

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: NEO-RAY

Report Number: P243191

Luminaire Tested: **S122DR-H865D835-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243191
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-53)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122DR-H865D835-X4F0-XX-UDD-D-W
Description: DEFINE 2 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3317.5 lumens
Efficiency: N/A
Efficacy: 105.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.15' x L: 3.88' x H: 0.08')
CIE Type: Semi-Direct

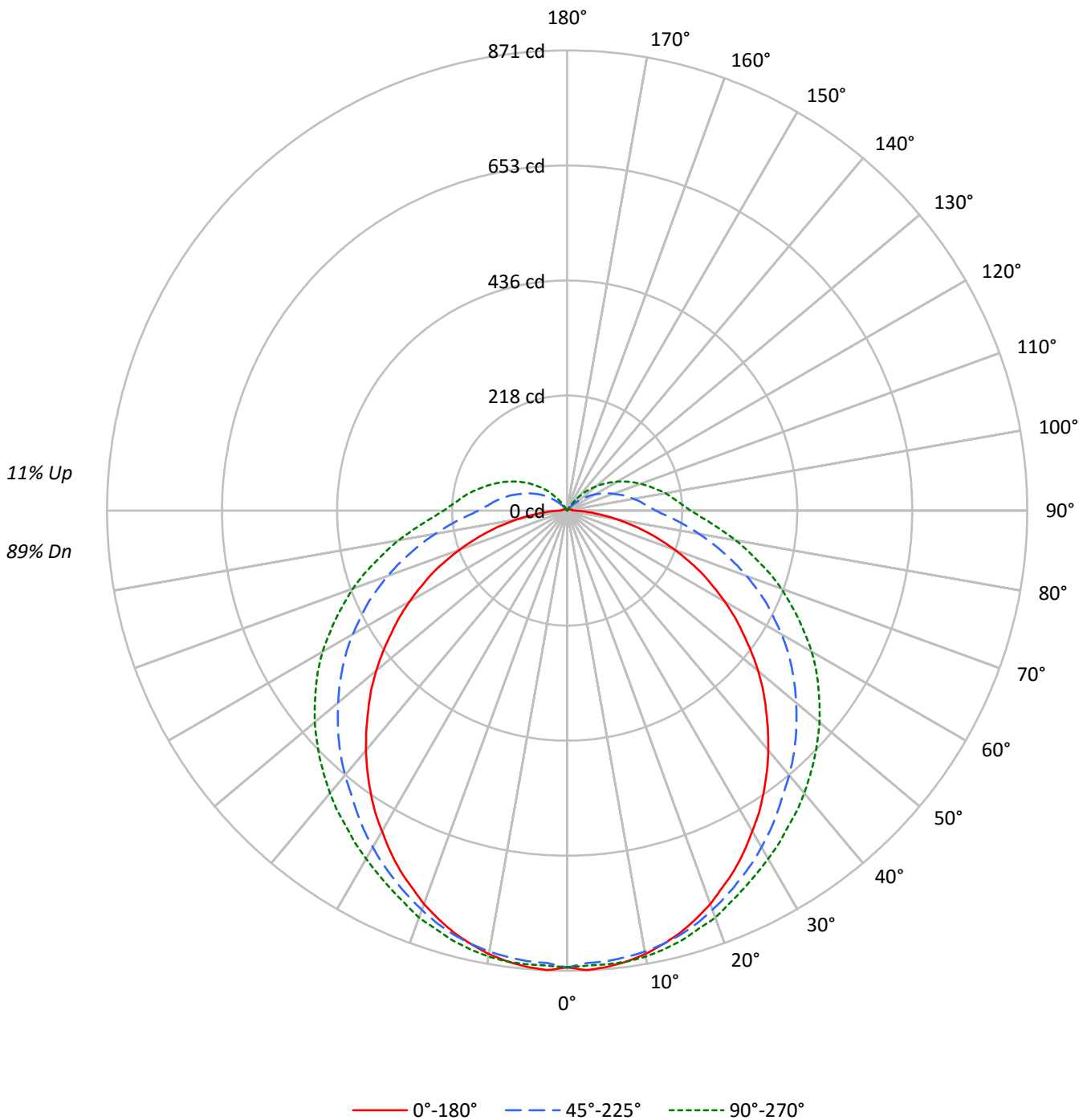
Input Watts (W): 31.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20			20			20			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	116	116	116	116	112	112	112	112	105	105	105	98	98	98	92	92	92	89
1	104	98	93	88	100	95	90	86	88	84	81	82	79	76	77	74	72	69
2	93	84	77	70	90	81	74	68	76	70	65	71	66	62	66	62	59	56
3	85	73	64	57	81	71	63	56	66	59	54	62	56	51	58	53	49	46
4	77	64	55	48	74	62	54	47	58	51	45	55	48	43	51	46	41	39
5	71	57	48	41	68	55	47	40	52	44	39	49	42	37	46	40	36	33
6	65	51	42	35	63	50	41	35	47	39	34	44	37	32	41	36	31	29
7	60	46	37	31	58	45	37	30	42	35	29	40	33	28	38	32	28	25
8	56	42	33	27	54	41	33	27	39	31	26	37	30	25	35	29	25	22
9	52	39	30	25	50	38	30	24	36	28	24	34	27	23	32	26	22	20
10	49	36	28	22	47	35	27	22	33	26	21	31	25	21	30	24	20	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16467	16467	16467
5°	16546	15790	15699
10°	16426	15267	15064
15°	16219	14729	14394
20°	15935	14145	13760
25°	15610	13568	13108
30°	15225	13028	12586
35°	14867	12490	12119
40°	14469	12026	11738
45°	14034	11610	11353
50°	13637	11182	10995
55°	13113	10780	10613
60°	12649	10337	10236
65°	12141	9887	9778
70°	11395	9348	9342
75°	10580	8775	8827
80°	9415	8213	8378
85°	8245	7769	7931



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.0	2.5
10°-20°	235.4	7.1
20°-30°	356.5	10.7
30°-40°	434.8	13.1
40°-50°	467.9	14.1
50°-60°	454.9	13.7
60°-70°	397.7	12.0
70°-80°	306.2	9.2
80°-90°	205.7	6.2
90°-100°	142.4	4.3
100°-110°	104.7	3.2
110°-120°	69.7	2.1
120°-130°	39.4	1.2
130°-140°	17.0	0.5
140°-150°	3.1	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	673.8	20.3
0°-40°	1108.6	33.4
0°-60°	2031.5	61.2
0°-90°	2941.1	88.7
90°-120°	316.8	9.5
90°-150°	376.3	11.3
90°-180°	376.0	11.3
0°-180°	3317.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	864	864	864	864	864	
5°	867	863	856	863	862	82
15°	827	831	831	842	842	233
25°	750	762	772	789	790	345
35°	649	671	695	721	730	406
45°	532	565	612	649	662	411
55°	407	455	519	566	580	365
65°	282	342	417	467	483	278
75°	155	226	306	360	376	164
85°	47	124	206	258	273	48
90°	13	87	167	218	234	9
95°	10	70	146	194	208	8
105°	7	43	111	154	167	8
115°	5	20	77	116	129	5
125°	4	2	46	78	90	3
135°	1	1	16	42	53	1
145°	1	0	0	10	14	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	864.5	864.5	864.5	864.5	864.5
2.5°	870.6	867.0	857.3	864.5	862.1
5°	867.0	863.3	856.1	863.3	862.1
7.5°	860.9	858.5	852.5	862.1	860.9
10°	852.5	851.3	847.7	857.3	857.3
12.5°	840.5	841.7	840.5	851.3	850.1
15°	827.2	830.8	830.8	841.7	841.7
17.5°	810.4	816.4	818.8	830.8	829.6
20°	792.3	799.5	804.3	817.6	820.0
22.5°	770.6	781.5	788.7	803.1	804.3
25°	750.2	762.2	771.8	788.7	789.9
27.5°	726.1	740.5	755.0	771.8	775.4
30°	700.8	718.8	735.7	756.2	761.0
32.5°	676.7	694.8	716.4	738.1	746.5
35°	649.0	670.7	694.8	721.3	729.7
37.5°	621.3	644.2	673.1	704.4	715.2
40°	592.4	618.9	653.8	687.5	698.4
42.5°	562.3	591.2	633.4	668.3	680.3
45°	532.2	564.7	611.7	649.0	662.3
47.5°	503.3	538.2	588.8	630.9	643.0
50°	472.0	510.5	565.9	609.3	623.7
52.5°	439.5	482.8	543.0	587.6	602.1
55°	407.0	455.2	519.0	565.9	580.4
57.5°	376.9	427.5	494.9	541.8	558.7
60°	344.4	398.6	468.4	517.8	534.6
62.5°	311.9	370.9	441.9	492.5	508.1
65°	281.8	342.0	416.6	467.2	482.8
67.5°	248.0	311.9	388.9	441.9	456.4
70°	216.7	284.2	361.2	414.2	431.1
72.5°	185.4	254.1	333.5	386.5	404.6
75°	155.3	226.4	305.8	360.0	375.7
77.5°	124.0	198.7	279.4	333.5	349.2
80°	96.3	171.0	252.9	307.0	323.9
82.5°	68.6	145.7	228.8	281.8	297.4
85°	47.0	124.0	205.9	257.7	273.3
87.5°	27.7	103.6	184.2	236.0	251.7
90°	13.2	86.7	167.4	217.9	233.6
92.5°	10.8	78.3	155.3	204.7	220.4
95°	9.6	69.8	145.7	193.9	208.3
97.5°	9.6	63.8	137.3	184.2	198.7
100°	8.4	56.6	127.6	173.4	189.0
102.5°	8.4	49.4	119.2	163.8	178.2
105°	7.2	43.3	110.8	154.1	167.4
107.5°	6.0	37.3	101.1	144.5	157.7
110°	6.0	31.3	92.7	134.9	148.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	4.8	26.5	85.5	125.2	138.5
115°	4.8	20.5	77.1	115.6	128.8
117.5°	4.8	14.4	68.6	106.0	119.2
120°	3.6	9.6	61.4	97.5	109.6
122.5°	3.6	6.0	53.0	87.9	99.9
125°	3.6	2.4	45.8	78.3	90.3
127.5°	2.4	2.4	37.3	69.8	80.7
130°	2.4	1.2	30.1	60.2	71.0
132.5°	2.4	1.2	22.9	51.8	61.4
135°	1.2	1.2	15.7	42.1	53.0
137.5°	1.2	1.2	8.4	33.7	42.1
140°	1.2	0.0	3.6	25.3	32.5
142.5°	1.2	0.0	0.0	16.9	24.1
145°	1.2	0.0	0.0	9.6	14.4
147.5°	0.0	0.0	0.0	2.4	7.2
150°	0.0	0.0	0.0	0.0	1.2
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)