

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: P1058293

Luminaire Tested: S122RDR-H290D840-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058293
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-21)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H290D840-X4F0-XX-UDD-BVL-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

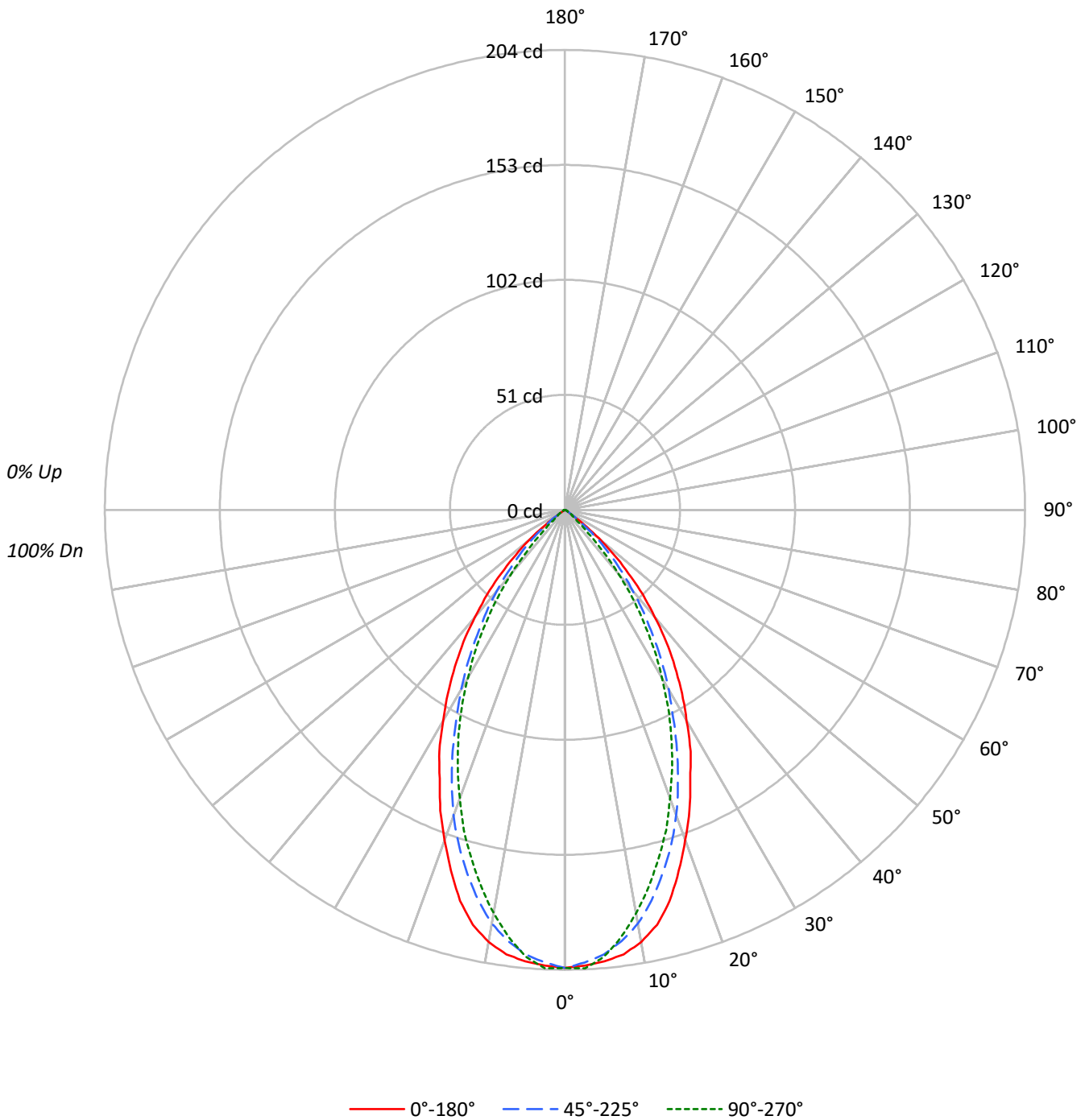
Lumens per Lamp: N/A
Luminaire Lumens: 191.0 lumens
Efficiency: N/A
Efficacy: 16.3 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 0.8 / 0.88
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				
1	113	110	108	105	111	108	106	104	104	102	101	100	99	98	97	96	95	93				
2	107	102	98	94	105	100	97	93	97	94	91	94	92	89	91	89	87	86				
3	101	95	90	85	99	93	89	85	91	87	83	88	85	82	86	83	81	79				
4	96	88	82	78	94	87	81	77	85	80	76	83	79	75	81	77	75	73				
5	91	82	76	71	89	81	75	71	79	74	70	77	73	70	76	72	69	67				
6	86	76	70	66	84	76	70	65	74	69	65	73	68	64	71	67	64	62				
7	81	71	65	61	80	71	65	61	69	64	60	68	63	60	67	63	60	58				
8	77	67	61	56	76	66	60	56	65	60	56	64	59	56	63	59	56	54				
9	73	63	57	53	72	62	57	52	61	56	52	61	56	52	60	55	52	51				
10	69	59	53	49	68	59	53	49	58	53	49	57	52	49	56	52	49	47				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3750	3750	3750
5°	3723	3668	3684
10°	3646	3493	3405
15°	3429	3192	3060
20°	3061	2834	2675
25°	2675	2396	2274
30°	2297	1958	1830
35°	1915	1530	1374
40°	1491	1127	879
45°	1041	752	381
50°	568	393	135
55°	84	138	97
60°	15	33	63
65°	0	17	39
70°	0	0	22
75°	0	0	0
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1041 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	18.7	9.8
10°-20°	47.0	24.6
20°-30°	54.8	28.7
30°-40°	44.0	23.0
40°-50°	21.8	11.4
50°-60°	4.3	2.3
60°-70°	0.4	0.2
70°-80°	0.0	0.0
80°-90°	0.0	0.0
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°	120.5	63.1
0°-40°	164.5	86.1
0°-60°	190.6	99.8
0°-90°	191.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	191.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	203	203	203	203	203	
5°	201	201	198	198	199	19
15°	180	176	167	163	160	50
25°	131	125	118	115	112	60
35°	85	76	68	65	61	53
45°	40	35	29	19	15	31
55°	3	5	4	3	3	5
65°	0	0	0	0	1	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	203.2	203.2	203.2	203.2	203.2
2.5°	202.3	203.2	201.0	203.2	203.6
5°	201.0	201.0	198.0	198.4	198.9
7.5°	198.9	198.0	192.9	192.0	191.1
10°	194.6	192.9	186.4	183.0	181.7
12.5°	188.6	186.0	177.4	173.5	171.4
15°	179.5	176.1	167.1	162.8	160.2
17.5°	167.9	164.9	156.3	151.6	149.0
20°	155.9	151.6	144.3	139.6	136.2
22.5°	144.3	138.7	131.0	127.6	124.1
25°	131.4	125.0	117.7	115.1	111.7
27.5°	120.7	112.5	103.9	102.2	99.2
30°	107.8	100.1	91.9	89.3	85.9
32.5°	96.6	88.1	79.9	76.9	73.9
35°	85.0	76.5	67.9	64.9	61.0
37.5°	73.9	65.7	57.1	52.4	49.0
40°	61.9	55.0	46.8	40.8	36.5
42.5°	51.1	45.1	37.4	29.6	25.3
45°	39.9	35.2	28.8	19.3	14.6
47.5°	29.6	26.2	21.0	11.2	7.7
50°	19.8	18.5	13.7	5.6	4.7
52.5°	10.7	11.6	8.2	3.4	3.9
55°	2.6	5.2	4.3	2.6	3.0
57.5°	0.4	0.9	2.1	2.1	2.1
60°	0.4	0.4	0.9	1.3	1.7
62.5°	0.4	0.0	0.4	0.9	1.3
65°	0.0	0.0	0.4	0.4	0.9
67.5°	0.0	0.0	0.0	0.4	0.4
70°	0.0	0.0	0.0	0.4	0.4
72.5°	0.0	0.0	0.0	0.0	0.4
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4H	2H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8H	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12H	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00