

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: P474287

Luminaire Tested: **24CZ2-60VHE-RDP-UNV-L840-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474287
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-60VHE-RDP-UNV-L840-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS W/ RDP
INSERT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4101.2 lumens
Efficiency: N/A
Efficacy: 100.8 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

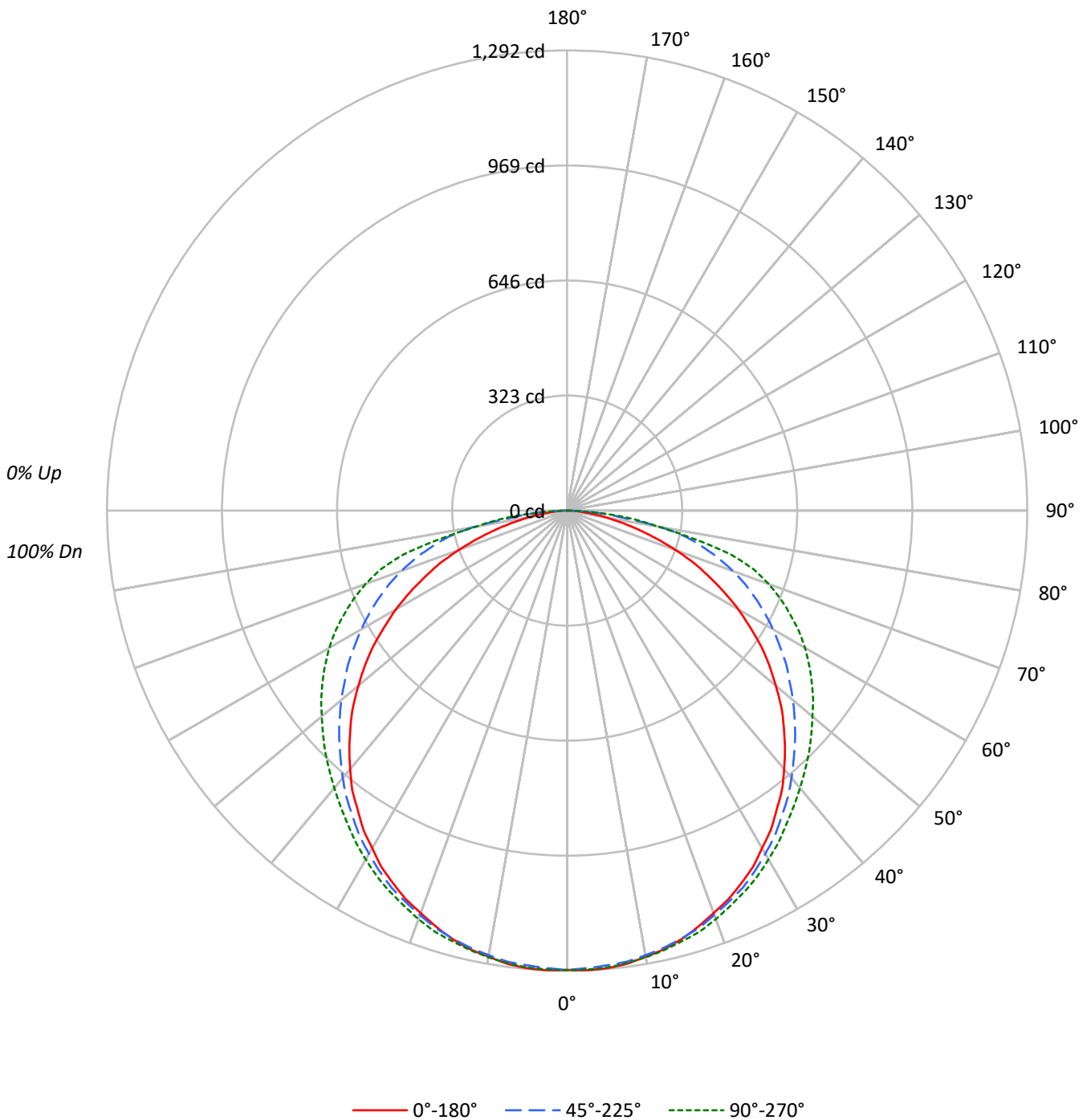
Input Watts (W): 40.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82					82			
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67					67			
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56					56			
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47					47			
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40					40			
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35					35			
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31					31			
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27					27			
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24					24			
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22					22			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1735	1735	1735
5°	1742	1731	1739
10°	1737	1732	1740
15°	1734	1731	1743
20°	1722	1730	1748
25°	1715	1734	1752
30°	1700	1729	1757
35°	1684	1724	1764
40°	1665	1722	1786
45°	1637	1723	1827
50°	1601	1733	1882
55°	1560	1761	1966
60°	1495	1795	2075
65°	1399	1858	2202
70°	1272	1945	2368
75°	1078	2051	2475
80°	852	2064	2001
85°	628	1572	1760



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.3	3.0
10°-20°	352.1	8.6
20°-30°	538.4	13.1
30°-40°	658.2	16.0
40°-50°	701.5	17.1
50°-60°	670.7	16.4
60°-70°	568.2	13.9
70°-80°	381.9	9.3
80°-90°	107.8	2.6
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°	1012.9	24.7
0°-40°	1671.1	40.7
0°-60°	3043.4	74.2
0°-90°	4101.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4101.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1290	1290	1290	1290	1290	
5°	1290	1288	1282	1288	1288	123
15°	1245	1245	1243	1253	1251	351
25°	1155	1160	1168	1178	1180	533
35°	1025	1033	1050	1070	1074	642
45°	860	875	905	944	960	664
55°	665	690	751	810	838	592
65°	439	484	584	661	692	436
75°	207	283	395	462	476	222
85°	41	83	102	110	114	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1289.8	1289.8	1289.8	1289.8	1289.8
2.5°	1291.8	1291.8	1285.7	1289.8	1289.8
5°	1289.8	1287.7	1281.6	1287.7	1287.7
7.5°	1283.7	1281.6	1277.6	1283.7	1281.6
10°	1271.5	1271.5	1267.4	1273.5	1273.5
12.5°	1261.3	1259.2	1257.2	1265.4	1263.3
15°	1245.0	1245.0	1243.0	1253.1	1251.1
17.5°	1224.6	1226.7	1228.7	1236.9	1238.9
20°	1202.3	1206.3	1208.4	1220.6	1220.6
22.5°	1181.9	1183.9	1188.0	1200.2	1200.2
25°	1155.4	1159.5	1167.7	1177.8	1179.9
27.5°	1129.0	1131.0	1141.2	1155.4	1157.5
30°	1094.4	1100.5	1112.7	1129.0	1131.0
32.5°	1063.9	1070.0	1084.2	1100.5	1104.6
35°	1025.2	1033.3	1049.6	1070.0	1074.0
37.5°	990.6	996.7	1017.0	1039.4	1045.5
40°	948.0	960.1	980.4	1006.9	1017.0
42.5°	905.3	917.5	941.9	976.3	988.6
45°	860.5	874.8	905.3	944.0	960.1
47.5°	815.8	832.0	866.6	911.4	929.7
50°	764.9	785.2	828.0	878.8	899.2
52.5°	716.0	740.4	787.3	844.2	870.7
55°	665.1	689.6	750.6	809.6	838.1
57.5°	608.2	640.7	707.9	775.0	805.6
60°	555.4	585.8	667.2	740.4	771.0
62.5°	498.4	539.2	626.5	703.8	734.3
65°	439.4	484.2	583.7	661.1	691.6
67.5°	386.5	435.4	541.2	618.3	648.9
70°	323.4	384.5	494.4	571.5	602.0
72.5°	264.4	331.6	445.5	520.8	549.3
75°	207.4	282.7	394.6	461.8	476.1
77.5°	154.7	233.9	341.7	370.2	360.0
80°	109.9	187.2	266.4	252.2	258.3
82.5°	71.2	142.5	164.9	187.2	193.2
85°	40.7	83.4	101.8	109.9	114.0
87.5°	18.3	30.5	40.7	40.7	38.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)