

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: P476024

Luminaire Tested: **22GR-LD5-90-A19/156-UNV-L850-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P476024
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22GR-LD5-90-A19/156-UNV-L850-CD1-U
Description: GR 2'X2' LED TROFFER w/ A19/156 LENS
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8776.9 lumens
Efficiency: N/A
Efficacy: 126.7 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

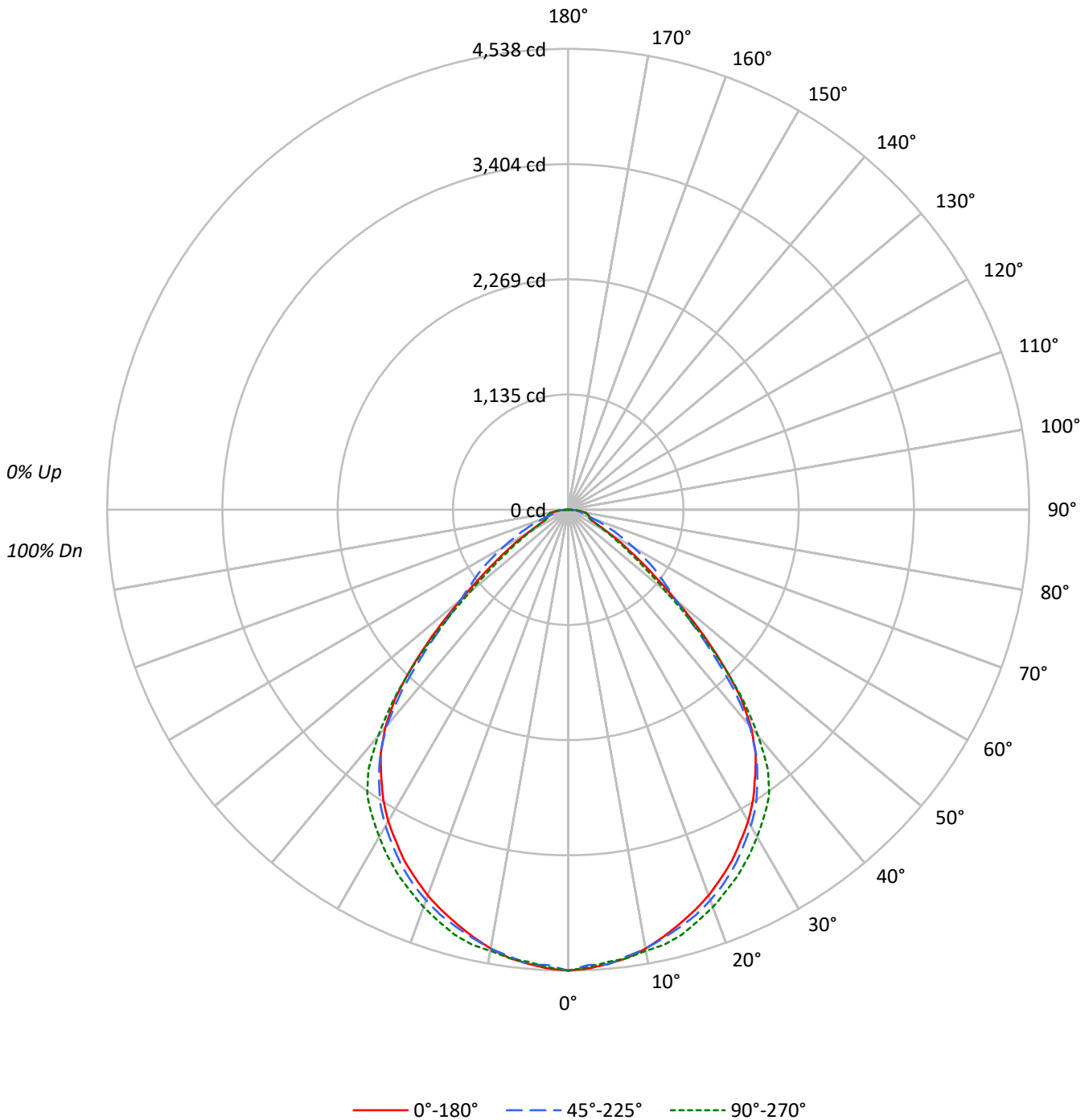
Input Watts (W): 69.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	12213	12213	12213
5°	12128	12141	12073
10°	11992	11996	12052
15°	11771	11851	12062
20°	11574	11718	11926
25°	11325	11500	11770
30°	11009	11176	11558
35°	10537	10670	11323
40°	9836	9759	10215
45°	8168	7706	8098
50°	5755	5783	5275
55°	3865	4972	3478
60°	2493	3990	2312
65°	1727	3089	1663
70°	1736	2108	1723
75°	2137	1647	2119
80°	2611	1906	2768
85°	2547	2600	2810



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	425.0	4.8
10°-20°	1202.8	13.7
20°-30°	1783.8	20.3
30°-40°	2040.5	23.2
40°-50°	1615.3	18.4
50°-60°	881.4	10.0
60°-70°	461.1	5.3
70°-80°	266.3	3.0
80°-90°	100.7	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°	3411.6	38.9
0°-40°	5452.1	62.1
0°-60°	7948.8	90.6
0°-90°	8776.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8776.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4538	4538	4538	4538	4538	
5°	4490	4458	4495	4480	4470	426
15°	4225	4247	4254	4288	4330	1192
25°	3814	3819	3873	3922	3964	1753
35°	3208	3208	3248	3366	3447	2001
45°	2146	2134	2025	2124	2128	1632
55°	824	1029	1060	987	741	764
65°	271	546	485	519	261	293
75°	206	328	158	324	204	213
85°	82	108	84	110	91	91
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4538.5	4538.5	4538.5	4538.5	4538.5
2.5°	4521.7	4494.7	4488.0	4501.5	4509.9
5°	4489.7	4457.7	4494.7	4479.6	4469.5
7.5°	4452.6	4440.8	4434.1	4457.7	4452.6
10°	4388.6	4371.8	4390.3	4403.8	4410.5
12.5°	4311.1	4319.5	4322.9	4365.0	4385.2
15°	4225.2	4247.1	4253.8	4287.5	4329.6
17.5°	4137.6	4142.6	4183.1	4226.9	4247.1
20°	4041.6	4050.0	4092.1	4132.5	4164.5
22.5°	3928.7	3938.8	3991.0	4036.5	4063.5
25°	3814.1	3819.2	3873.1	3921.9	3964.1
27.5°	3676.0	3702.9	3734.9	3802.3	3847.8
30°	3542.9	3559.7	3596.8	3670.9	3719.8
32.5°	3386.2	3393.0	3440.1	3521.0	3586.7
35°	3207.6	3207.6	3248.1	3366.0	3446.9
37.5°	3030.7	3007.2	3039.2	3173.9	3231.2
40°	2799.9	2783.1	2778.0	2870.7	2907.8
42.5°	2516.9	2484.9	2427.6	2522.0	2552.3
45°	2146.3	2134.5	2025.0	2124.4	2127.8
47.5°	1758.8	1767.2	1644.3	1743.6	1669.5
50°	1374.7	1462.3	1381.4	1423.6	1260.1
52.5°	1069.8	1233.2	1202.9	1186.0	963.6
55°	823.8	1029.3	1059.7	987.2	741.3
57.5°	628.4	877.7	896.3	845.7	564.4
60°	463.3	741.3	741.3	717.7	429.6
62.5°	345.4	636.8	603.1	609.9	328.5
65°	271.2	545.8	485.2	518.9	261.1
67.5°	227.4	454.9	367.3	448.1	227.4
70°	220.7	395.9	267.9	404.3	219.0
72.5°	219.0	363.9	200.5	367.3	220.7
75°	205.5	328.5	158.4	323.5	203.8
77.5°	188.7	272.9	131.4	272.9	190.4
80°	168.5	207.2	123.0	212.3	178.6
82.5°	129.7	148.3	109.5	149.9	138.1
85°	82.5	107.8	84.2	109.5	91.0
87.5°	37.1	57.3	37.1	59.0	40.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)