350.5	374.3	378.3
82.5°	116.8	192.1	259.4	257.5	257.5
85°	67.3	124.8	154.5	150.5	150.5
87.5°	25.7	51.5	55.5	55.5	53.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)