

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: P271964

Luminaire Tested: **14CZ2-60HE-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: P271964
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-60HE-S-UNV-L950-CD1-U
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 90CRI
Light Source: (196) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

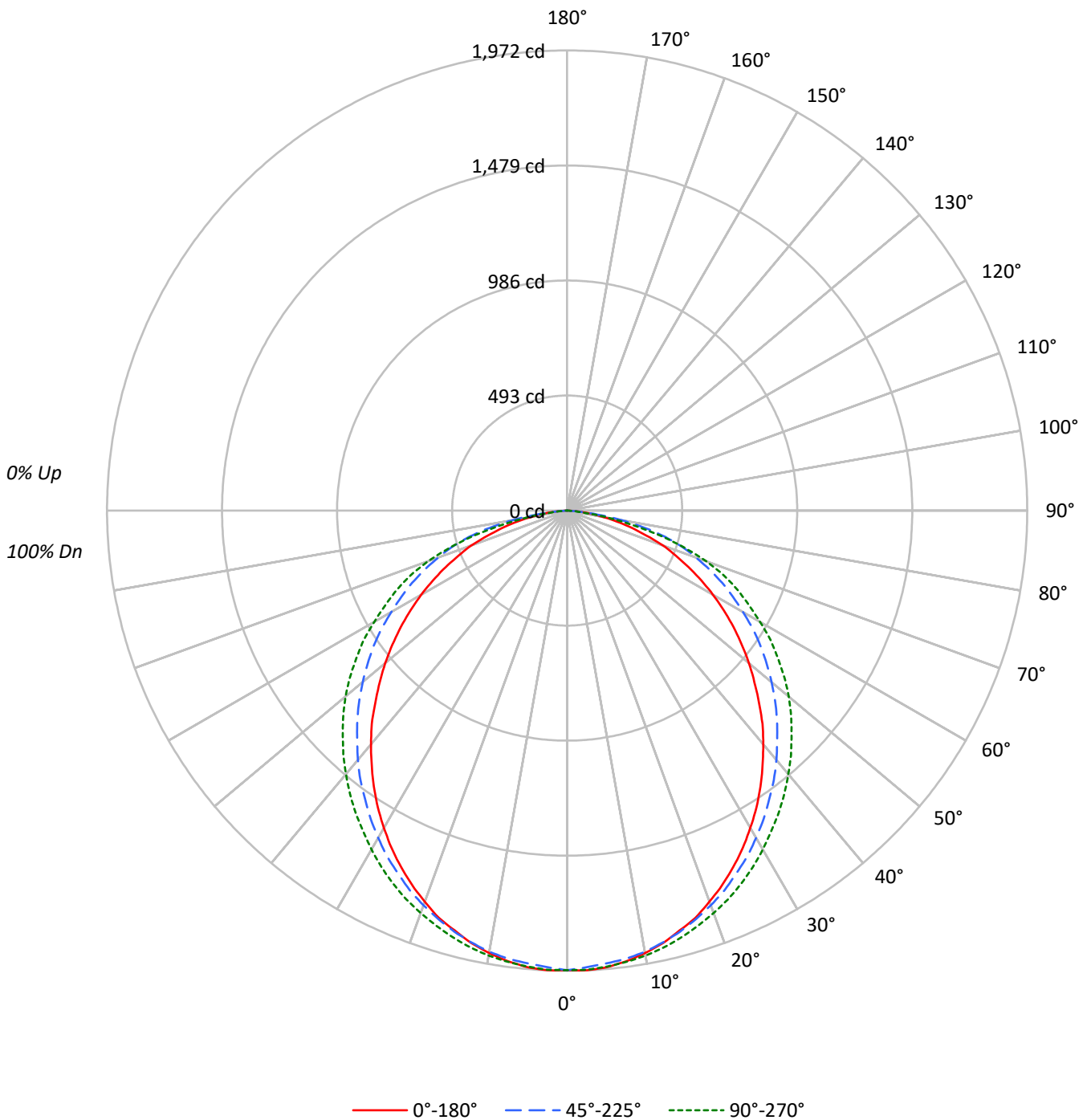
Lumens per Lamp: N/A
Luminaire Lumens: 5517.0 lumens
Efficiency: N/A
Efficacy: 114.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 48.3
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	109	104	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5300	5300	5300
5°	5305	5261	5298
10°	5262	5247	5292
15°	5190	5205	5273
20°	5107	5154	5256
25°	5003	5092	5239
30°	4879	5032	5210
35°	4745	4960	5194
40°	4593	4900	5179
45°	4424	4841	5174
50°	4260	4787	5187
55°	4081	4748	5172
60°	3886	4682	5138
65°	3657	4668	5138
70°	3444	4627	4993
75°	2986	4522	4266
80°	2416	3645	2841
85°	1606	1266	846



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	186.0	3.4
10°-20°	529.2	9.6
20°-30°	793.8	14.4
30°-40°	947.0	17.2
40°-50°	979.0	17.7
50°-60°	893.8	16.2
60°-70°	703.4	12.7
70°-80°	409.4	7.4
80°-90°	75.4	1.4
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°	1509.0	27.4
0°-40°	2456.0	44.5
0°-60°	4328.7	78.5
0°-90°	5517.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5517.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1970	1970	1970	1970	1970	
5°	1964	1958	1948	1964	1961	186
15°	1863	1866	1868	1893	1893	526
25°	1685	1693	1715	1756	1764	776
35°	1444	1463	1510	1567	1581	903
45°	1162	1201	1272	1343	1360	898
55°	870	916	1012	1086	1102	778
65°	574	635	733	790	807	570
75°	287	356	435	427	410	305
85°	52	74	41	33	27	67
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1969.5	1969.5	1969.5	1969.5	1969.5
2.5°	1972.2	1966.7	1958.5	1972.2	1969.5
5°	1964.0	1958.5	1947.6	1964.0	1961.3
7.5°	1947.6	1942.1	1936.7	1953.1	1950.3
10°	1925.7	1923.0	1920.2	1939.4	1936.7
12.5°	1898.4	1898.4	1895.6	1917.5	1917.5
15°	1862.8	1865.5	1868.3	1892.9	1892.9
17.5°	1830.0	1827.2	1835.4	1862.8	1865.5
20°	1783.5	1788.9	1799.9	1832.7	1835.4
22.5°	1737.0	1742.4	1761.6	1794.4	1802.6
25°	1685.0	1693.2	1715.1	1756.1	1764.3
27.5°	1630.3	1641.2	1671.3	1715.1	1723.3
30°	1570.1	1586.5	1619.3	1668.6	1676.8
32.5°	1509.9	1526.3	1567.4	1616.6	1627.6
35°	1444.3	1463.4	1509.9	1567.4	1581.1
37.5°	1375.9	1400.5	1455.2	1512.7	1529.1
40°	1307.5	1334.9	1395.0	1455.2	1474.4
42.5°	1239.1	1266.5	1332.1	1400.5	1419.7
45°	1162.5	1200.8	1272.0	1343.1	1359.5
47.5°	1088.7	1129.7	1209.0	1280.2	1302.0
50°	1017.6	1058.6	1143.4	1217.2	1239.1
52.5°	943.7	987.5	1077.7	1154.3	1173.5
55°	869.9	916.4	1012.1	1085.9	1102.4
57.5°	796.0	845.2	943.7	1014.8	1034.0
60°	722.1	774.1	869.9	941.0	954.6
62.5°	648.3	703.0	801.5	864.4	878.1
65°	574.4	634.6	733.1	790.5	806.9
67.5°	503.3	563.5	659.2	713.9	727.6
70°	437.7	492.4	588.1	629.1	634.6
72.5°	355.6	424.0	517.0	538.9	525.2
75°	287.2	355.6	434.9	426.7	410.3
77.5°	218.8	287.2	339.2	311.8	290.0
80°	155.9	224.3	235.2	194.2	183.3
82.5°	101.2	155.9	131.3	101.2	82.1
85°	52.0	73.9	41.0	32.8	27.4
87.5°	16.4	10.9	5.5	5.5	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)