

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: P1058276

Luminaire Tested: S122RDR-H290D830-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058276
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-60)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H290D830-X4F0-XX-UDD-BVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

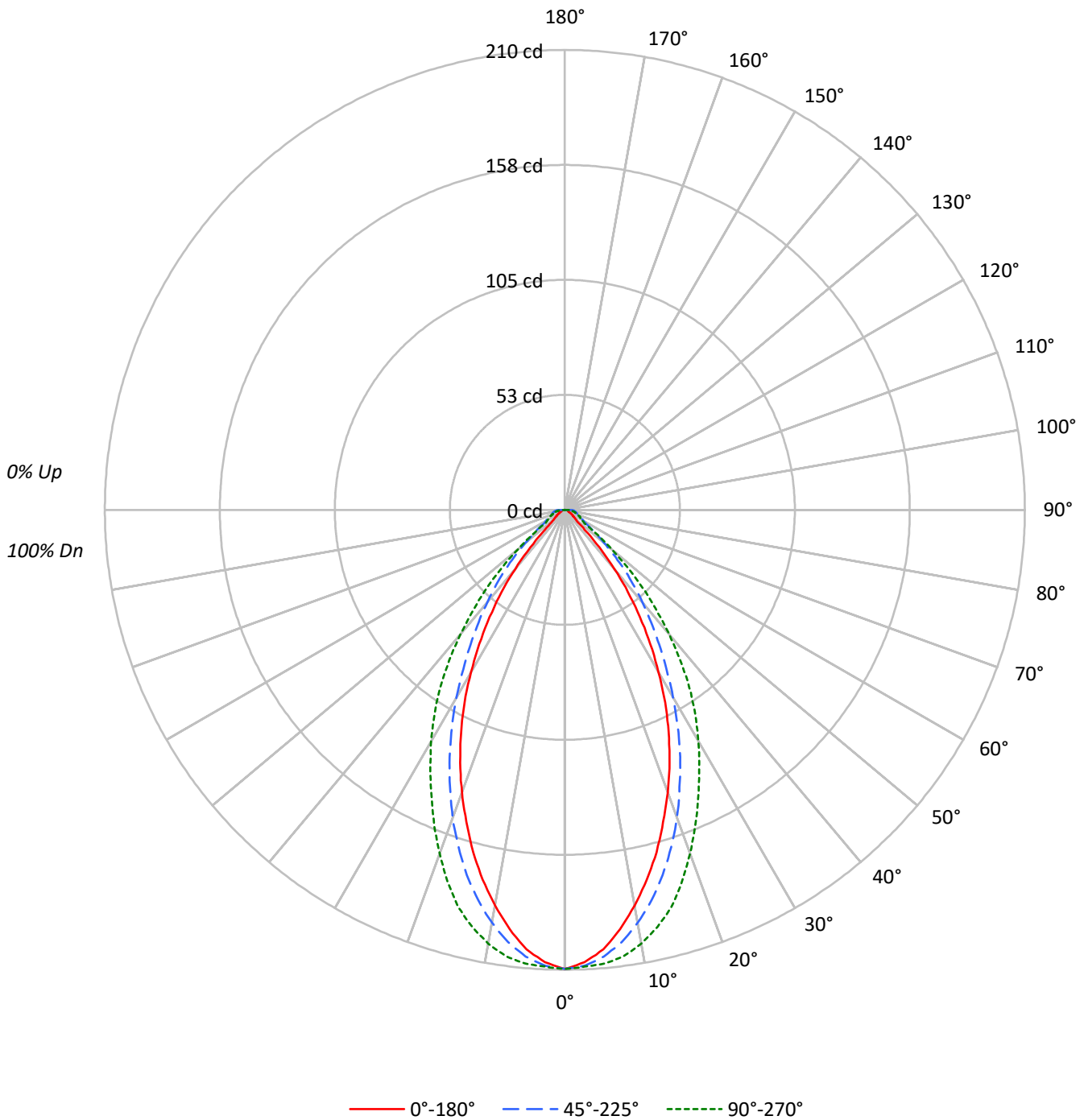
Lumens per Lamp: N/A
Luminaire Lumens: 225.8 lumens
Efficiency: N/A
Efficacy: 19.3 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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	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																																				
1	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90																																				
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81																																				
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74																																				
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67																																				
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	67	63	61																																				
6	82	72	65	60	80	71	64	59	69	63	59	68	63	59	66	62	58	57																																				
7	77	67	60	55	76	66	59	55	65	59	54	63	58	54	62	57	54	52																																				
8	73	62	55	51	72	62	55	51	61	55	50	59	54	50	58	54	50	48																																				
9	69	58	52	47	68	58	51	47	57	51	47	56	51	47	55	50	47	45																																				
10	66	55	48	44	65	54	48	44	54	48	44	53	47	44	52	47	44	42																																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3868	3868	3868
5°	3732	3792	3853
10°	3438	3588	3768
15°	3091	3297	3590
20°	2696	2940	3279
25°	2280	2535	2934
30°	1822	2105	2599
35°	1347	1692	2235
40°	850	1325	1780
45°	334	994	1310
50°	172	669	807
55°	142	438	360
60°	103	354	325
65°	87	332	332
70°	86	345	324
75°	114	399	342
80°	170	510	383
85°	254	847	508

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 87.5°
 Luminance: 1692 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	19.2	8.5
10°-20°	48.4	21.4
20°-30°	57.5	25.5
30°-40°	47.9	21.2
40°-50°	26.7	11.8
50°-60°	10.8	4.8
60°-70°	6.9	3.0
70°-80°	5.2	2.3
80°-90°	3.3	1.5
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°	125.1	55.4
0°-40°	173.0	76.6
0°-60°	210.5	93.2
0°-90°	225.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	225.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	210	210	210	210	210	
5°	202	205	205	206	208	19
15°	162	167	173	182	188	45
25°	112	116	124	134	144	51
35°	60	65	75	88	99	37
45°	13	22	38	45	50	12
55°	4	9	14	13	11	4
65°	2	8	8	7	8	2
75°	2	6	6	5	5	2
85°	1	4	4	4	2	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	209.6	209.6	209.6	209.6	209.6
2.5°	206.8	210.0	208.4	208.4	208.8
5°	201.5	205.2	204.7	206.4	208.0
7.5°	193.1	197.1	199.1	202.7	205.6
10°	183.5	187.9	191.5	197.1	201.1
12.5°	173.0	177.4	182.7	189.9	195.1
15°	161.8	166.6	172.6	181.5	187.9
17.5°	149.3	154.6	161.4	171.0	177.9
20°	137.3	142.5	149.7	159.4	167.0
22.5°	124.9	129.3	136.9	146.5	155.8
25°	112.0	116.4	124.5	134.1	144.1
27.5°	99.2	103.6	111.6	121.6	132.9
30°	85.5	90.3	98.8	110.0	122.0
32.5°	72.7	77.5	86.3	98.8	110.8
35°	59.8	65.4	75.1	87.5	99.2
37.5°	47.4	53.8	64.6	76.3	86.7
40°	35.3	42.2	55.0	65.0	73.9
42.5°	23.3	31.3	46.2	54.6	61.4
45°	12.8	21.7	38.1	44.6	50.2
47.5°	7.2	14.1	30.1	35.3	38.5
50°	6.0	10.4	23.3	26.9	28.1
52.5°	4.8	9.6	17.7	19.7	18.9
55°	4.4	9.2	13.6	13.2	11.2
57.5°	3.6	9.2	10.8	9.6	9.6
60°	2.8	8.8	9.6	8.4	8.8
62.5°	2.4	8.4	8.8	8.0	8.0
65°	2.0	8.0	7.6	7.2	7.6
67.5°	1.6	7.2	7.2	6.8	6.8
70°	1.6	6.8	6.4	6.0	6.0
72.5°	1.6	6.0	6.0	5.6	5.6
75°	1.6	5.6	5.6	5.2	4.8
77.5°	1.6	4.8	5.2	4.8	4.4
80°	1.6	4.4	4.8	4.4	3.6
82.5°	1.6	4.0	4.4	4.0	3.2
85°	1.2	3.6	4.0	3.6	2.4
87.5°	1.2	3.6	4.0	3.2	2.0
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	3.04	4.26	3.41	4.57	4.89	4.12	5.33	4.48	5.65	5.96
	3H	4.37	5.46	4.75	5.79	6.15	6.15	7.23	6.53	7.56	7.93
	4H	4.95	5.96	5.35	6.31	6.69	7.10	8.11	7.50	8.46	8.85
	6H	5.51	6.44	5.93	6.81	7.21	8.05	8.98	8.46	9.35	9.74
	8H	5.84	6.72	6.27	7.11	7.52	8.50	9.38	8.93	9.77	10.17
	12H	6.15	6.99	6.58	7.37	7.80	8.92	9.76	9.35	10.14	10.57
4H	2H	4.00	5.01	4.41	5.37	5.75	4.79	5.80	5.20	6.15	6.54
	3H	6.03	6.86	6.45	7.27	7.67	7.08	7.91	7.49	8.31	8.72
	4H	7.11	7.86	7.55	8.28	8.72	8.22	8.97	8.66	9.39	9.84
	6H	7.98	8.63	8.45	9.08	9.55	9.39	10.04	9.86	10.49	10.96
	8H	8.39	9.00	8.87	9.45	9.92	9.96	10.56	10.43	11.01	11.48
	12H	8.77	9.31	9.26	9.79	10.27	10.50	11.03	10.99	11.52	11.99
8H	4H	7.88	8.49	8.35	8.94	9.41	8.77	9.38	9.25	9.83	10.30
	6H	9.22	9.72	9.73	10.22	10.70	10.23	10.73	10.73	11.22	11.71
	8H	9.94	10.38	10.46	10.90	11.39	10.99	11.44	11.52	11.96	12.45
	12H	10.63	11.02	11.15	11.52	12.09	11.78	12.17	12.30	12.67	13.24
12H	4H	8.04	8.57	8.53	9.06	9.53	8.88	9.42	9.37	9.90	10.38
	6H	9.54	9.99	10.07	10.51	11.00	10.46	10.90	10.98	11.42	11.91
	8H	10.45	10.84	10.96	11.34	11.91	11.36	11.76	11.88	12.25	12.82