

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: P475122

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

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475122
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-29VHE-HRP-UNV-L830-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY 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: 2285.6 lumens
Efficiency: N/A
Efficacy: 114.9 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

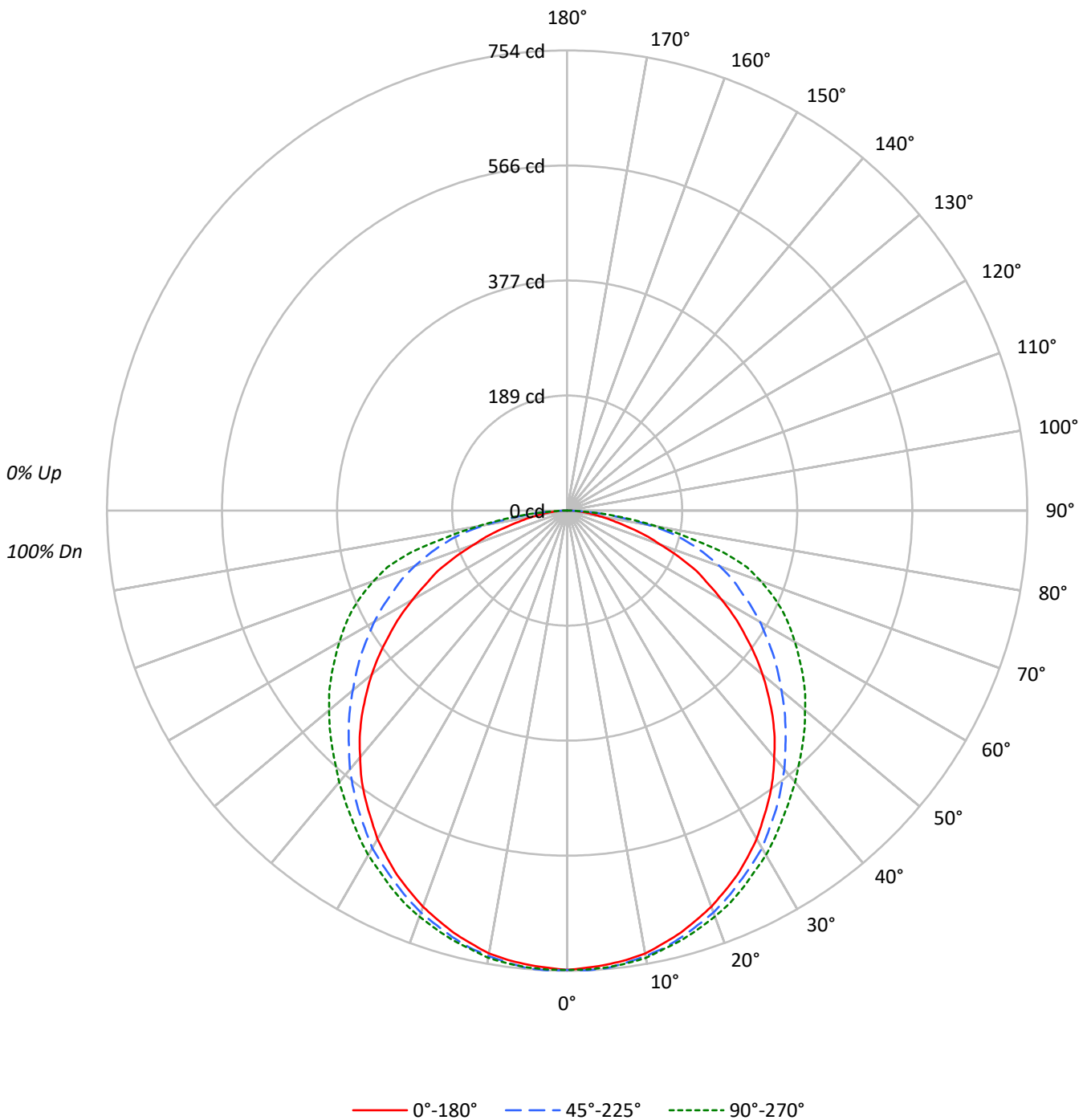
Input Watts (W): 19.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2025	2025	2025
5°	2018	2033	2029
10°	2013	2025	2033
15°	1996	2016	2028
20°	1978	2007	2027
25°	1957	1991	2025
30°	1931	1985	2025
35°	1895	1961	2023
40°	1854	1945	2041
45°	1811	1926	2074
50°	1750	1919	2130
55°	1671	1935	2212
60°	1575	1963	2320
65°	1487	2001	2479
70°	1271	2087	2655
75°	1065	2174	2758
80°	872	2100	2301
85°	753	1556	1692



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.3	3.1
10°-20°	204.0	8.9
20°-30°	309.2	13.5
30°-40°	373.4	16.3
40°-50°	392.4	17.2
50°-60°	369.2	16.2
60°-70°	307.8	13.5
70°-80°	204.0	8.9
80°-90°	54.3	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°	584.6	25.6
0°-40°	958.0	41.9
0°-60°	1719.5	75.2
0°-90°	2285.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2285.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	753	753	753	753	753	
5°	747	748	753	753	751	71
15°	716	720	724	727	728	202
25°	659	663	670	679	682	303
35°	577	583	597	610	616	361
45°	476	483	506	532	545	366
55°	356	372	412	454	472	319
65°	234	254	314	366	389	227
75°	102	143	209	252	265	111
85°	24	37	50	55	55	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	752.6	752.6	752.6	752.6	752.6
2.5°	749.8	751.2	754.1	754.1	752.6
5°	746.9	748.3	752.6	752.6	751.2
7.5°	742.5	744.1	746.9	749.8	748.3
10°	736.8	738.2	741.1	744.1	744.1
12.5°	726.7	728.1	733.9	735.4	735.4
15°	716.5	719.5	723.8	726.7	728.1
17.5°	703.7	706.5	712.2	718.1	718.1
20°	690.7	693.5	700.8	706.5	707.9
22.5°	674.8	679.1	686.4	693.5	696.4
25°	659.0	663.3	670.4	679.1	682.0
27.5°	640.1	644.5	654.6	664.7	666.1
30°	621.4	625.7	638.7	647.4	651.7
32.5°	598.3	604.1	617.1	630.1	634.4
35°	576.7	582.6	597.0	609.9	615.7
37.5°	553.6	559.4	575.3	591.2	598.3
40°	527.7	534.9	553.6	571.0	581.0
42.5°	503.2	510.5	529.2	552.2	562.3
45°	475.8	483.0	506.1	532.0	545.0
47.5°	446.9	455.6	483.0	514.8	527.7
50°	418.1	428.2	458.5	494.5	508.9
52.5°	387.8	400.8	435.5	474.4	491.6
55°	356.1	372.0	412.4	454.2	471.5
57.5°	325.8	340.3	387.8	432.5	451.2
60°	292.7	311.4	364.8	410.9	431.1
62.5°	261.0	281.2	340.3	389.4	410.9
65°	233.6	253.7	314.3	366.2	389.4
67.5°	197.5	224.9	292.7	341.7	364.8
70°	161.5	198.9	265.3	315.7	337.4
72.5°	134.1	170.2	237.9	288.3	308.6
75°	102.4	142.8	209.1	252.3	265.3
77.5°	76.4	118.2	178.8	200.5	201.9
80°	56.3	90.8	135.5	142.8	148.5
82.5°	39.0	63.4	88.0	96.5	99.5
85°	24.4	37.4	50.4	54.8	54.8
87.5°	13.0	14.4	17.3	17.3	17.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)