

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: P474000

Luminaire Tested: **24CZ2-130VHE-S-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474000
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-130VHE-S-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12809.8 lumens
Efficiency: N/A
Efficacy: 138.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

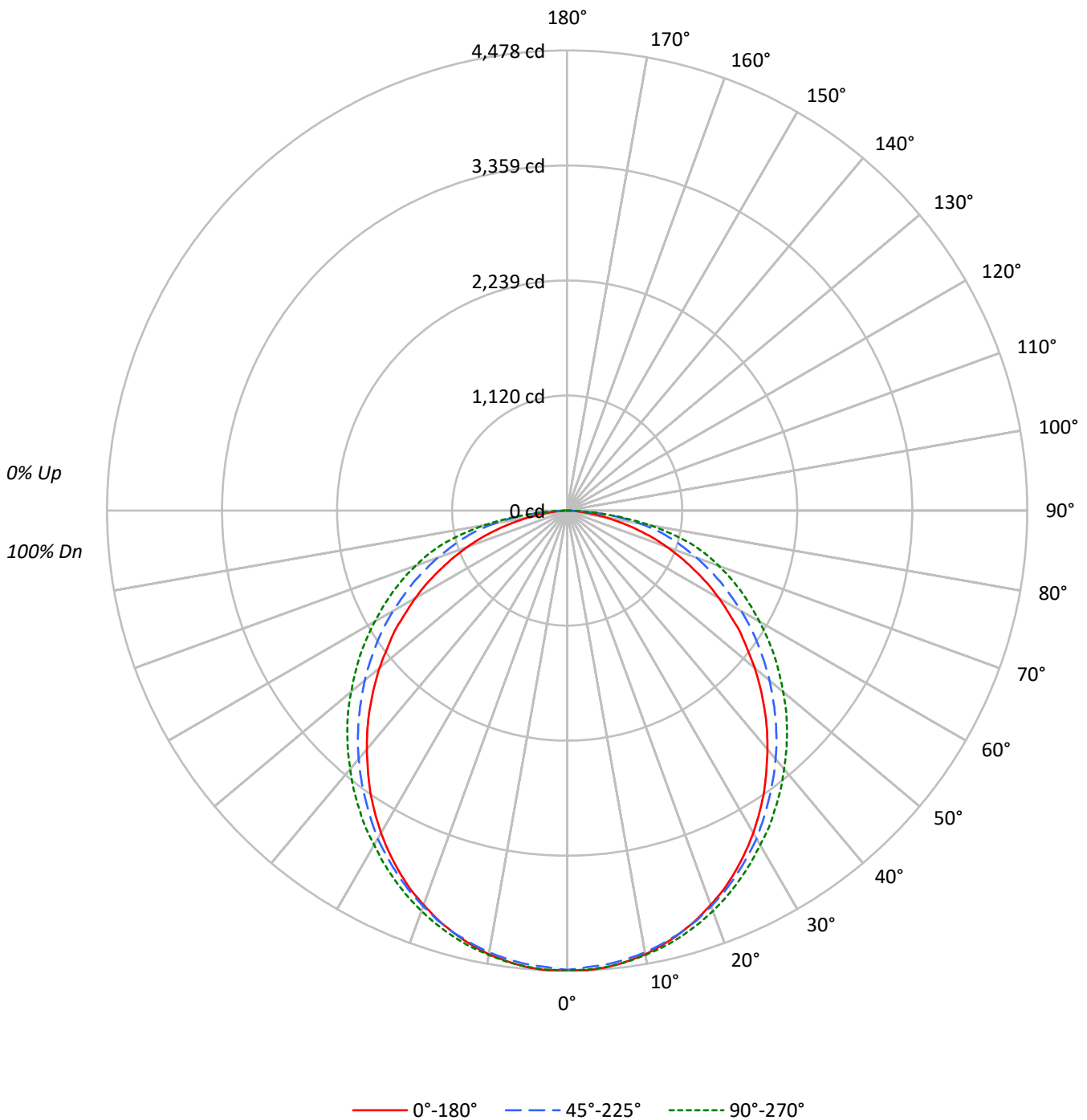
Input Watts (W): 92.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	105	101	97	93	97	93	90		93	90	87		89	87	85	83
2	98	90	83	77	95	88	81	76	84	79	74		81	76	72		78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62		71	65	61		68	64	59	57
4	82	69	60	54	79	68	60	53	66	58	52		63	57	52		61	55	51	49
5	75	62	53	46	73	61	52	46	59	51	45		57	50	45		55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40		51	44	39		50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35		47	40	35		45	39	34	32
8	60	46	38	32	58	45	37	31	44	37	31		43	36	31		42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		38	32	28	26
10	52	39	31	26	51	39	31	26	38	30	26		37	30	25		36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6016	6016	6016
5°	6025	5988	6019
10°	5991	5965	5999
15°	5929	5926	5976
20°	5848	5866	5938
25°	5751	5801	5891
30°	5629	5727	5835
35°	5488	5627	5803
40°	5325	5543	5769
45°	5165	5457	5757
50°	4990	5382	5743
55°	4812	5316	5775
60°	4592	5266	5815
65°	4348	5245	5955
70°	4056	5273	6166
75°	3609	5425	6497
80°	2951	5543	6342
85°	2079	4840	4937



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	422.7	3.3
10°-20°	1203.9	9.4
20°-30°	1804.7	14.1
30°-40°	2149.4	16.8
40°-50°	2216.2	17.3
50°-60°	2022.3	15.8
60°-70°	1617.1	12.6
70°-80°	1056.3	8.2
80°-90°	317.2	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°	3431.3	26.8
0°-40°	5580.7	43.6
0°-60°	9819.2	76.7
0°-90°	12809.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12809.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4471	4471	4471	4471	4471	
5°	4461	4452	4433	4461	4456	423
15°	4257	4259	4254	4290	4290	1200
25°	3874	3880	3907	3964	3968	1783
35°	3341	3364	3426	3512	3533	2087
45°	2714	2763	2868	2988	3026	2093
55°	2052	2110	2266	2416	2462	1827
65°	1366	1458	1648	1810	1870	1354
75°	694	810	1044	1212	1250	738
85°	135	242	314	320	320	171
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4471.2	4471.2	4471.2	4471.2	4471.2
2.5°	4477.5	4471.2	4448.0	4475.4	4471.2
5°	4460.7	4452.2	4433.3	4460.7	4456.5
7.5°	4427.0	4422.8	4403.9	4435.4	4431.2
10°	4384.9	4380.7	4366.0	4397.5	4391.2
12.5°	4326.0	4323.9	4313.4	4351.3	4347.0
15°	4256.6	4258.7	4254.5	4290.2	4290.2
17.5°	4176.6	4174.5	4182.9	4227.1	4222.9
20°	4084.0	4086.1	4096.7	4147.2	4147.2
22.5°	3987.2	3985.1	4008.3	4058.8	4063.0
25°	3873.6	3879.9	3907.3	3964.1	3968.3
27.5°	3751.6	3762.1	3795.8	3861.0	3867.3
30°	3623.2	3635.9	3686.4	3747.4	3755.8
32.5°	3482.3	3509.6	3555.9	3633.8	3654.8
35°	3341.3	3364.4	3425.5	3511.7	3532.8
37.5°	3185.6	3223.5	3292.9	3387.6	3414.9
40°	3032.0	3069.9	3156.1	3255.0	3284.5
42.5°	2876.3	2916.3	3015.2	3126.7	3158.2
45°	2714.3	2762.7	2867.9	2987.8	3025.7
47.5°	2548.0	2604.9	2718.5	2848.9	2891.0
50°	2383.9	2440.7	2571.2	2705.9	2743.7
52.5°	2207.2	2278.7	2417.6	2562.8	2600.7
55°	2051.5	2110.4	2266.1	2415.5	2461.8
57.5°	1868.4	1948.4	2114.6	2266.1	2310.3
60°	1706.4	1780.1	1956.8	2110.4	2160.9
62.5°	1542.3	1618.0	1794.8	1969.4	2015.7
65°	1365.6	1458.1	1647.5	1809.5	1870.5
67.5°	1197.2	1294.0	1487.6	1660.1	1723.2
70°	1031.0	1129.9	1340.3	1517.0	1567.5
72.5°	866.9	970.0	1188.8	1361.3	1420.3
75°	694.3	810.1	1043.6	1212.0	1249.8
77.5°	532.3	660.7	896.3	1010.0	1037.3
80°	380.8	521.8	715.4	797.4	818.5
82.5°	250.4	387.2	534.4	578.6	572.3
85°	134.7	242.0	313.5	319.8	319.8
87.5°	52.6	96.8	98.9	75.7	71.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)