

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: P243182

Luminaire Tested: **S122DR-H865D927-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243182
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-H865D927-X4F0-XX-UDD-D-W
Description: DEFINE 2 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2628.1 lumens
Efficiency: N/A
Efficacy: 83.4 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

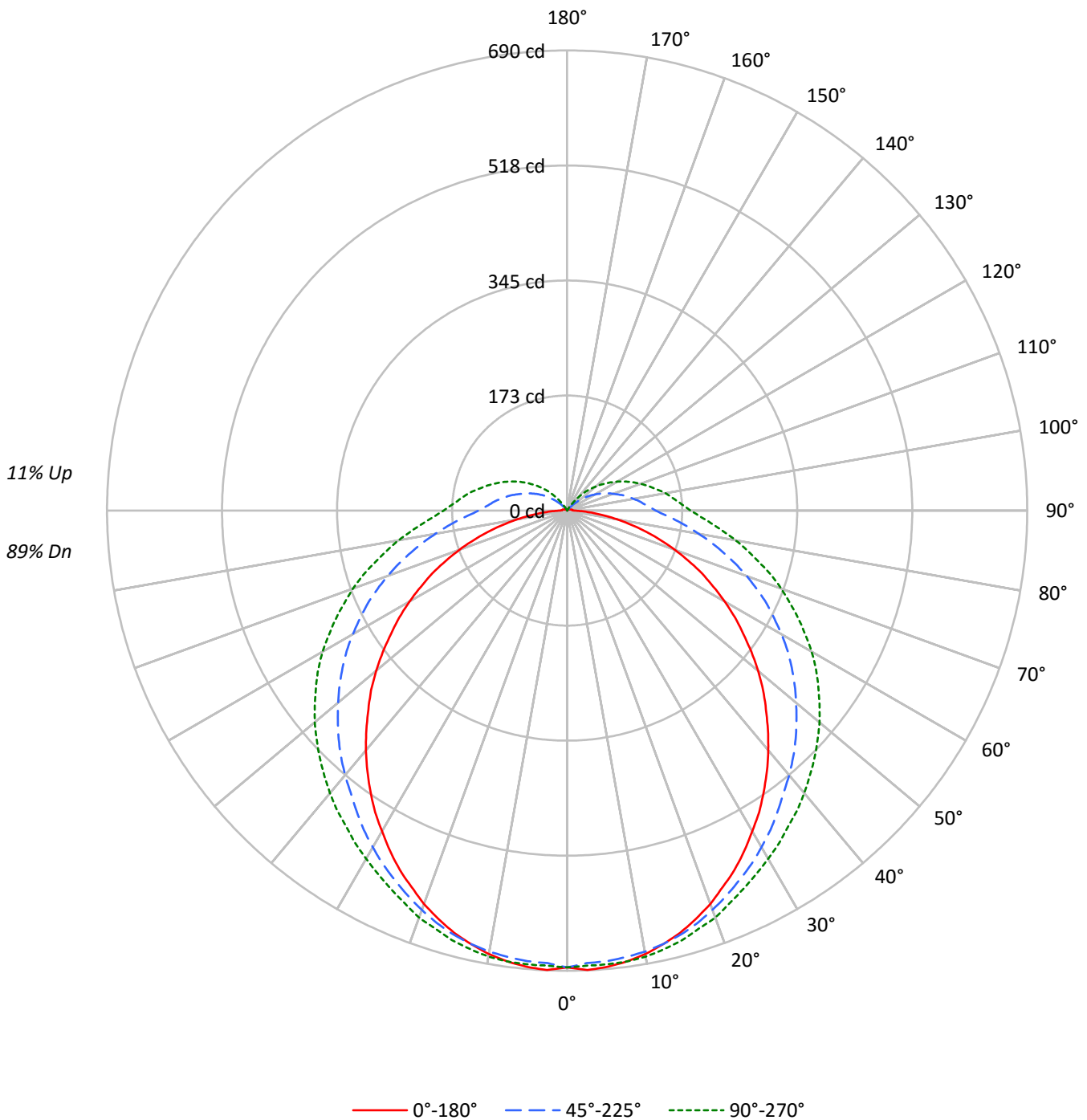
Input Watts (W): 31.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P243182

CATALOG NUMBER: S122DR-H865D927-X4F0-XX-UDD-D-W

Luminous Intensity Polar Plot





TEST NUMBER: P243182

CATALOG NUMBER: S122DR-H865D927-X4F0-XX-UDD-D-W

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°	13046	13046	13046
5°	13107	12509	12438
10°	13012	12094	11934
15°	12848	11669	11403
20°	12623	11206	10900
25°	12366	10748	10384
30°	12062	10320	9969
35°	11777	9894	9599
40°	11462	9526	9297
45°	11118	9198	8993
50°	10803	8858	8710
55°	10387	8539	8408
60°	10019	8190	8108
65°	9616	7832	7747
70°	9029	7407	7400
75°	8380	6953	6992
80°	7460	6505	6637
85°	6526	6154	6283



TEST NUMBER: P243182

CATALOG NUMBER: S122DR-H865D927-X4F0-XX-UDD-D-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.0	2.5
10°-20°	186.4	7.1
20°-30°	282.4	10.7
30°-40°	344.4	13.1
40°-50°	370.7	14.1
50°-60°	360.4	13.7
60°-70°	315.1	12.0
70°-80°	242.5	9.2
80°-90°	163.0	6.2
90°-100°	112.8	4.3
100°-110°	83.0	3.2
110°-120°	55.2	2.1
120°-130°	31.3	1.2
130°-140°	13.4	0.5
140°-150°	2.5	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	533.8	20.3
0°-40°	878.2	33.4
0°-60°	1609.3	61.2
0°-90°	2329.9	88.7
90°-120°	251.0	9.5
90°-150°	298.1	11.3
90°-180°	298.0	11.3
0°-180°	2628.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	685	685	685	685	685	
5°	687	684	678	684	683	65
15°	655	658	658	667	667	185
25°	594	604	611	625	626	273
35°	514	531	550	571	578	322
45°	422	447	485	514	525	326
55°	322	361	411	448	460	289
65°	223	271	330	370	382	220
75°	123	179	242	285	298	130
85°	37	98	163	204	216	38
90°	10	69	133	173	185	7
95°	8	55	115	154	165	6
105°	6	34	88	122	133	6
115°	4	16	61	92	102	4
125°	3	2	36	62	72	2
135°	1	1	12	33	42	1
145°	1	0	0	8	11	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



TEST NUMBER: P243182

CATALOG NUMBER: S122DR-H865D927-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	684.9	684.9	684.9	684.9	684.9
2.5°	689.6	686.8	679.2	684.9	683.0
5°	686.8	683.9	678.2	683.9	683.0
7.5°	682.0	680.1	675.3	683.0	682.0
10°	675.3	674.4	671.5	679.2	679.2
12.5°	665.8	666.8	665.8	674.4	673.4
15°	655.3	658.2	658.2	666.8	666.8
17.5°	642.0	646.7	648.6	658.2	657.2
20°	627.6	633.4	637.2	647.7	649.6
22.5°	610.5	619.1	624.8	636.2	637.2
25°	594.3	603.8	611.4	624.8	625.7
27.5°	575.2	586.6	598.1	611.4	614.3
30°	555.2	569.5	582.8	599.0	602.8
32.5°	536.1	550.4	567.6	584.7	591.4
35°	514.1	531.3	550.4	571.4	578.0
37.5°	492.2	510.3	533.2	558.0	566.6
40°	469.3	490.3	517.9	544.7	553.2
42.5°	445.5	468.3	501.7	529.4	538.9
45°	421.6	447.4	484.6	514.1	524.6
47.5°	398.7	426.4	466.4	499.8	509.4
50°	373.9	404.4	448.3	482.7	494.1
52.5°	348.2	382.5	430.2	465.5	476.9
55°	322.4	360.6	411.1	448.3	459.8
57.5°	298.6	338.6	392.0	429.2	442.6
60°	272.8	315.7	371.1	410.2	423.5
62.5°	247.1	293.8	350.1	390.1	402.5
65°	223.2	270.9	330.0	370.1	382.5
67.5°	196.5	247.1	308.1	350.1	361.5
70°	171.7	225.1	286.2	328.1	341.5
72.5°	146.9	201.3	264.2	306.2	320.5
75°	123.0	179.3	242.3	285.2	297.6
77.5°	98.2	157.4	221.3	264.2	276.6
80°	76.3	135.4	200.3	243.2	256.6
82.5°	54.4	115.4	181.2	223.2	235.6
85°	37.2	98.2	163.1	204.1	216.5
87.5°	21.9	82.0	145.9	187.0	199.4
90°	10.5	68.7	132.6	172.6	185.1
92.5°	8.6	62.0	123.0	162.2	174.6
95°	7.6	55.3	115.4	153.6	165.0
97.5°	7.6	50.6	108.7	145.9	157.4
100°	6.7	44.8	101.1	137.4	149.8
102.5°	6.7	39.1	94.4	129.7	141.2
105°	5.7	34.3	87.8	122.1	132.6
107.5°	4.8	29.6	80.1	114.5	125.0
110°	4.8	24.8	73.4	106.8	117.3



TEST NUMBER: P243182

CATALOG NUMBER: S122DR-H865D927-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.8	21.0	67.7	99.2	109.7
115°	3.8	16.2	61.0	91.6	102.1
117.5°	3.8	11.4	54.4	83.9	94.4
120°	2.9	7.6	48.6	77.3	86.8
122.5°	2.9	4.8	42.0	69.6	79.2
125°	2.9	1.9	36.2	62.0	71.5
127.5°	1.9	1.9	29.6	55.3	63.9
130°	1.9	1.0	23.8	47.7	56.3
132.5°	1.9	1.0	18.1	41.0	48.6
135°	1.0	1.0	12.4	33.4	42.0
137.5°	1.0	1.0	6.7	26.7	33.4
140°	1.0	0.0	2.9	20.0	25.8
142.5°	1.0	0.0	0.0	13.4	19.1
145°	1.0	0.0	0.0	7.6	11.4
147.5°	0.0	0.0	0.0	1.9	5.7
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)