

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



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1057898

Luminaire Tested: S122RDRP-S290D850-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057898
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: S122RDRP-S290D850-X4F0-XX-UDD-BVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

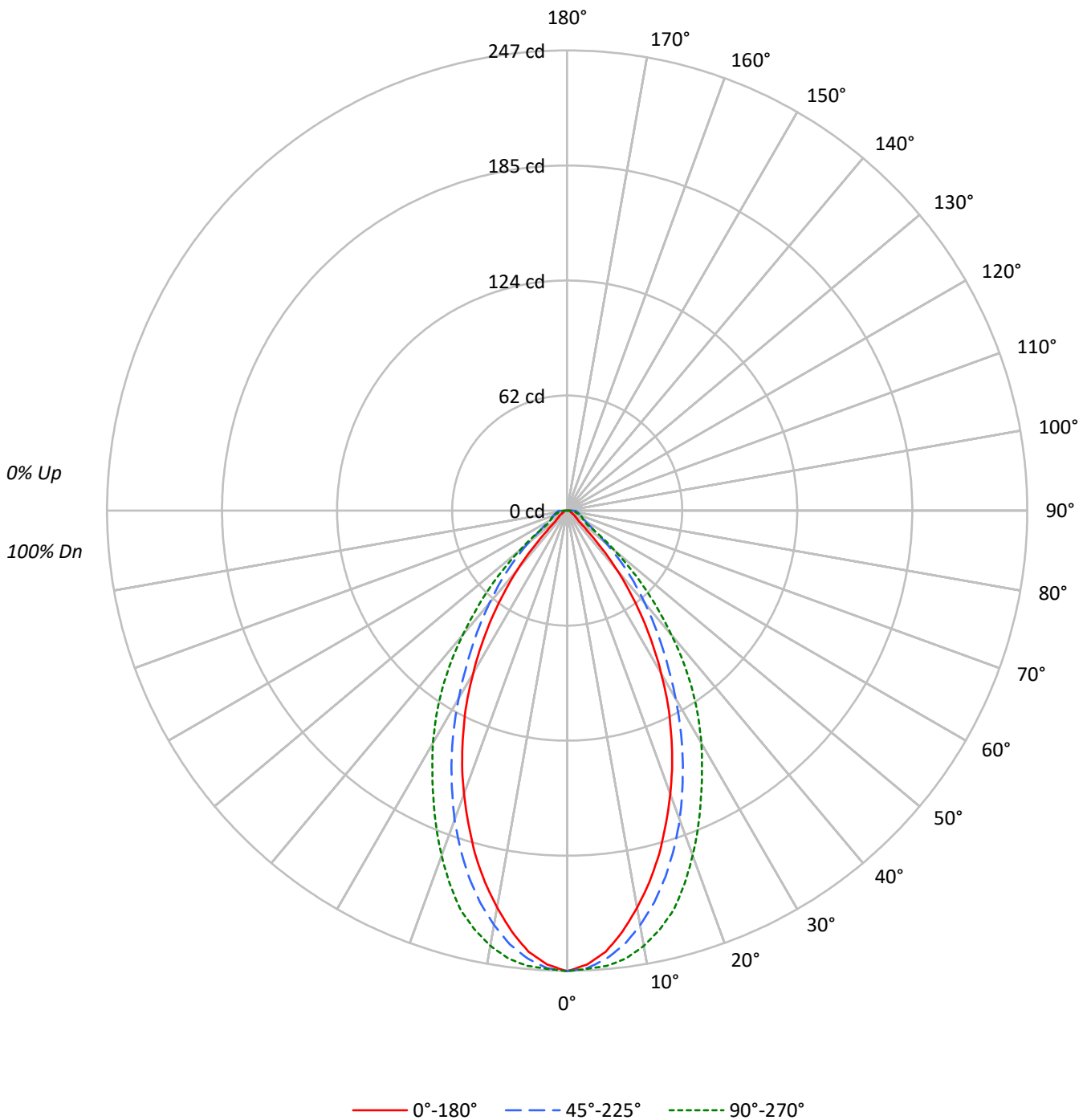
Lumens per Lamp: N/A
Luminaire Lumens: 266.5 lumens
Efficiency: N/A
Efficacy: 21.3 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
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: 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	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°	4561	4561	4561
5°	4403	4473	4544
10°	4055	4233	4444
15°	3645	3889	4233
20°	3179	3468	3868
25°	2690	2989	3461
30°	2150	2482	3068
35°	1590	1996	2636
40°	1004	1563	2098
45°	397	1174	1545
50°	204	789	950
55°	167	518	428
60°	122	421	384
65°	105	393	393
70°	103	410	383
75°	135	471	406
80°	202	606	457
85°	296	995	593

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 87.5°
 Luminance: 1988 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	22.6	8.5
10°-20°	57.1	21.4
20°-30°	67.9	25.5
30°-40°	56.5	21.2
40°-50°	31.5	11.8
50°-60°	12.7	4.8
60°-70°	8.2	3.1
70°-80°	6.1	2.3
80°-90°	3.9	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°	147.6	55.4
0°-40°	204.0	76.6
0°-60°	248.3	93.2
0°-90°	266.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	266.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	247	247	247	247	247	
5°	238	242	242	243	245	22
15°	191	196	204	214	222	53
25°	132	137	147	158	170	60
35°	71	77	89	103	117	44
45°	15	26	45	53	59	14
55°	5	11	16	16	13	5
65°	2	10	9	8	9	2
75°	2	7	7	6	6	2
85°	1	4	5	4	3	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	247.2	247.2	247.2	247.2	247.2
2.5°	243.9	247.7	245.8	245.8	246.2
5°	237.7	242.0	241.5	243.4	245.3
7.5°	227.8	232.5	234.9	239.1	242.4
10°	216.4	221.6	225.9	232.5	237.2
12.5°	204.1	209.3	215.5	224.0	230.1
15°	190.8	196.5	203.6	214.0	221.6
17.5°	176.2	182.3	190.4	201.7	209.8
20°	161.9	168.1	176.6	188.0	197.0
22.5°	147.3	152.5	161.5	172.8	183.7
25°	132.1	137.3	146.8	158.2	170.0
27.5°	117.0	122.2	131.6	143.5	156.7
30°	100.9	106.5	116.5	129.7	144.0
32.5°	85.7	91.4	101.8	116.5	130.7
35°	70.6	77.2	88.6	103.2	117.0
37.5°	55.9	63.5	76.2	90.0	102.3
40°	41.7	49.7	64.9	76.7	87.1
42.5°	27.5	36.9	54.5	64.4	72.5
45°	15.2	25.6	45.0	52.6	59.2
47.5°	8.5	16.6	35.5	41.7	45.5
50°	7.1	12.3	27.5	31.7	33.1
52.5°	5.7	11.4	20.8	23.2	22.3
55°	5.2	10.9	16.1	15.6	13.3
57.5°	4.3	10.9	12.8	11.4	11.4
60°	3.3	10.4	11.4	9.9	10.4
62.5°	2.8	9.9	10.4	9.5	9.5
65°	2.4	9.5	9.0	8.5	9.0
67.5°	1.9	8.5	8.5	8.1	8.1
70°	1.9	8.1	7.6	7.1	7.1
72.5°	1.9	7.1	7.1	6.6	6.6
75°	1.9	6.6	6.6	6.2	5.7
77.5°	1.9	5.7	6.2	5.7	5.2
80°	1.9	5.2	5.7	5.2	4.3
82.5°	1.9	4.7	5.2	4.7	3.8
85°	1.4	4.3	4.7	4.3	2.8
87.5°	1.4	4.3	4.7	3.8	2.4
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	3.65	4.87	4.01	5.18	5.49	4.73	5.95	5.10	6.26	6.58
	3H	4.98	6.06	5.36	6.39	6.76	6.76	7.85	7.14	8.18	8.54
	4H	5.55	6.56	5.95	6.91	7.30	7.72	8.73	8.12	9.08	9.46
	6H	6.12	7.05	6.53	7.42	7.81	8.66	9.59	9.08	9.96	10.36
	8H	6.44	7.32	6.87	7.71	8.12	9.11	9.99	9.54	10.38	10.79
	12H	6.75	7.59	7.18	7.97	8.40	9.53	10.37	9.96	10.75	11.18
4H	2H	4.61	5.62	5.01	5.97	6.35	5.40	6.41	5.81	6.77	7.15
	3H	6.64	7.47	7.05	7.88	8.28	7.69	8.52	8.10	8.92	9.33
	4H	7.71	8.46	8.15	8.88	9.32	8.84	9.59	9.27	10.01	10.45
	6H	8.58	9.23	9.05	9.68	10.15	10.01	10.65	10.47	11.10	11.57
	8H	8.99	9.60	9.46	10.05	10.52	10.57	11.17	11.04	11.62	12.09
	12H	9.37	9.91	9.86	10.39	10.86	11.10	11.64	11.59	12.12	12.60
8H	4H	8.48	9.09	8.95	9.54	10.01	9.39	9.99	9.86	10.44	10.91
	6H	9.82	10.32	10.33	10.82	11.30	10.84	11.34	11.34	11.83	12.32
	8H	10.53	10.98	11.06	11.50	11.99	11.60	12.04	12.12	12.56	13.05
	12H	11.23	11.62	11.74	12.12	12.69	12.38	12.78	12.90	13.27	13.84
12H	4H	8.64	9.17	9.13	9.66	10.13	9.50	10.03	9.98	10.51	10.99
	6H	10.14	10.59	10.67	11.11	11.60	11.06	11.51	11.59	12.03	12.52
	8H	11.04	11.43	11.56	11.93	12.50	11.97	12.36	12.48	12.85	13.43