

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: P243187

Luminaire Tested: **S122DR-H865D830-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243187
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-H865D830-X4F0-XX-UDD-D-W
Description: DEFINE 2 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3126.9 lumens
Efficiency: N/A
Efficacy: 99.3 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

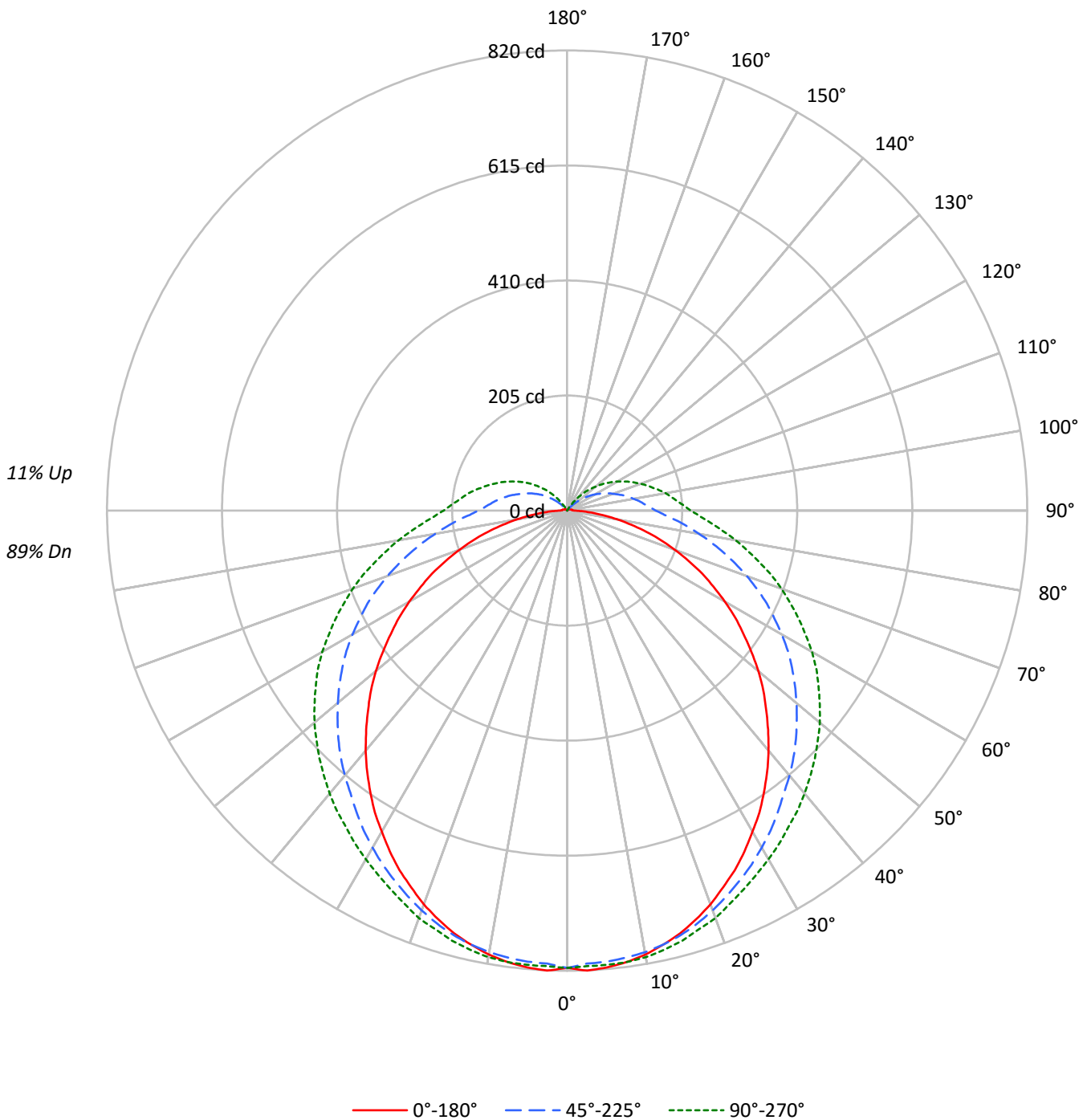
Input Watts (W): 31.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
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°	15522	15522	15522
5°	15594	14882	14798
10°	15482	14390	14199
15°	15287	13883	13566
20°	15020	13332	12969
25°	14713	12789	12355
30°	14349	12279	11863
35°	14013	11771	11423
40°	13639	11336	11064
45°	13227	10942	10700
50°	12854	10540	10364
55°	12359	10159	10003
60°	11922	9744	9648
65°	11443	9320	9217
70°	10743	8812	8805
75°	9974	8273	8319
80°	8877	7739	7897
85°	7771	7324	7475



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.3	2.5
10°-20°	221.8	7.1
20°-30°	336.0	10.7
30°-40°	409.8	13.1
40°-50°	441.0	14.1
50°-60°	428.8	13.7
60°-70°	374.9	12.0
70°-80°	288.6	9.2
80°-90°	193.9	6.2
90°-100°	134.2	4.3
100°-110°	98.7	3.2
110°-120°	65.7	2.1
120°-130°	37.2	1.2
130°-140°	16.0	0.5
140°-150°	2.9	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	635.1	20.3
0°-40°	1044.9	33.4
0°-60°	1914.8	61.2
0°-90°	2772.1	88.7
90°-120°	298.6	9.5
90°-150°	354.7	11.3
90°-180°	355.0	11.4
0°-180°	3126.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	815	815	815	815	815	
5°	817	814	807	814	813	78
15°	780	783	783	793	793	220
25°	707	718	728	743	744	325
35°	612	632	655	680	688	383
45°	502	532	576	612	624	388
55°	384	429	489	533	547	344
65°	266	322	393	440	455	262
75°	146	213	288	339	354	154
85°	44	117	194	243	258	46
90°	12	82	158	205	220	8
95°	9	66	137	183	196	7
105°	7	41	104	145	158	7
115°	4	19	73	109	121	4
125°	3	2	43	74	85	3
135°	1	1	15	40	50	1
145°	1	0	0	9	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°	814.9	814.9	814.9	814.9	814.9
2.5°	820.5	817.1	808.1	814.9	812.6
5°	817.1	813.7	806.9	813.7	812.6
7.5°	811.5	809.2	803.5	812.6	811.5
10°	803.5	802.4	799.0	808.1	808.1
12.5°	792.2	793.3	792.2	802.4	801.3
15°	779.7	783.1	783.1	793.3	793.3
17.5°	763.8	769.5	771.7	783.1	782.0
20°	746.8	753.6	758.1	770.6	772.9
22.5°	726.3	736.6	743.4	757.0	758.1
25°	707.1	718.4	727.5	743.4	744.5
27.5°	684.4	698.0	711.6	727.5	730.9
30°	660.5	677.5	693.4	712.7	717.3
32.5°	637.8	654.8	675.3	695.7	703.6
35°	611.7	632.1	654.8	679.8	687.8
37.5°	585.6	607.2	634.4	663.9	674.1
40°	558.4	583.3	616.3	648.0	658.3
42.5°	530.0	557.2	597.0	629.9	641.2
45°	501.6	532.3	576.5	611.7	624.2
47.5°	474.4	507.3	555.0	594.7	606.0
50°	444.9	481.2	533.4	574.3	587.9
52.5°	414.2	455.1	511.8	553.8	567.5
55°	383.6	429.0	489.1	533.4	547.0
57.5°	355.2	402.9	466.5	510.7	526.6
60°	324.6	375.7	441.5	488.0	503.9
62.5°	293.9	349.6	416.5	464.2	478.9
65°	265.6	322.3	392.7	440.3	455.1
67.5°	233.8	293.9	366.6	416.5	430.1
70°	204.3	267.8	340.5	390.4	406.3
72.5°	174.8	239.5	314.4	364.3	381.3
75°	146.4	213.4	288.3	339.3	354.1
77.5°	116.9	187.3	263.3	314.4	329.1
80°	90.8	161.2	238.3	289.4	305.3
82.5°	64.7	137.3	215.6	265.6	280.3
85°	44.3	116.9	194.1	242.9	257.6
87.5°	26.1	97.6	173.6	222.4	237.2
90°	12.5	81.7	157.8	205.4	220.2
92.5°	10.2	73.8	146.4	192.9	207.7
95°	9.1	65.8	137.3	182.7	196.3
97.5°	9.1	60.2	129.4	173.6	187.3
100°	7.9	53.3	120.3	163.4	178.2
102.5°	7.9	46.5	112.4	154.3	168.0
105°	6.8	40.9	104.4	145.3	157.8
107.5°	5.7	35.2	95.3	136.2	148.7
110°	5.7	29.5	87.4	127.1	139.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	4.5	25.0	80.6	118.0	130.5
115°	4.5	19.3	72.6	109.0	121.4
117.5°	4.5	13.6	64.7	99.9	112.4
120°	3.4	9.1	57.9	91.9	103.3
122.5°	3.4	5.7	49.9	82.8	94.2
125°	3.4	2.3	43.1	73.8	85.1
127.5°	2.3	2.3	35.2	65.8	76.0
130°	2.3	1.1	28.4	56.7	67.0
132.5°	2.3	1.1	21.6	48.8	57.9
135°	1.1	1.1	14.8	39.7	49.9
137.5°	1.1	1.1	7.9	31.8	39.7
140°	1.1	0.0	3.4	23.8	30.6
142.5°	1.1	0.0	0.0	15.9	22.7
145°	1.1	0.0	0.0	9.1	13.6
147.5°	0.0	0.0	0.0	2.3	6.8
150°	0.0	0.0	0.0	0.0	1.1
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)