

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: P474362

Luminaire Tested: **24CZ2-35-HRP-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474362
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-35-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

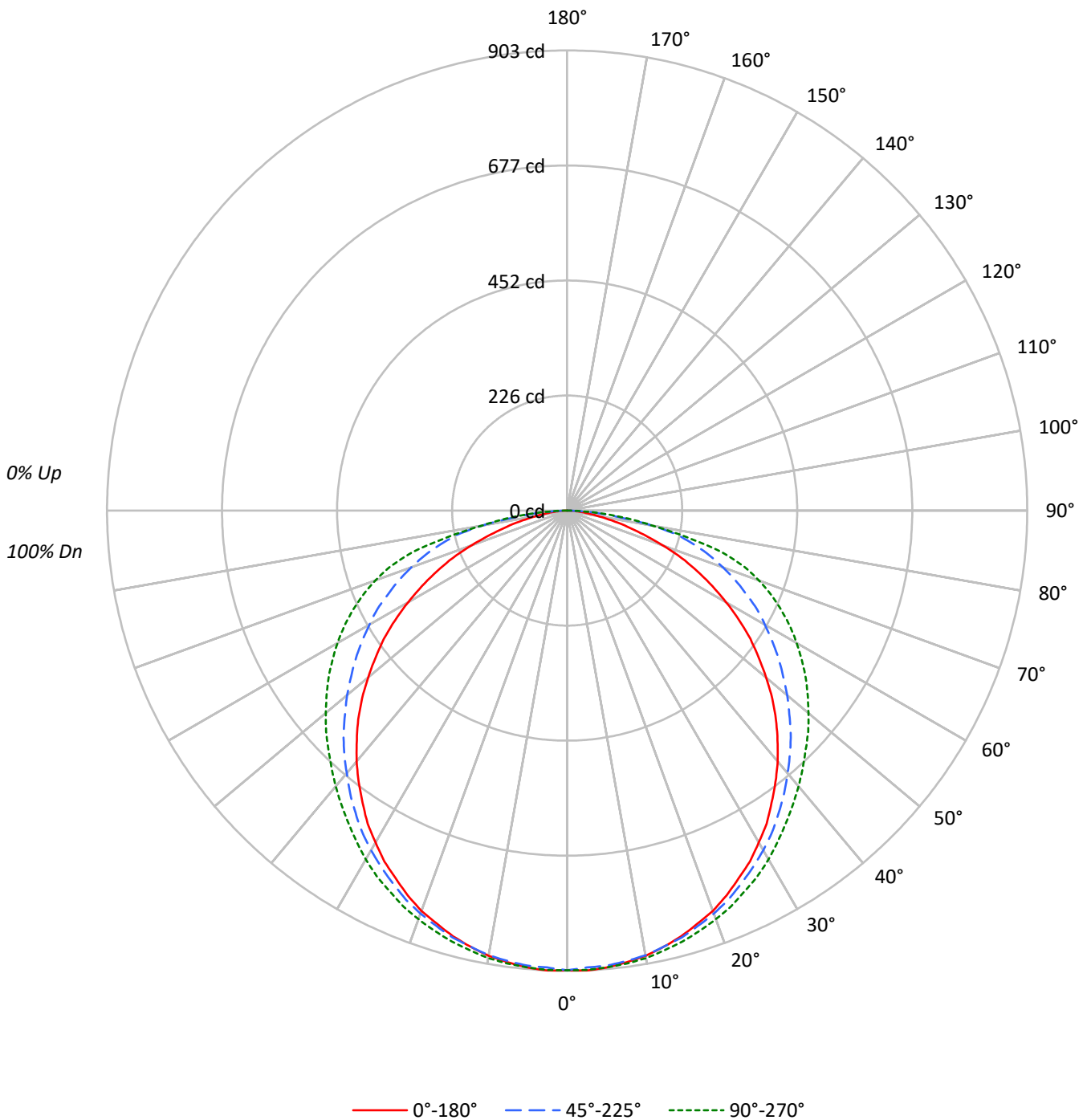
Lumens per Lamp: N/A
Luminaire Lumens: 2780.7 lumens
Efficiency: N/A
Efficacy: 100.8 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 27.6
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°	1214	1214	1214
5°	1215	1211	1215
10°	1212	1210	1218
15°	1205	1208	1219
20°	1197	1205	1222
25°	1182	1199	1224
30°	1168	1196	1228
35°	1149	1189	1230
40°	1129	1182	1241
45°	1103	1181	1260
50°	1067	1180	1294
55°	1030	1188	1341
60°	971	1206	1400
65°	897	1234	1479
70°	783	1278	1576
75°	635	1343	1628
80°	470	1317	1317
85°	360	969	1096



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.5	3.1
10°-20°	245.4	8.8
20°-30°	373.6	13.4
30°-40°	453.7	16.3
40°-50°	479.3	17.2
50°-60°	452.3	16.3
60°-70°	376.1	13.5
70°-80°	247.4	8.9
80°-90°	67.4	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°	704.5	25.3
0°-40°	1158.2	41.7
0°-60°	2089.8	75.2
0°-90°	2780.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2780.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	902	902	902	902	902	
5°	900	900	896	900	900	85
15°	865	866	867	875	875	244
25°	796	801	808	822	824	367
35°	700	708	724	743	749	438
45°	580	591	620	651	662	446
55°	439	458	506	554	572	391
65°	282	314	388	445	464	278
75°	122	178	258	306	313	132
85°	23	51	63	70	71	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	902.2	902.2	902.2	902.2	902.2
2.5°	903.4	902.2	897.5	902.2	902.2
5°	899.9	899.9	896.3	899.9	899.9
7.5°	894.1	894.1	891.7	896.3	896.3
10°	887.0	887.0	886.0	891.7	891.7
12.5°	876.6	877.7	876.6	883.6	883.6
15°	864.9	866.1	867.3	875.4	875.4
17.5°	849.9	852.1	854.5	863.7	864.9
20°	835.9	837.0	841.6	852.1	853.3
22.5°	817.3	820.7	826.6	837.0	840.6
25°	796.2	800.9	807.9	821.9	824.2
27.5°	776.5	780.0	789.3	804.5	809.1
30°	752.0	757.9	769.5	784.6	790.5
32.5°	728.7	734.6	748.6	764.8	769.5
35°	699.7	707.8	724.1	742.7	748.6
37.5°	671.7	679.8	699.7	720.6	727.6
40°	642.6	651.9	672.9	697.3	706.6
42.5°	611.1	623.9	647.2	674.0	684.5
45°	579.7	591.4	620.5	650.7	662.4
47.5°	546.0	560.0	591.4	627.5	641.5
50°	509.9	527.4	563.5	603.0	618.2
52.5°	473.9	493.6	534.3	578.5	594.9
55°	438.9	457.5	506.4	554.2	571.6
57.5°	400.5	423.8	477.3	528.5	546.0
60°	360.8	386.5	448.2	501.7	520.3
62.5°	321.3	350.4	420.2	473.9	493.6
65°	281.7	314.4	387.7	444.7	464.5
67.5°	243.3	279.3	357.4	414.5	434.2
70°	199.1	244.5	324.8	380.7	400.5
72.5°	158.3	210.8	293.3	345.8	363.2
75°	122.2	178.1	258.4	306.1	313.2
77.5°	89.6	145.5	222.4	238.6	239.8
80°	60.6	116.4	170.0	167.6	170.0
82.5°	39.5	87.3	107.1	120.0	121.0
85°	23.3	51.3	62.8	69.9	71.0
87.5°	11.6	17.4	22.1	23.3	25.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)