

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: P1058350

Luminaire Tested: S122RDR-H290D950-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058350
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-20)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H290D950-X4F0-XX-UDD-SVL-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

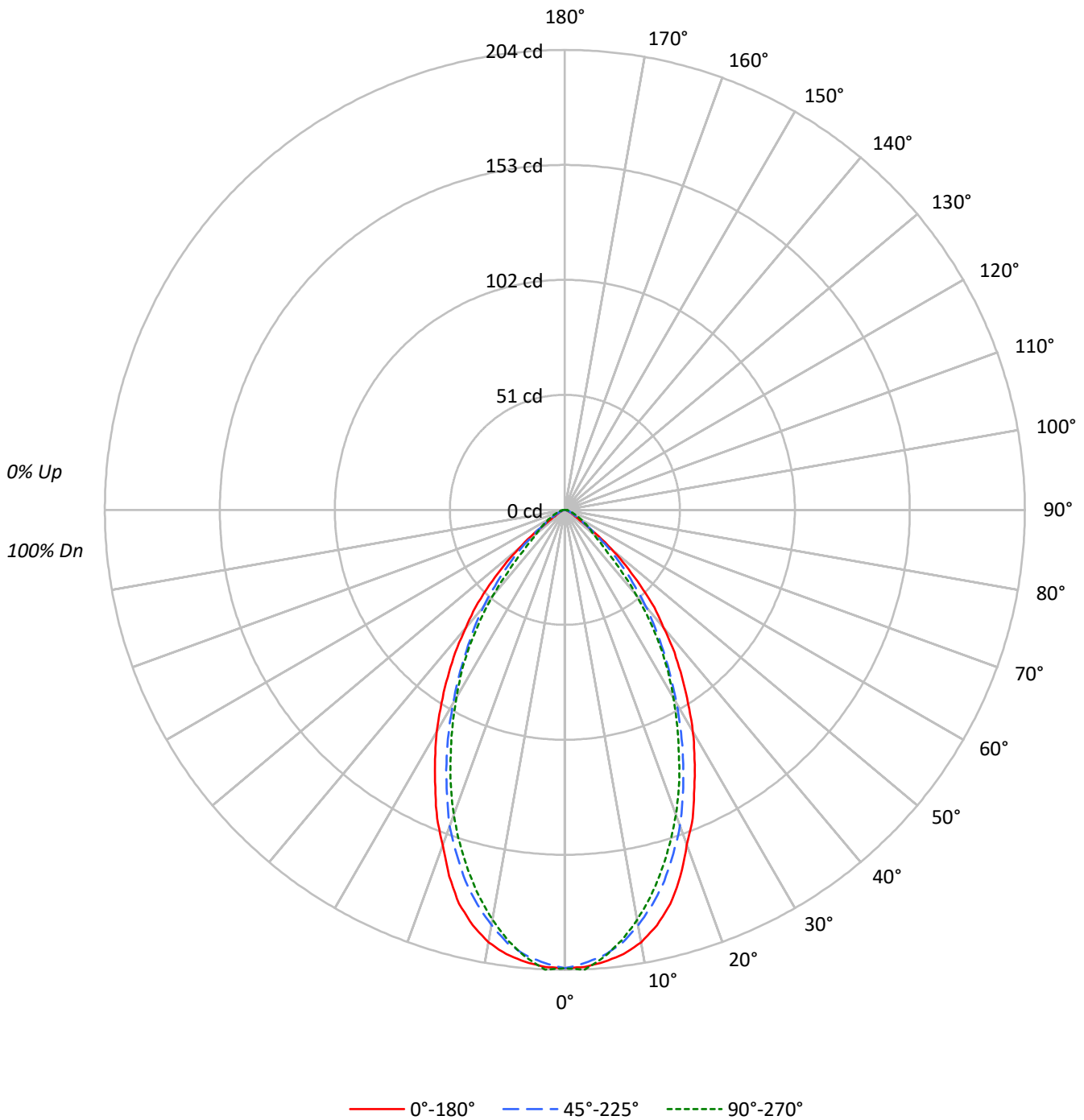
Lumens per Lamp: N/A
Luminaire Lumens: 218.6 lumens
Efficiency: N/A
Efficacy: 18.7 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 0.85 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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			100	
1	113	110	107	104	110	107	105	103	103	101	99	100	98	96	96	95	94	92			92	
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84			84	
3	100	93	87	82	98	91	86	82	88	84	80	86	82	79	84	81	78	76			76	
4	94	85	79	74	92	84	78	74	82	77	73	80	76	72	78	74	71	70			70	
5	88	79	72	68	87	78	72	67	76	71	67	74	70	66	73	69	65	64			64	
6	83	73	67	62	82	72	66	62	71	65	61	69	64	61	68	64	60	59			59	
7	79	68	62	57	77	68	61	57	66	60	56	65	60	56	64	59	56	54			54	
8	74	64	57	53	73	63	57	52	62	56	52	61	56	52	60	55	52	50			50	
9	70	60	53	49	69	59	53	49	58	52	48	57	52	48	56	52	48	47			47	
10	67	56	50	45	66	56	49	45	55	49	45	54	49	45	53	48	45	44			44	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3751	3751	3751
5°	3729	3675	3690
10°	3650	3506	3459
15°	3458	3255	3162
20°	3107	2932	2828
25°	2767	2529	2437
30°	2420	2109	2050
35°	2039	1710	1653
40°	1643	1349	1192
45°	1229	973	710
50°	769	629	465
55°	261	338	380
60°	151	210	299
65°	105	140	231
70°	86	108	173
75°	57	86	143
80°	43	85	128
85°	0	0	85

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1229 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	18.7	8.6
10°-20°	48.0	21.9
20°-30°	57.8	26.4
30°-40°	49.3	22.6
40°-50°	28.9	13.2
50°-60°	10.5	4.8
60°-70°	3.7	1.7
70°-80°	1.5	0.7
80°-90°	0.3	0.1
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°	124.4	56.9
0°-40°	173.8	79.5
0°-60°	213.2	97.5
0°-90°	218.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	218.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	203	203	203	203	203	
5°	201	202	198	199	199	19
15°	181	178	170	167	166	50
25°	136	130	124	122	120	62
35°	90	84	76	75	73	56
45°	47	42	37	31	27	36
55°	8	11	10	11	12	10
65°	2	3	3	4	5	3
75°	1	1	1	2	2	1
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	203.3	203.3	203.3	203.3	203.3
2.5°	202.9	203.3	201.3	203.3	204.1
5°	201.3	201.7	198.4	199.2	199.2
7.5°	198.8	198.4	193.9	193.1	192.7
10°	194.8	193.5	187.1	185.8	184.6
12.5°	188.7	186.2	179.3	177.3	175.7
15°	181.0	178.1	170.4	167.2	165.5
17.5°	170.4	167.2	159.9	156.6	155.0
20°	158.2	155.0	149.3	145.7	144.0
22.5°	148.1	142.8	136.7	134.3	132.3
25°	135.9	130.2	124.2	122.1	119.7
27.5°	124.6	117.7	111.6	110.0	107.9
30°	113.6	106.3	99.0	99.0	96.2
32.5°	101.8	94.9	87.2	86.8	85.2
35°	90.5	83.6	75.9	75.1	73.4
37.5°	79.9	73.0	65.7	63.3	61.3
40°	68.2	62.1	56.0	51.9	49.5
42.5°	58.8	51.9	45.8	41.0	37.7
45°	47.1	42.2	37.3	31.2	27.2
47.5°	36.5	33.3	29.2	22.3	20.3
50°	26.8	25.2	21.9	16.6	16.2
52.5°	17.0	17.9	15.8	13.0	14.2
55°	8.1	11.4	10.5	11.0	11.8
57.5°	5.3	5.7	7.7	8.9	9.7
60°	4.1	4.1	5.7	7.3	8.1
62.5°	3.2	3.2	4.5	6.1	6.5
65°	2.4	2.8	3.2	4.5	5.3
67.5°	2.0	2.0	2.4	3.7	4.1
70°	1.6	1.6	2.0	2.8	3.2
72.5°	1.2	1.2	1.6	2.4	2.4
75°	0.8	1.2	1.2	1.6	2.0
77.5°	0.8	0.8	0.8	1.2	1.6
80°	0.4	0.4	0.8	0.8	1.2
82.5°	0.4	0.4	0.4	0.4	0.8
85°	0.0	0.0	0.0	0.4	0.4
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	0.51	1.67	0.87	1.98	2.30	3.85	5.02	4.22	5.33	5.64
	3H	1.00	2.03	1.38	2.36	2.72	4.59	5.61	4.97	5.94	6.31
	4H	1.13	2.08	1.54	2.43	2.82	4.80	5.75	5.20	6.10	6.49
	6H	1.20	2.07	1.62	2.44	2.84	4.94	5.81	5.36	6.18	6.58
	8H	1.20	2.02	1.64	2.41	2.82	4.97	5.79	5.41	6.18	6.59
	12H	1.17	1.95	1.60	2.33	2.76	4.97	5.75	5.41	6.14	6.57
4H	2H	0.80	1.75	1.20	2.10	2.48	3.82	4.76	4.22	5.12	5.50
	3H	1.43	2.20	1.85	2.61	3.01	4.70	5.46	5.11	5.87	6.27
	4H	1.67	2.35	2.10	2.77	3.22	4.97	5.65	5.41	6.07	6.52
	6H	1.78	2.37	2.25	2.82	3.29	5.19	5.77	5.65	6.22	6.69
	8H	1.79	2.34	2.27	2.79	3.26	5.23	5.78	5.70	6.23	6.70
	12H	1.76	2.24	2.25	2.72	3.20	5.25	5.73	5.74	6.21	6.69
8H	4H	1.77	2.31	2.24	2.76	3.24	4.90	5.44	5.37	5.89	6.37
	6H	1.93	2.37	2.44	2.87	3.35	5.15	5.59	5.66	6.09	6.57
	8H	1.97	2.37	2.50	2.89	3.38	5.21	5.60	5.74	6.12	6.62
	12H	1.95	2.30	2.47	2.79	3.37	5.27	5.62	5.79	6.11	6.69
12H	4H	1.75	2.23	2.24	2.72	3.19	4.85	5.33	5.34	5.81	6.29
	6H	1.93	2.32	2.45	2.84	3.33	5.10	5.50	5.63	6.01	6.51
	8H	2.00	2.34	2.51	2.84	3.42	5.18	5.53	5.70	6.03	6.60