

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: P1058331

Luminaire Tested: S122RDR-H290D935-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058331
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-57)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H290D935-X4F0-XX-UDD-BVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

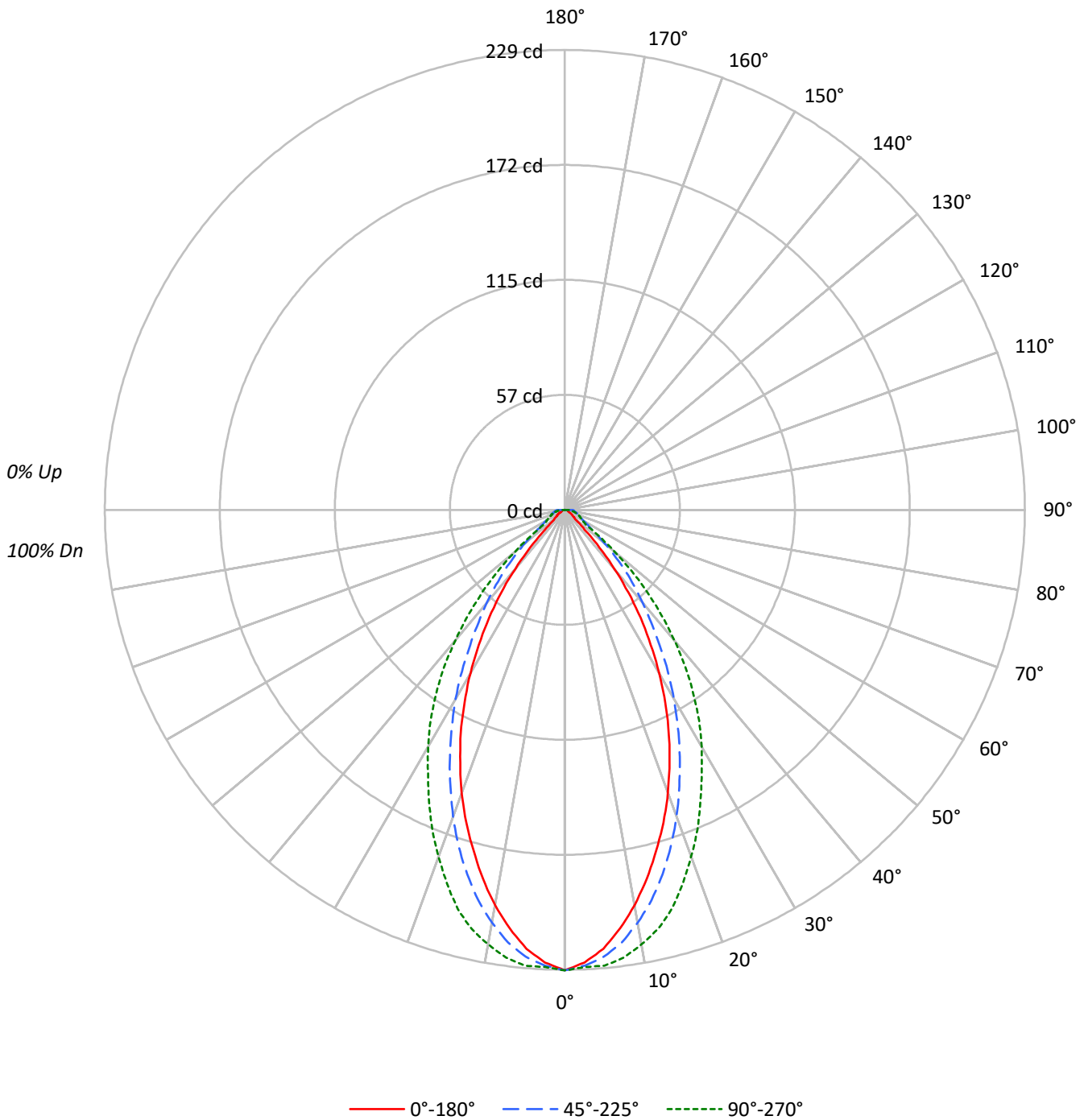
Lumens per Lamp: N/A
Luminaire Lumens: 249.5 lumens
Efficiency: N/A
Efficacy: 21.3 lumens/watt
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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				
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	76	81	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	67	64	71	66	63	61				
6	82	72	65	60	80	71	64	59	69	63	59	68	62	58	66	62	58	56				
7	77	67	60	55	76	66	59	55	64	59	54	63	58	54	62	57	54	52				
8	73	62	55	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48				
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45				
10	66	55	48	44	64	54	48	44	53	48	44	53	47	43	52	47	43	42				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4231	4231	4231
5°	4064	4138	4220
10°	3746	3910	4117
15°	3356	3588	3931
20°	2946	3191	3609
25°	2494	2757	3256
30°	2001	2314	2900
35°	1480	1852	2512
40°	927	1450	2040
45°	363	1091	1514
50°	178	738	927
55°	142	483	412
60°	107	391	380
65°	79	367	367
70°	97	378	378
75°	107	421	392
80°	159	542	425
85°	318	932	614

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 87.5°
 Luminance: 1692 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	20.9	8.4
10°-20°	52.9	21.2
20°-30°	63.3	25.4
30°-40°	53.3	21.4
40°-50°	30.4	12.2
50°-60°	12.0	4.8
60°-70°	7.5	3.0
70°-80°	5.6	2.2
80°-90°	3.6	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°	137.2	55.0
0°-40°	190.5	76.4
0°-60°	232.8	93.3
0°-90°	249.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	249.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	229	229	229	229	229	
5°	219	224	223	226	228	20
15°	176	182	188	199	206	49
25°	122	128	135	149	160	56
35°	66	72	82	100	112	41
45°	14	25	42	52	58	13
55°	4	10	15	15	13	4
65°	2	8	8	8	8	2
75°	2	6	6	6	6	2
85°	2	4	4	4	3	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	229.3	229.3	229.3	229.3	229.3
2.5°	225.6	229.6	227.1	227.4	227.8
5°	219.4	224.1	223.4	226.0	227.8
7.5°	210.2	215.3	217.2	221.6	224.9
10°	199.9	205.8	208.7	215.7	219.7
12.5°	188.2	194.8	199.2	208.0	213.9
15°	175.7	181.9	187.8	198.8	205.8
17.5°	163.2	169.5	175.7	187.8	195.1
20°	150.0	155.9	162.5	175.3	183.8
22.5°	136.1	142.3	148.9	162.1	172.4
25°	122.5	128.0	135.4	149.3	159.9
27.5°	108.2	113.7	121.8	136.1	147.5
30°	93.9	99.4	108.6	123.2	136.1
32.5°	79.6	85.5	95.4	111.5	124.3
35°	65.7	71.5	82.2	99.8	111.5
37.5°	52.1	58.7	70.4	87.7	98.7
40°	38.5	46.2	60.2	75.6	84.7
42.5°	25.7	35.2	50.6	63.5	71.2
45°	13.9	24.6	41.8	52.5	58.0
47.5°	7.7	15.8	33.4	41.8	45.1
50°	6.2	11.0	25.7	31.9	32.3
52.5°	5.1	9.9	19.1	22.7	20.9
55°	4.4	9.5	15.0	15.4	12.8
57.5°	3.7	9.2	12.5	11.0	11.0
60°	2.9	9.2	10.6	9.9	10.3
62.5°	2.2	9.2	9.5	8.8	9.2
65°	1.8	8.4	8.4	8.1	8.4
67.5°	1.8	7.7	7.7	7.3	7.7
70°	1.8	7.3	7.0	7.0	7.0
72.5°	1.5	6.6	6.6	6.2	6.2
75°	1.5	5.9	5.9	5.5	5.5
77.5°	1.5	5.5	5.5	5.1	4.8
80°	1.5	4.8	5.1	4.8	4.0
82.5°	1.5	4.4	4.8	4.4	3.3
85°	1.5	4.0	4.4	4.0	2.9
87.5°	1.1	4.0	4.0	3.3	2.2
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	2.73	3.95	3.09	4.26	4.58	4.72	5.95	5.09	6.26	6.57
	3H	4.25	5.33	4.63	5.66	6.03	6.70	7.78	7.08	8.12	8.48
	4H	4.81	5.82	5.22	6.18	6.56	7.61	8.62	8.01	8.97	9.36
	6H	5.38	6.31	5.80	6.68	7.08	8.49	9.42	8.91	9.80	10.19
	8H	5.68	6.56	6.11	6.95	7.36	8.90	9.78	9.33	10.17	10.58
	12H	6.05	6.89	6.48	7.27	7.71	9.33	10.18	9.77	10.56	10.99
4H	2H	3.89	4.91	4.30	5.26	5.64	5.34	6.35	5.74	6.70	7.09
	3H	6.08	6.92	6.50	7.32	7.72	7.59	8.42	8.00	8.83	9.23
	4H	7.15	7.90	7.58	8.32	8.76	8.66	9.41	9.09	9.83	10.27
	6H	8.05	8.70	8.52	9.15	9.62	9.77	10.42	10.23	10.86	11.33
	8H	8.44	9.05	8.92	9.50	9.97	10.29	10.90	10.76	11.35	11.82
	12H	8.87	9.40	9.36	9.89	10.36	10.86	11.40	11.35	11.88	12.35
8H	4H	7.95	8.56	8.42	9.00	9.48	9.15	9.76	9.62	10.20	10.68
	6H	9.34	9.84	9.84	10.33	10.81	10.55	11.05	11.05	11.54	12.03
	8H	10.06	10.51	10.58	11.02	11.52	11.29	11.74	11.81	12.25	12.75
	12H	10.81	11.20	11.32	11.70	12.27	12.11	12.50	12.63	13.00	13.57
12H	4H	8.11	8.65	8.60	9.13	9.61	9.25	9.79	9.74	10.27	10.75
	6H	9.67	10.12	10.19	10.63	11.13	10.77	11.21	11.29	11.73	12.22
	8H	10.59	10.98	11.10	11.48	12.05	11.65	12.05	12.17	12.54	13.12