

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: P243201

Luminaire Tested: **S122DR-H865D930-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243201
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-H865D930-X4F0-XX-UDD-D-W
Description: DEFINE 2 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2704.8 lumens
Efficiency: N/A
Efficacy: 85.9 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

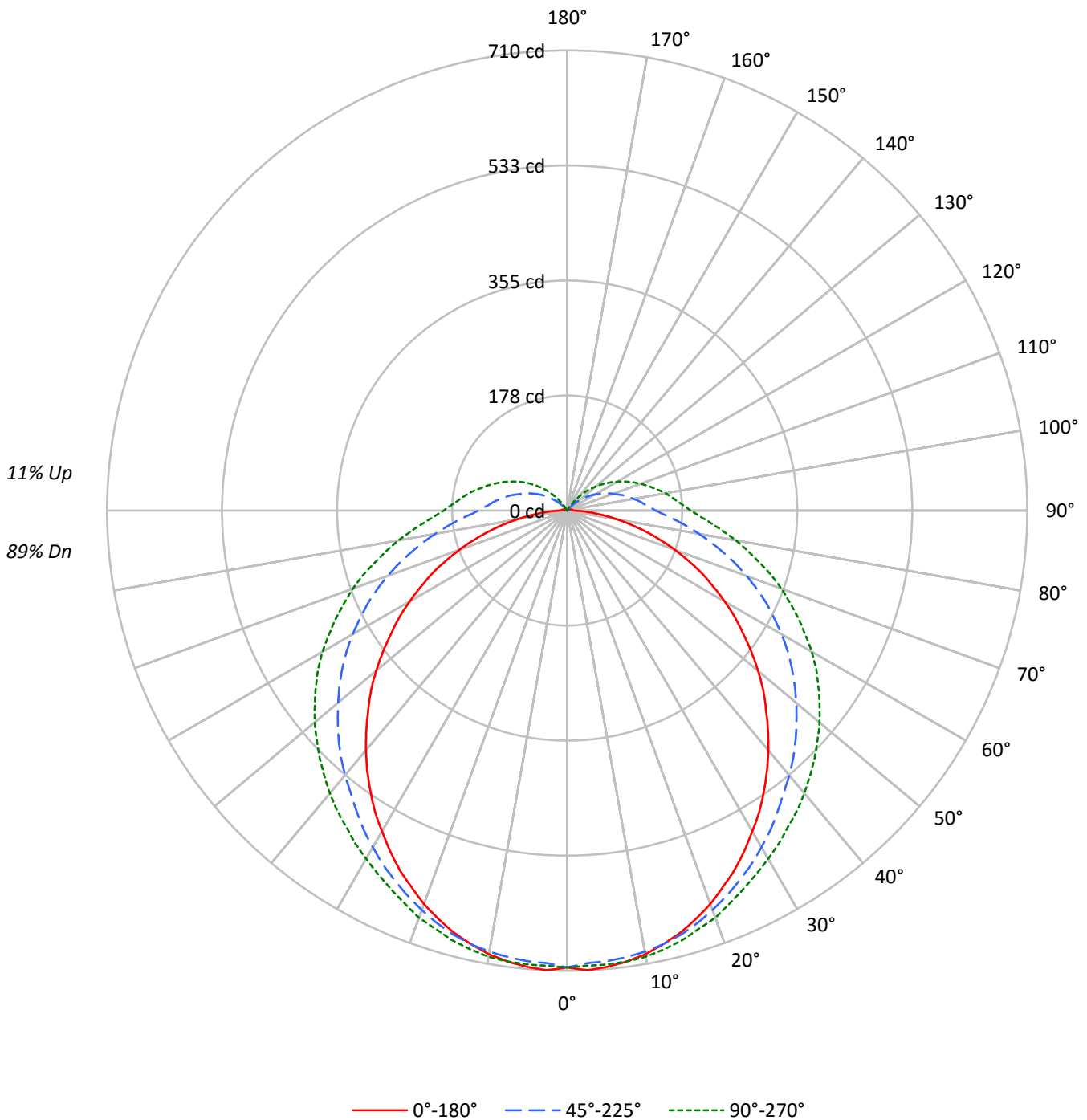
Input Watts (W): 31.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	13427	13427	13427
5°	13489	12874	12800
10°	13392	12447	12282
15°	13223	12009	11735
20°	12993	11533	11218
25°	12726	11063	10687
30°	12413	10621	10260
35°	12121	10182	9880
40°	11797	9806	9570
45°	11442	9465	9255
50°	11118	9117	8964
55°	10690	8788	8653
60°	10313	8428	8346
65°	9896	8062	7974
70°	9292	7622	7615
75°	8625	7157	7196
80°	7675	6696	6831
85°	6719	6335	6465



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.8	2.5
10°-20°	191.9	7.1
20°-30°	290.6	10.7
30°-40°	354.5	13.1
40°-50°	381.5	14.1
50°-60°	370.9	13.7
60°-70°	324.3	12.0
70°-80°	249.6	9.2
80°-90°	167.7	6.2
90°-100°	116.1	4.3
100°-110°	85.4	3.2
110°-120°	56.8	2.1
120°-130°	32.2	1.2
130°-140°	13.8	0.5
140°-150°	2.6	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	549.4	20.3
0°-40°	903.9	33.4
0°-60°	1656.3	61.2
0°-90°	2397.9	88.7
90°-120°	258.3	9.5
90°-150°	306.9	11.3
90°-180°	307.0	11.4
0°-180°	2704.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	705	705	705	705	705	
5°	707	704	698	704	703	67
15°	674	677	677	686	686	190
25°	612	621	629	643	644	281
35°	529	547	566	588	595	331
45°	434	460	499	529	540	335
55°	332	371	423	461	473	297
65°	230	279	340	381	394	226
75°	127	185	249	294	306	134
85°	38	101	168	210	223	39
90°	11	71	136	178	190	7
95°	8	57	119	158	170	6
105°	6	35	90	126	136	6
115°	4	17	63	94	105	4
125°	3	2	37	64	74	2
135°	1	1	13	34	43	1
145°	1	0	0	8	12	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°	704.9	704.9	704.9	704.9	704.9
2.5°	709.8	706.8	699.0	704.9	702.9
5°	706.8	703.9	698.0	703.9	702.9
7.5°	701.9	700.0	695.0	702.9	701.9
10°	695.0	694.1	691.1	699.0	699.0
12.5°	685.2	686.2	685.2	694.1	693.1
15°	674.4	677.4	677.4	686.2	686.2
17.5°	660.7	665.6	667.6	677.4	676.4
20°	646.0	651.9	655.8	666.6	668.5
22.5°	628.3	637.1	643.0	654.8	655.8
25°	611.6	621.4	629.3	643.0	644.0
27.5°	592.0	603.7	615.5	629.3	632.2
30°	571.4	586.1	599.8	616.5	620.4
32.5°	551.7	566.4	584.1	601.8	608.7
35°	529.1	546.8	566.4	588.0	594.9
37.5°	506.6	525.2	548.8	574.3	583.1
40°	483.0	504.6	533.1	560.6	569.4
42.5°	458.5	482.0	516.4	544.8	554.7
45°	433.9	460.4	498.7	529.1	539.9
47.5°	410.4	438.8	480.1	514.4	524.2
50°	384.8	416.2	461.4	496.7	508.5
52.5°	358.3	393.7	442.7	479.1	490.9
55°	331.8	371.1	423.1	461.4	473.2
57.5°	307.3	348.5	403.5	441.8	455.5
60°	280.8	324.9	381.9	422.1	435.9
62.5°	254.3	302.4	360.3	401.5	414.3
65°	229.7	278.8	339.7	380.9	393.7
67.5°	202.2	254.3	317.1	360.3	372.1
70°	176.7	231.7	294.5	337.7	351.4
72.5°	151.2	207.1	271.9	315.1	329.9
75°	126.6	184.6	249.4	293.5	306.3
77.5°	101.1	162.0	227.8	271.9	284.7
80°	78.5	139.4	206.2	250.3	264.1
82.5°	56.0	118.8	186.5	229.7	242.5
85°	38.3	101.1	167.9	210.1	222.8
87.5°	22.6	84.4	150.2	192.4	205.2
90°	10.8	70.7	136.5	177.7	190.5
92.5°	8.8	63.8	126.6	166.9	179.7
95°	7.9	56.9	118.8	158.1	169.8
97.5°	7.9	52.0	111.9	150.2	162.0
100°	6.9	46.1	104.1	141.4	154.1
102.5°	6.9	40.2	97.2	133.5	145.3
105°	5.9	35.3	90.3	125.7	136.5
107.5°	4.9	30.4	82.5	117.8	128.6
110°	4.9	25.5	75.6	110.0	120.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.9	21.6	69.7	102.1	112.9
115°	3.9	16.7	62.8	94.2	105.0
117.5°	3.9	11.8	56.0	86.4	97.2
120°	2.9	7.9	50.1	79.5	89.3
122.5°	2.9	4.9	43.2	71.7	81.5
125°	2.9	2.0	37.3	63.8	73.6
127.5°	2.0	2.0	30.4	56.9	65.8
130°	2.0	1.0	24.5	49.1	57.9
132.5°	2.0	1.0	18.7	42.2	50.1
135°	1.0	1.0	12.8	34.4	43.2
137.5°	1.0	1.0	6.9	27.5	34.4
140°	1.0	0.0	2.9	20.6	26.5
142.5°	1.0	0.0	0.0	13.7	19.6
145°	1.0	0.0	0.0	7.9	11.8
147.5°	0.0	0.0	0.0	2.0	5.9
150°	0.0	0.0	0.0	0.0	1.0
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)