

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1058387

Luminaire Tested: S122RDR-H485D850-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058387
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-59)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H485D850-X4F0-XX-UDD-SVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

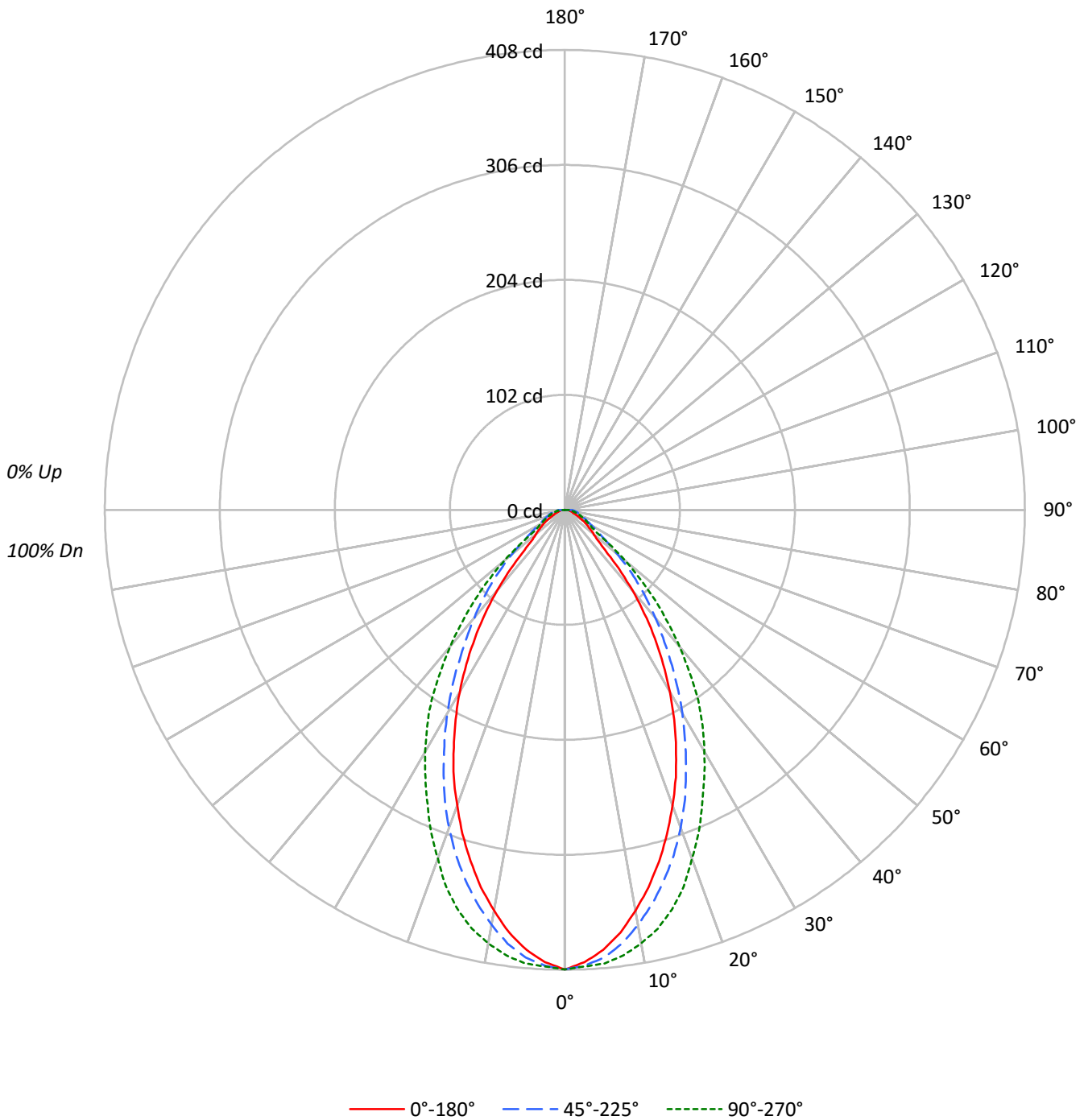
Lumens per Lamp: N/A
Luminaire Lumens: 491.8 lumens
Efficiency: N/A
Efficacy: 28.3 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 0.97 / 0.94
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.4
Input Voltage (V): 120
Input Current (Ain): 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: 24 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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89				89
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80				80
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72				72
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65				65
5	86	75	68	63	84	74	68	63	72	66	62	71	65	61	69	64	61	59				59
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54				54
7	76	65	57	52	74	64	57	52	62	56	52	61	56	52	60	55	51	50				50
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46				46
9	67	56	49	45	66	56	49	44	55	49	44	54	48	44	53	48	44	42				42
10	64	53	46	41	63	52	46	41	51	45	41	50	45	41	50	45	41	39				39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7523	7523	7523
5°	7259	7383	7481
10°	6764	7004	7315
15°	6165	6495	7011
20°	5479	5893	6468
25°	4748	5176	5866
30°	3974	4438	5274
35°	3133	3676	4643
40°	2247	3009	3803
45°	1315	2375	2944
50°	950	1728	1987
55°	798	1235	1039
60°	638	1000	889
65°	524	886	821
70°	448	852	772
75°	428	913	749
80°	478	1116	797
85°	805	1757	1122

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2944 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.4	7.6
10°-20°	95.7	19.5
20°-30°	117.6	23.9
30°-40°	104.0	21.1
40°-50°	66.4	13.5
50°-60°	32.4	6.6
60°-70°	19.3	3.9
70°-80°	12.3	2.5
80°-90°	6.8	1.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	250.7	51.0
0°-40°	354.7	72.1
0°-60°	453.4	92.2
0°-90°	491.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	491.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	408	408	408	408	408	
5°	392	400	399	400	404	36
15°	323	332	340	355	367	90
25°	233	241	254	270	288	107
35°	139	147	163	186	206	86
45°	50	65	91	102	113	42
55°	25	33	38	36	32	22
65°	12	23	20	19	19	12
75°	6	14	13	11	10	7
85°	4	8	8	8	5	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	407.7	407.7	407.7	407.7	407.7
2.5°	401.6	409.2	404.6	404.6	405.4
5°	391.9	400.1	398.6	400.1	403.9
7.5°	378.3	386.6	388.1	394.1	398.6
10°	361.0	369.3	373.8	383.6	390.4
12.5°	343.0	351.2	358.0	370.8	380.6
15°	322.7	331.7	340.0	355.0	367.0
17.5°	301.6	310.6	321.2	336.2	350.5
20°	279.0	287.3	300.1	314.4	329.4
22.5°	257.2	264.8	278.3	291.8	309.9
25°	233.2	241.4	254.2	270.0	288.1
27.5°	209.8	218.1	230.9	249.0	267.8
30°	186.5	194.1	208.3	227.1	247.5
32.5°	162.5	170.0	185.8	206.1	227.1
35°	139.1	146.7	163.2	185.8	206.1
37.5°	115.8	124.1	142.9	164.0	181.3
40°	93.3	103.0	124.9	142.9	157.9
42.5°	70.7	84.2	107.6	122.6	134.6
45°	50.4	64.7	91.0	102.3	112.8
47.5°	38.4	49.6	75.2	83.5	90.3
50°	33.1	40.6	60.2	66.2	69.2
52.5°	28.6	36.1	48.1	50.4	48.9
55°	24.8	33.1	38.4	36.1	32.3
57.5°	21.1	30.8	31.6	27.1	27.8
60°	17.3	27.8	27.1	23.3	24.1
62.5°	14.3	25.6	23.3	21.1	21.1
65°	12.0	22.6	20.3	18.8	18.8
67.5°	9.8	20.3	18.1	16.5	16.5
70°	8.3	18.1	15.8	14.3	14.3
72.5°	7.5	15.8	14.3	12.8	12.8
75°	6.0	13.5	12.8	11.3	10.5
77.5°	5.3	11.3	11.3	10.5	9.0
80°	4.5	9.8	10.5	9.0	7.5
82.5°	4.5	9.0	9.0	8.3	6.0
85°	3.8	7.5	8.3	7.5	5.3
87.5°	2.3	6.8	6.8	6.0	3.8
90°	0.0	0.0	0.0	0.0	0.0



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	9.03	10.31	9.40	10.62	10.94	8.57	9.85	8.93	10.16	10.47
	3H	10.21	11.35	10.59	11.68	12.05	10.12	11.26	10.50	11.59	11.96
	4H	10.64	11.70	11.04	12.05	12.44	10.81	11.87	11.21	12.22	12.60
	6H	10.99	11.97	11.40	12.34	12.73	11.45	12.43	11.87	12.80	13.19
	8H	11.18	12.11	11.61	12.50	12.91	11.74	12.67	12.17	13.06	13.46
	12H	11.40	12.29	11.84	12.67	13.10	12.06	12.94	12.49	13.33	13.76
4H	2H	9.54	10.60	9.94	10.95	11.33	9.17	10.23	9.57	10.58	10.96
	3H	11.19	12.06	11.60	12.47	12.87	10.96	11.84	11.38	12.24	12.65
	4H	11.95	12.73	12.38	13.15	13.60	11.80	12.59	12.24	13.01	13.45
	6H	12.55	13.23	13.02	13.68	14.15	12.66	13.34	13.12	13.78	14.25
	8H	12.85	13.49	13.32	13.93	14.40	13.05	13.68	13.52	14.13	14.60
	12H	13.17	13.73	13.65	14.21	14.69	13.49	14.05	13.97	14.53	15.01
8H	4H	12.37	13.00	12.84	13.45	13.92	12.26	12.90	12.73	13.35	13.82
	6H	13.32	13.84	13.82	14.34	14.82	13.37	13.89	13.87	14.39	14.87
	8H	13.86	14.33	14.38	14.85	15.34	13.95	14.42	14.47	14.93	15.42
	12H	14.43	14.84	14.94	15.34	15.91	14.62	15.03	15.13	15.53	16.10
12H	4H	12.44	13.00	12.92	13.48	13.96	12.35	12.91	12.83	13.39	13.87
	6H	13.50	13.97	14.02	14.48	14.98	13.55	14.02	14.07	14.54	15.03
	8H	14.19	14.61	14.71	15.10	15.67	14.26	14.68	14.78	15.17	15.74