

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: P475116

Luminaire Tested: **22CZ2-29HE-HRP-UNV-L830-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475116
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-29HE-HRP-UNV-L830-CD1-U
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS W/ HRP INSERT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2331.0 lumens
Efficiency: N/A
Efficacy: 111.5 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

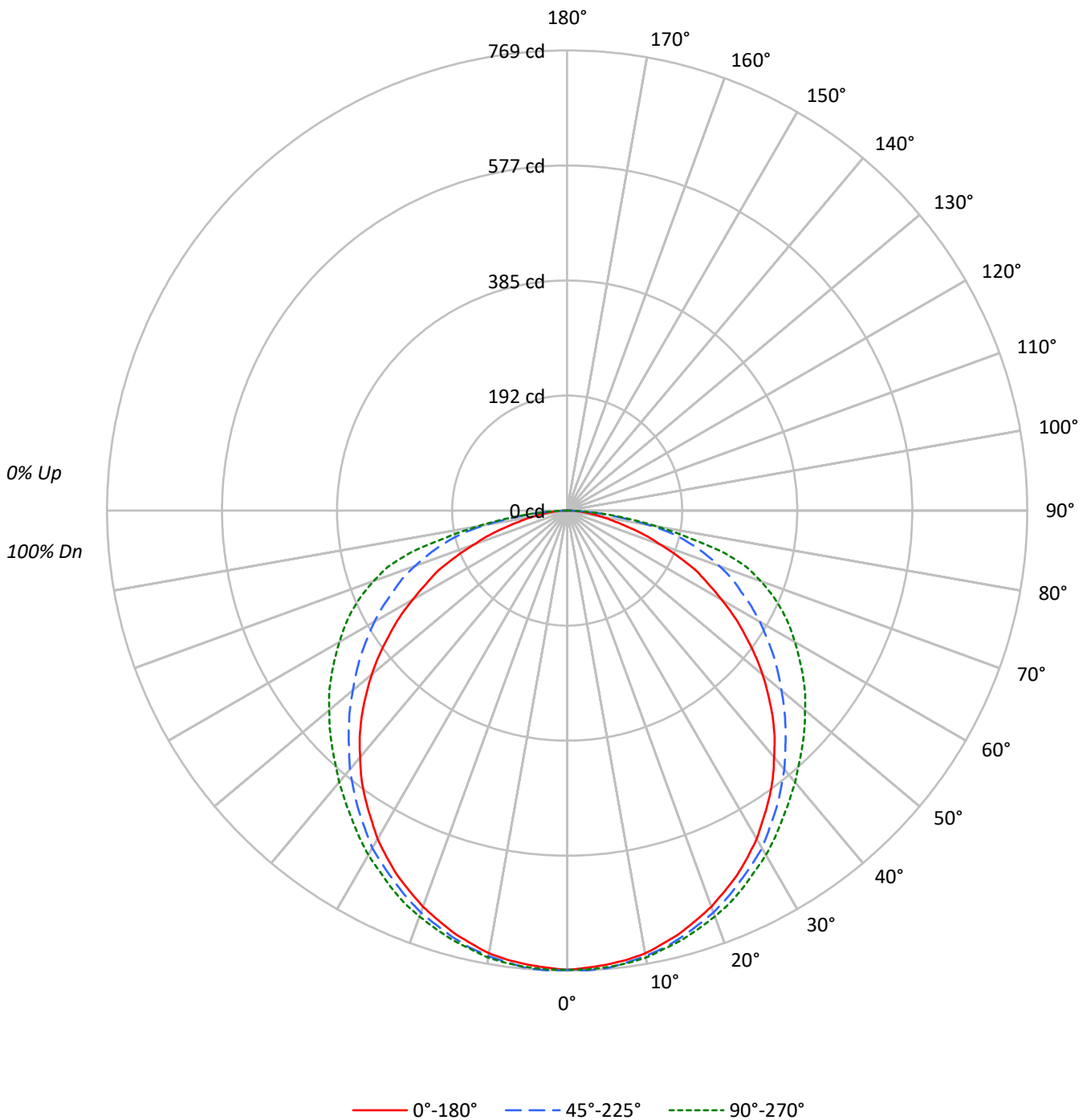
Input Watts (W): 20.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	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	39	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	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	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2065	2065	2065
5°	2058	2073	2069
10°	2053	2065	2073
15°	2036	2057	2069
20°	2017	2047	2067
25°	1996	2030	2065
30°	1969	2024	2065
35°	1932	2000	2063
40°	1890	1983	2082
45°	1847	1964	2115
50°	1785	1958	2173
55°	1704	1973	2256
60°	1607	2002	2366
65°	1517	2041	2528
70°	1296	2129	2707
75°	1085	2218	2813
80°	890	2142	2348
85°	769	1587	1723



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.7	3.1
10°-20°	208.1	8.9
20°-30°	315.4	13.5
30°-40°	380.8	16.3
40°-50°	400.1	17.2
50°-60°	376.5	16.2
60°-70°	313.9	13.5
70°-80°	208.0	8.9
80°-90°	55.4	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°	596.2	25.6
0°-40°	977.0	41.9
0°-60°	1753.6	75.2
0°-90°	2331.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2331.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	768	768	768	768	768	
5°	762	763	768	768	766	72
15°	731	734	738	741	743	206
25°	672	676	684	693	696	309
35°	588	594	609	622	628	368
45°	485	492	516	542	556	374
55°	363	379	421	463	481	325
65°	238	259	321	373	397	232
75°	104	146	213	257	271	113
85°	25	38	51	56	56	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	767.5	767.5	767.5	767.5	767.5
2.5°	764.7	766.1	769.1	769.1	767.5
5°	761.7	763.1	767.5	767.5	766.1
7.5°	757.3	758.8	761.7	764.7	763.1
10°	751.4	752.8	755.8	758.8	758.8
12.5°	741.2	742.6	748.4	750.0	750.0
15°	730.8	733.7	738.2	741.2	742.6
17.5°	717.6	720.5	726.3	732.3	732.3
20°	704.4	707.2	714.7	720.5	721.9
22.5°	688.2	692.6	700.0	707.2	710.2
25°	672.1	676.5	683.7	692.6	695.6
27.5°	652.8	657.2	667.6	677.9	679.3
30°	633.7	638.1	651.4	660.2	664.6
32.5°	610.2	616.1	629.3	642.6	647.0
35°	588.1	594.1	608.8	622.0	627.9
37.5°	564.6	570.5	586.7	603.0	610.2
40°	538.1	545.5	564.6	582.3	592.6
42.5°	513.2	520.6	539.7	563.2	573.5
45°	485.3	492.5	516.2	542.5	555.8
47.5°	455.8	464.6	492.5	525.0	538.1
50°	426.4	436.7	467.6	504.4	519.0
52.5°	395.5	408.8	444.1	483.8	501.4
55°	363.2	379.4	420.6	463.2	480.9
57.5°	332.3	347.1	395.5	441.1	460.2
60°	298.5	317.6	372.0	419.0	439.7
62.5°	266.1	286.8	347.1	397.1	419.0
65°	238.2	258.7	320.6	373.4	397.1
67.5°	201.5	229.4	298.5	348.5	372.0
70°	164.7	202.9	270.6	322.0	344.1
72.5°	136.8	173.5	242.6	294.1	314.7
75°	104.4	145.6	213.3	257.3	270.6
77.5°	77.9	120.5	182.4	204.5	205.9
80°	57.4	92.6	138.2	145.6	151.5
82.5°	39.8	64.7	89.8	98.4	101.4
85°	24.9	38.2	51.4	55.8	55.8
87.5°	13.3	14.7	17.7	17.7	17.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)