

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: P474361

Luminaire Tested: **24CZ2-30-HRP-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474361
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-30-HRP-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS W/ HRP INSERT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

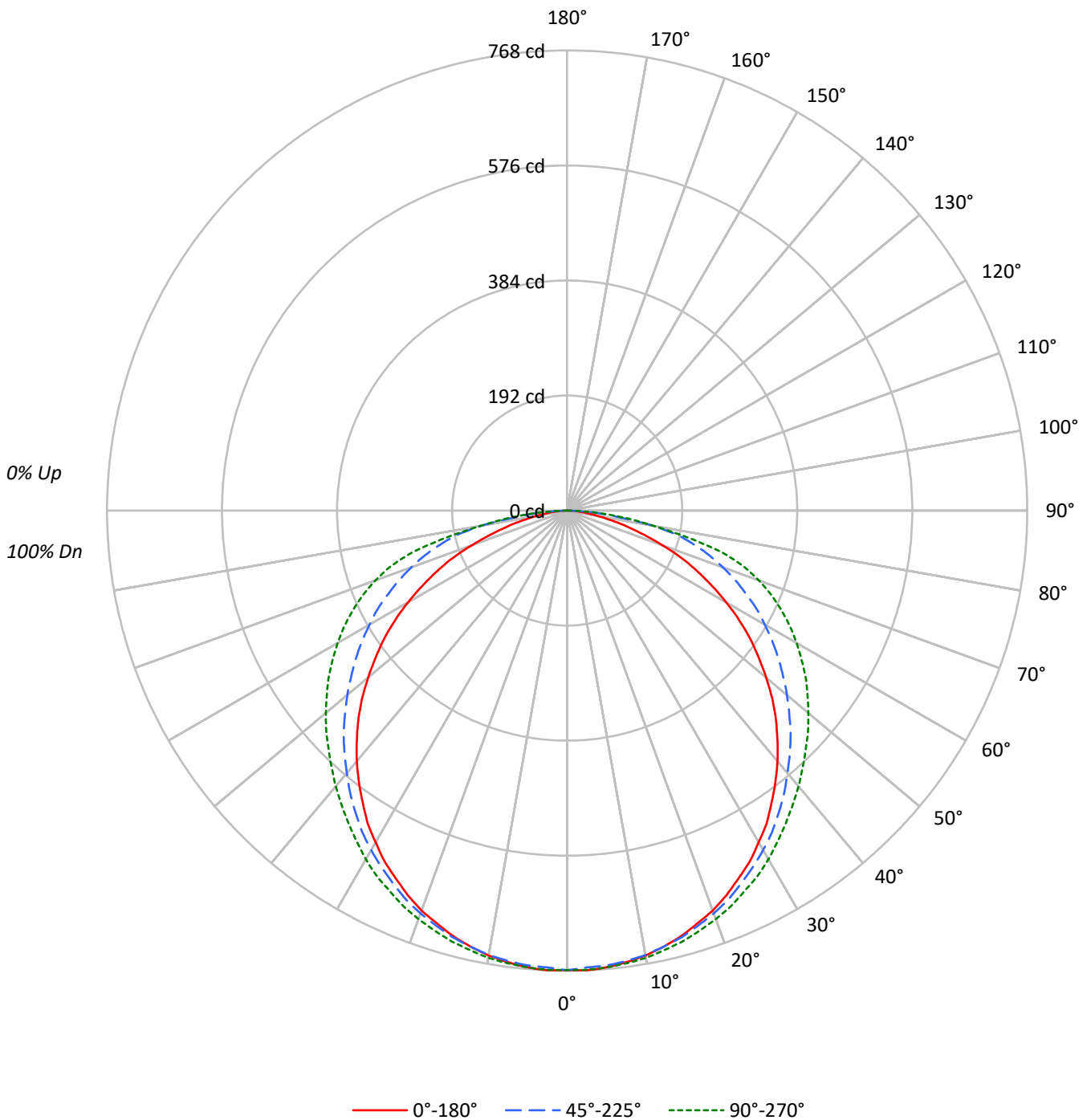
Lumens per Lamp: N/A
Luminaire Lumens: 2364.0 lumens
Efficiency: N/A
Efficacy: 100.2 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.6
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	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	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	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	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	24	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1032	1032	1032
5°	1033	1029	1033
10°	1030	1029	1036
15°	1024	1027	1037
20°	1017	1024	1039
25°	1005	1020	1040
30°	993	1016	1044
35°	977	1011	1045
40°	960	1005	1055
45°	938	1004	1071
50°	907	1003	1100
55°	875	1010	1140
60°	826	1025	1190
65°	762	1049	1257
70°	666	1086	1340
75°	540	1142	1384
80°	399	1120	1120
85°	306	824	931



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.7	3.1
10°-20°	208.7	8.8
20°-30°	317.7	13.4
30°-40°	385.7	16.3
40°-50°	407.5	17.2
50°-60°	384.5	16.3
60°-70°	319.7	13.5
70°-80°	210.3	8.9
80°-90°	57.3	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°	599.0	25.3
0°-40°	984.7	41.7
0°-60°	1776.7	75.2
0°-90°	2364.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2364.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	767	767	767	767	767	
5°	765	765	762	765	765	73
15°	735	736	737	744	744	207
25°	677	681	687	699	701	312
35°	595	602	616	631	636	372
45°	493	503	528	553	563	380
55°	373	389	430	471	486	332
65°	240	267	330	378	395	237
75°	104	152	220	260	266	112
85°	20	44	53	59	60	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	767.0	767.0	767.0	767.0	767.0
2.5°	768.0	767.0	763.1	767.0	767.0
5°	765.1	765.1	762.0	765.1	765.1
7.5°	760.1	760.1	758.1	762.0	762.0
10°	754.1	754.1	753.2	758.1	758.1
12.5°	745.3	746.2	745.3	751.2	751.2
15°	735.3	736.3	737.4	744.3	744.3
17.5°	722.5	724.5	726.5	734.3	735.3
20°	710.6	711.6	715.5	724.5	725.5
22.5°	694.8	697.7	702.7	711.6	714.6
25°	676.9	680.9	686.9	698.8	700.7
27.5°	660.2	663.1	671.0	683.9	687.9
30°	639.3	644.3	654.2	667.1	672.0
32.5°	619.5	624.5	636.4	650.2	654.2
35°	594.8	601.7	615.6	631.4	636.4
37.5°	571.1	578.0	594.8	612.6	618.6
40°	546.3	554.2	572.1	592.8	600.7
42.5°	519.6	530.4	550.2	573.0	581.9
45°	492.9	502.8	527.5	553.2	563.1
47.5°	464.2	476.1	502.8	533.5	545.4
50°	433.5	448.4	479.0	512.7	525.6
52.5°	402.9	419.6	454.3	491.8	505.8
55°	373.1	388.9	430.5	471.1	485.9
57.5°	340.5	360.3	405.8	449.3	464.2
60°	306.8	328.6	381.0	426.5	442.4
62.5°	273.1	297.9	357.2	402.9	419.6
65°	239.5	267.3	329.6	378.1	394.9
67.5°	206.8	237.5	303.8	352.4	369.1
70°	169.2	207.8	276.1	323.6	340.5
72.5°	134.6	179.2	249.4	294.0	308.8
75°	103.9	151.5	219.7	260.2	266.2
77.5°	76.2	123.7	189.0	202.9	203.9
80°	51.5	98.9	144.5	142.5	144.5
82.5°	33.6	74.3	91.0	102.0	102.9
85°	19.8	43.6	53.4	59.4	60.3
87.5°	9.9	14.8	18.8	19.8	21.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)