

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: P476009

Luminaire Tested: **22GR-LD5-60-A19/156-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P476009
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22GR-LD5-60-A19/156-UNV-L840-CD1-U
Description: GR 2'X2' LED TROFFER w/ A19/156 LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5780.0 lumens
Efficiency: N/A
Efficacy: 130.2 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.22 / 1.23
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

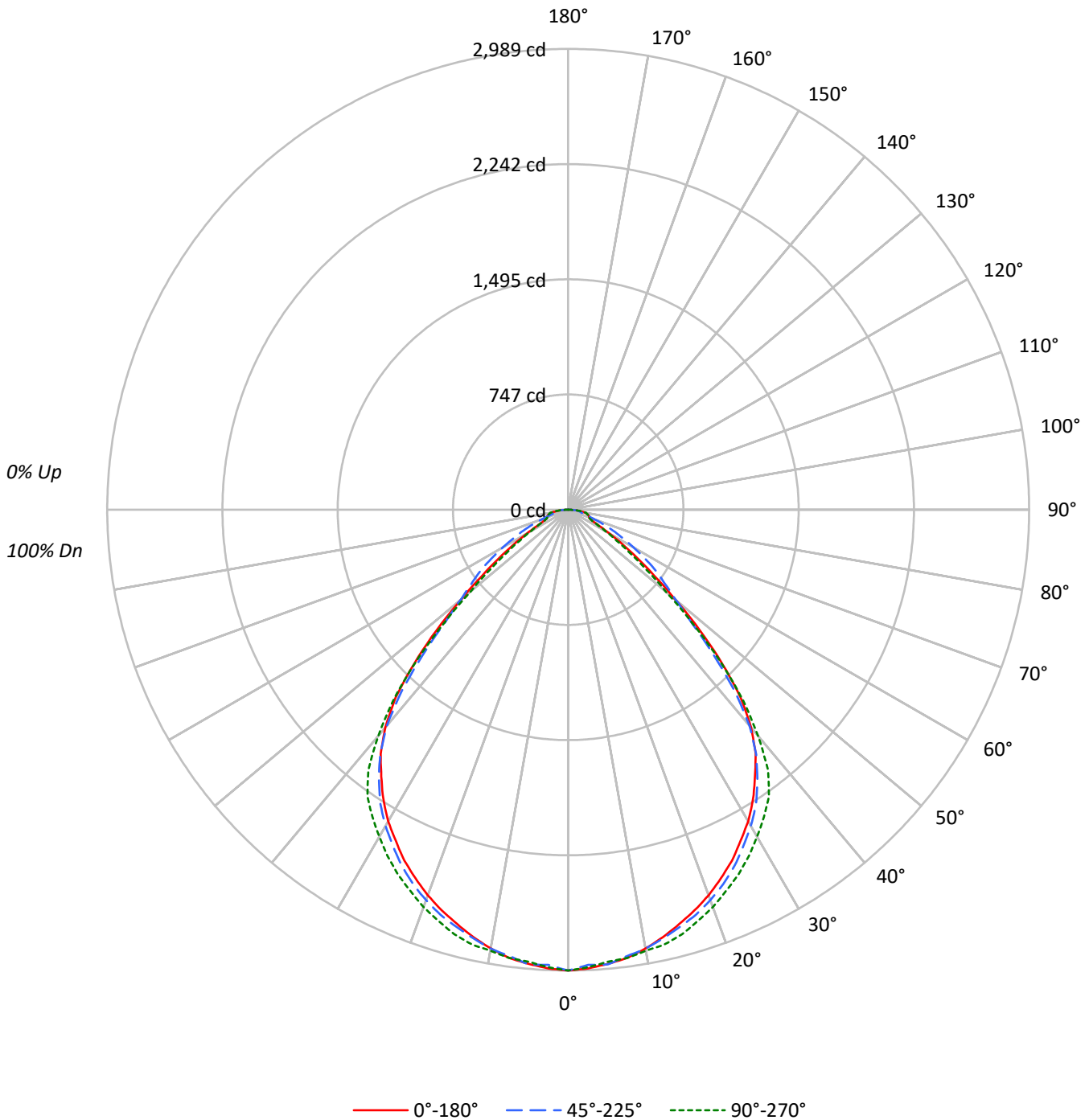
Input Watts (W): 44.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	111	107	103	100	108	105	101	99	100	98	95	97	95	93	93	91	90	88					88			
2	103	96	90	85	100	94	89	84	91	86	82	87	84	81	84	82	79	77					77			
3	95	86	79	74	93	85	78	73	82	76	72	79	75	71	77	73	70	68					68			
4	88	78	70	65	86	77	70	64	74	68	63	72	67	63	70	65	62	60					60			
5	82	71	63	57	80	70	62	57	68	61	56	66	60	56	64	59	55	53					53			
6	76	65	57	51	75	64	56	51	62	55	50	60	54	50	59	54	50	48					48			
7	71	59	51	46	70	58	51	46	57	50	45	56	50	45	54	49	45	43					43			
8	67	54	47	41	65	54	46	41	53	46	41	51	45	41	50	45	41	39					39			
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36					36			
10	59	47	39	35	58	46	39	35	45	39	34	44	38	34	44	38	34	33					33			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8043	8043	8043
5°	7987	7996	7951
10°	7897	7900	7937
15°	7752	7804	7943
20°	7622	7717	7854
25°	7458	7573	7751
30°	7250	7360	7612
35°	6939	7027	7457
40°	6477	6427	6727
45°	5379	5075	5332
50°	3790	3808	3474
55°	2545	3274	2290
60°	1642	2627	1523
65°	1137	2034	1095
70°	1143	1388	1135
75°	1408	1084	1395
80°	1719	1255	1822
85°	1680	1714	1849



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	279.9	4.8
10°-20°	792.1	13.7
20°-30°	1174.7	20.3
30°-40°	1343.8	23.2
40°-50°	1063.8	18.4
50°-60°	580.4	10.0
60°-70°	303.7	5.3
70°-80°	175.3	3.0
80°-90°	66.3	1.1
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°	2246.7	38.9
0°-40°	3590.5	62.1
0°-60°	5234.7	90.6
0°-90°	5780.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5780.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2989	2989	2989	2989	2989	
5°	2957	2936	2960	2950	2943	280
15°	2782	2797	2801	2824	2851	785
25°	2512	2515	2551	2583	2610	1155
35°	2112	2112	2139	2217	2270	1318
45°	1413	1406	1334	1399	1401	1075
55°	542	678	698	650	488	503
65°	179	360	320	342	172	193
75°	135	216	104	213	134	141
85°	54	71	56	72	60	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2988.9	2988.9	2988.9	2988.9	2988.9
2.5°	2977.8	2960.0	2955.6	2964.4	2970.0
5°	2956.7	2935.6	2960.0	2950.0	2943.4
7.5°	2932.3	2924.5	2920.1	2935.6	2932.3
10°	2890.1	2879.0	2891.2	2900.1	2904.5
12.5°	2839.1	2844.6	2846.8	2874.6	2887.9
15°	2782.5	2796.9	2801.4	2823.5	2851.3
17.5°	2724.8	2728.1	2754.8	2783.6	2796.9
20°	2661.6	2667.1	2694.9	2721.5	2742.6
22.5°	2587.2	2593.9	2628.3	2658.2	2676.0
25°	2511.8	2515.1	2550.6	2582.8	2610.5
27.5°	2420.8	2438.6	2459.6	2504.0	2534.0
30°	2333.2	2344.3	2368.7	2417.5	2449.7
32.5°	2230.0	2234.4	2265.5	2318.7	2362.0
35°	2112.4	2112.4	2139.0	2216.7	2269.9
37.5°	1995.9	1980.4	2001.4	2090.2	2127.9
40°	1843.9	1832.8	1829.5	1890.5	1914.9
42.5°	1657.5	1636.4	1598.7	1660.8	1680.8
45°	1413.4	1405.7	1333.6	1399.0	1401.2
47.5°	1158.3	1163.8	1082.8	1148.3	1099.5
50°	905.3	963.0	909.7	937.5	829.9
52.5°	704.5	812.1	792.1	781.1	634.6
55°	542.5	677.9	697.8	650.1	488.2
57.5°	413.8	578.0	590.2	556.9	371.7
60°	305.1	488.2	488.2	472.6	282.9
62.5°	227.4	419.4	397.2	401.6	216.3
65°	178.6	359.5	319.5	341.7	172.0
67.5°	149.8	299.6	241.9	295.1	149.8
70°	145.3	260.7	176.4	266.3	144.2
72.5°	144.2	239.6	132.0	241.9	145.3
75°	135.4	216.3	104.3	213.0	134.2
77.5°	124.3	179.7	86.5	179.7	125.4
80°	110.9	136.5	81.0	139.8	117.6
82.5°	85.4	97.6	72.1	98.7	91.0
85°	54.4	71.0	55.5	72.1	59.9
87.5°	24.4	37.7	24.4	38.8	26.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)