

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: 18002

Luminaire Tested: **MB-SB-2T8**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: 18002
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: MB-SB-2T8
Description: DIRECT/INDIRECT SUSPENDED LUMINAIRE - MINIGATOR WHITE INTERIOR WITH
SPECULAR REFLECTORS AND 19 CELL SEMI-SPECULAR LOUVER BLADE
Light Source: TWO PHILIPS 32 WATT T8 LAMPS

F32T8/TL841. LUMEN RATING = 3000 LMS.

Ballast/Driver: -

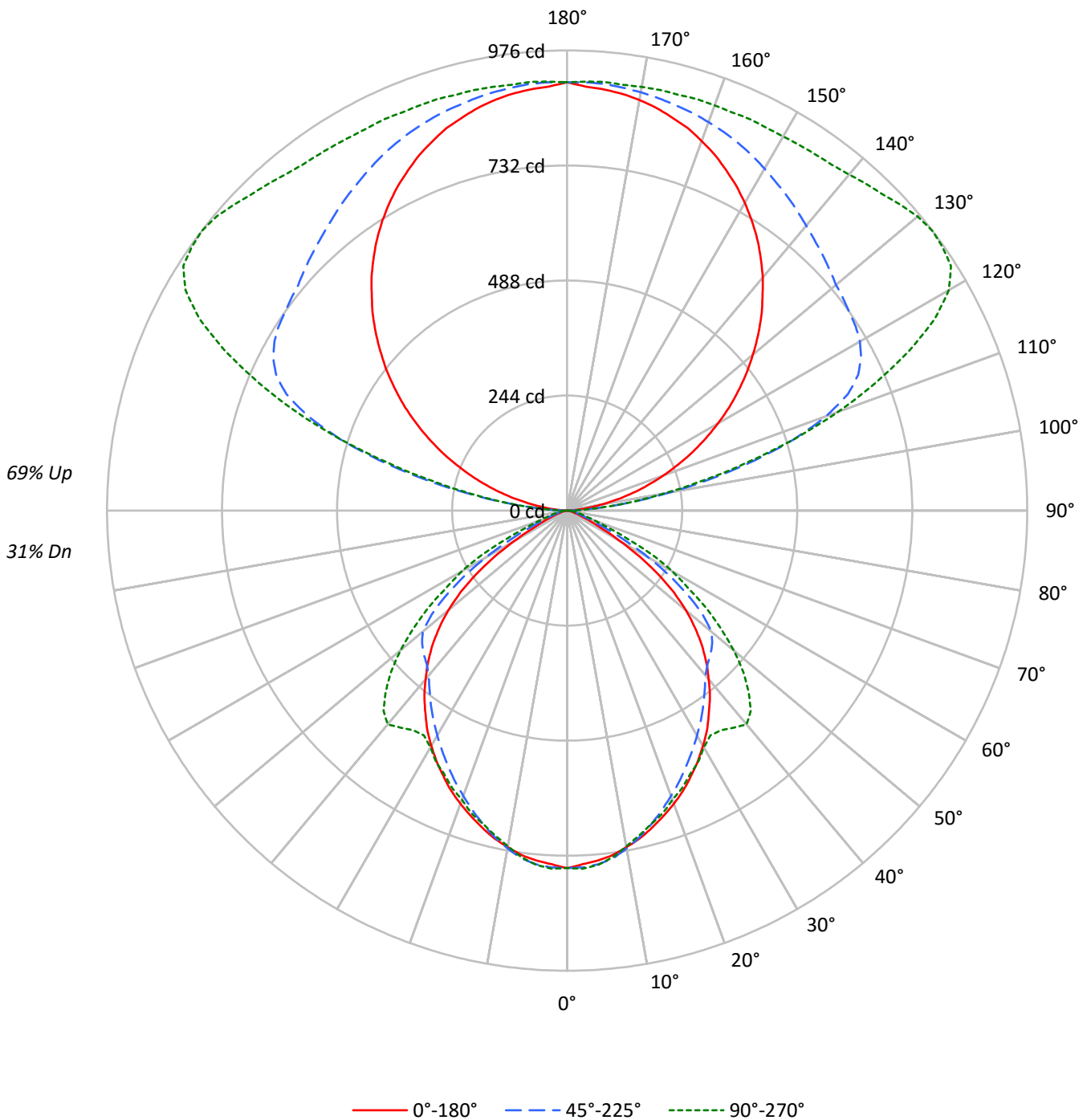
Summary

Lumens per Lamp: 3000 (2 lamps)
Luminaire Lumens: 5160.3 lumens
Efficiency: 86.0%
Efficacy: 90.5 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.15 / 1.26
Luminous Opening: Rectangular (W 0.22' x L: 3.59' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 57
Input Voltage (V): NR
Input Current (A_{in}): 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	88	88	88	88	79	79	79	79	63	63	63	48	48	48	34	34	34	27
1	81	78	75	72	73	70	67	65	56	54	52	43	41	41	30	30	29	24
2	74	68	63	59	67	62	58	54	49	46	44	38	36	34	27	26	25	21
3	68	60	54	50	61	54	50	46	44	40	37	34	31	30	24	23	22	18
4	62	53	47	42	56	48	43	39	39	35	32	30	28	25	22	20	19	16
5	57	48	41	36	51	43	38	33	35	31	28	27	24	22	20	18	17	14
6	52	43	36	31	47	39	33	29	31	27	24	25	22	19	18	16	15	12
7	48	38	32	27	44	35	29	25	28	24	21	22	19	17	17	15	13	11
8	45	35	28	24	40	32	26	22	26	22	19	20	17	15	15	13	12	10
9	42	32	26	21	38	29	24	20	24	20	17	19	16	14	14	12	11	9
10	39	29	23	19	35	26	21	18	22	18	15	17	14	12	13	11	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10333	10333	10333
5°	10194	10303	10317
10°	10032	10071	10007
15°	9823	9719	9712
20°	9597	9337	9466
25°	9343	8986	9274
30°	9066	8670	9121
35°	8723	8377	9465
40°	8308	8118	10530
45°	7785	8292	10497
50°	6973	8479	9781
55°	5608	7442	8537
60°	3516	5454	7032
65°	1835	3035	4557
70°	1036	1618	2494
75°	658	1137	1696
80°	400	887	1460
85°	266	797	1235



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ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	71.0	1.4	1.2
10°-20°	194.8	3.8	3.2
20°-30°	280.4	5.4	4.7
30°-40°	328.5	6.4	5.5
40°-50°	344.2	6.7	5.7
50°-60°	263.2	5.1	4.4
60°-70°	104.3	2.0	1.7
70°-80°	25.6	0.5	0.4
80°-90°	6.5	0.1	0.1
90°-100°	86.2	1.7	1.4
100°-110°	371.3	7.2	6.2
110°-120°	598.1	11.6	10.0
120°-130°	645.9	12.5	10.8
130°-140°	594.5	11.5	9.9
140°-150°	511.0	9.9	8.5
150°-160°	396.6	7.7	6.6
160°-170°	251.9	4.9	4.2
170°-180°	86.4	1.7	1.4
0°-30°	546.2	10.6	9.1
0°-40°	874.7	17.0	14.6
0°-60°	1482.1	28.7	24.7
0°-90°	1618.4	31.4	27.0
90°-120°	1055.6	20.5	17.6
90°-150°	2807.0	54.4	46.8
90°-180°	3542.0	68.6	59.0
0°-180°	5160.3	100.0	86.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	758	758	758	758	758	
5°	745	750	753	752	754	71
15°	696	697	689	688	688	196
25°	621	608	598	609	617	286
35°	524	506	504	534	569	328
45°	404	385	430	509	545	310
55°	236	250	313	331	359	208
65°	57	67	94	132	141	63
75°	12	16	22	29	32	14
85°	2	4	5	7	8	2
90°	0	0	0	0	0	1
95°	21	71	72	70	70	29
105°	144	339	413	401	397	152
115°	293	435	681	781	800	290
125°	443	527	731	916	973	396
135°	582	642	767	900	948	449
145°	703	746	814	892	921	439
155°	797	820	860	900	916	367
165°	863	876	890	907	913	244
175°	897	905	908	912	912	85
180°	908	908	908	908	908	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	758.2	758.2	758.2	758.2	758.2
2.5°	750.8	756.4	757.5	761.5	760.4
5°	745.1	750.1	753.1	752.5	754.1
7.5°	737.2	742.8	744.0	742.3	741.7
10°	724.9	730.9	727.7	724.8	723.1
12.5°	712.5	716.3	709.7	709.1	705.7
15°	696.2	697.4	688.8	687.7	688.3
17.5°	679.3	678.2	666.8	668.7	673.6
20°	661.7	655.6	643.8	648.8	652.7
22.5°	643.1	633.1	621.8	629.2	637.0
25°	621.3	608.4	597.6	608.9	616.7
27.5°	599.8	582.4	574.4	587.5	601.6
30°	576.1	560.0	550.9	567.2	579.6
32.5°	552.0	532.3	527.7	546.3	565.5
35°	524.3	506.3	503.5	534.0	568.9
37.5°	497.4	475.4	479.3	530.0	580.1
40°	467.0	446.0	456.3	535.1	591.9
42.5°	437.1	415.6	441.0	534.0	576.3
45°	403.9	385.3	430.2	509.1	544.6
47.5°	367.8	354.9	417.3	473.1	506.9
50°	328.9	321.1	399.9	429.3	461.3
52.5°	285.1	288.9	362.3	383.0	411.1
55°	236.0	249.6	313.2	330.6	359.3
57.5°	183.0	211.3	258.0	279.4	302.4
60°	129.0	156.1	200.1	221.4	258.0
62.5°	85.7	107.5	142.6	182.5	204.5
65°	56.9	66.6	94.1	131.8	141.3
67.5°	36.6	42.9	57.1	89.5	92.9
70°	26.0	30.5	40.6	59.7	62.6
72.5°	17.0	21.4	28.3	40.0	45.1
75°	12.5	15.9	21.6	28.8	32.2
77.5°	9.0	13.1	16.3	21.4	24.9
80°	5.1	9.1	11.3	14.8	18.6
82.5°	3.0	6.3	9.0	11.4	11.9
85°	1.7	4.5	5.1	7.4	7.9
87.5°	1.1	2.3	3.4	5.7	6.3
90°	0.5	0.5	0.5	0.5	0.5
92.5°	6.2	18.6	23.1	22.0	26.0
95°	20.9	71.1	72.1	70.5	69.8
97.5°	45.7	143.2	137.5	136.4	134.7
100°	74.9	237.1	220.2	242.3	208.4
102.5°	107.5	268.2	314.3	281.1	296.8
105°	144.2	339.0	412.8	401.0	397.0
107.5°	179.3	371.2	505.7	505.9	504.6
110°	216.8	392.1	584.1	607.8	611.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	254.0	414.1	644.4	700.6	707.9
115°	293.1	434.8	681.0	781.2	799.7
117.5°	331.2	457.4	702.9	843.6	878.1
120°	369.0	483.3	716.9	884.2	934.9
122.5°	407.1	514.3	726.0	911.3	965.4
125°	443.3	527.2	731.1	915.9	972.6
127.5°	480.0	560.9	738.3	919.3	976.0
130°	514.2	587.5	744.6	913.0	970.3
132.5°	548.6	615.0	755.4	905.7	959.7
135°	582.4	641.5	766.6	900.0	947.9
137.5°	613.3	665.7	777.2	895.0	939.4
140°	645.4	692.8	789.0	892.2	930.3
142.5°	674.8	717.4	801.5	890.4	923.7
145°	702.9	746.3	813.8	892.1	921.0
147.5°	729.2	757.5	825.0	893.9	918.5
150°	753.5	783.4	837.5	894.4	916.3
152.5°	776.7	800.9	849.3	896.0	915.1
155°	797.0	819.5	859.5	900.0	916.3
157.5°	817.2	835.3	869.0	902.4	914.0
160°	834.1	850.4	876.8	904.0	914.7
162.5°	850.5	863.9	884.2	905.7	915.1
165°	862.8	876.4	889.9	907.4	913.0
167.5°	874.7	889.4	896.0	907.9	913.6
170°	884.4	893.3	900.7	908.5	912.3
172.5°	891.6	900.0	904.7	910.2	910.7
175°	896.7	905.1	908.3	911.9	912.5
177.5°	900.0	907.4	909.1	912.5	910.7
180°	908.3	908.3	908.3	908.3	908.3

(END OF REPORT)