

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: P1058326

Luminaire Tested: S122RDR-H290D930-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058326
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-19)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H290D930-X4F0-XX-UDD-WVL-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

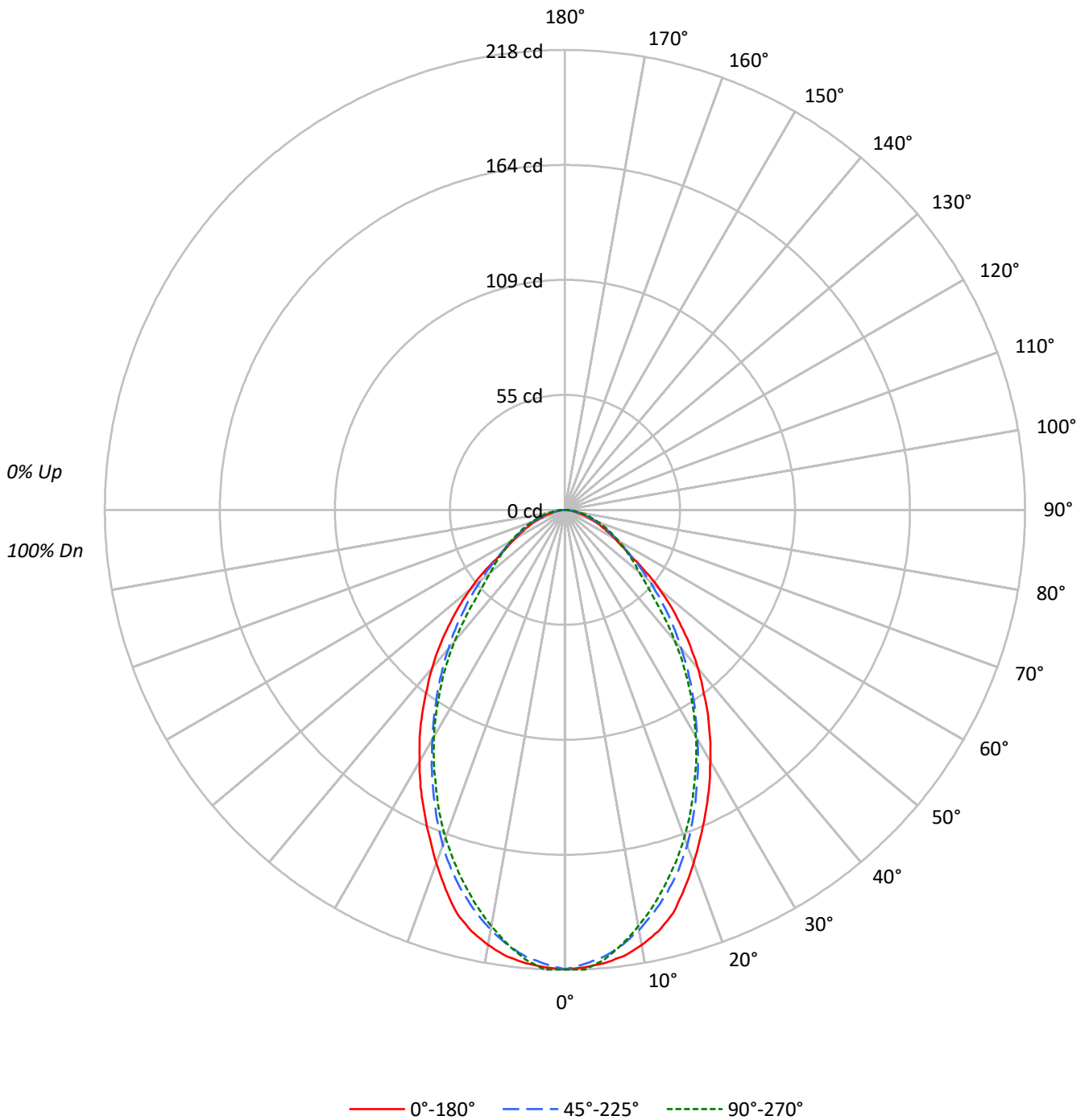
Lumens per Lamp: N/A
Luminaire Lumens: 330.8 lumens
Efficiency: N/A
Efficacy: 28.3 lumens/watt
Spacing Criteria (0/90/45): 1 / 0.92 / 1.02
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88				88
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77				77
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68				68
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61				61
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54				54
6	77	66	58	52	75	65	57	52	63	56	52	61	56	51	60	55	51	49				49
7	72	60	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	44				44
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41				41
9	64	52	45	40	63	51	44	39	50	44	39	49	43	39	48	43	39	37				37
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34				34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4019	4019	4019
5°	3995	3938	3964
10°	3925	3789	3755
15°	3782	3584	3511
20°	3499	3323	3248
25°	3213	3001	2944
30°	2934	2674	2644
35°	2656	2368	2311
40°	2363	2064	1954
45°	2035	1775	1566
50°	1682	1493	1315
55°	1216	1239	1184
60°	1011	1063	1074
65°	865	926	982
70°	712	825	896
75°	592	692	813
80°	446	553	733
85°	148	296	656

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2035 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	20.1	6.1
10°-20°	53.0	16.0
20°-30°	68.6	20.7
30°-40°	67.3	20.3
40°-50°	53.0	16.0
50°-60°	34.7	10.5
60°-70°	21.2	6.4
70°-80°	10.6	3.2
80°-90°	2.3	0.7
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°	141.8	42.9
0°-40°	209.0	63.2
0°-60°	296.8	89.7
0°-90°	330.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	330.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	218	218	218	218	218	
5°	216	216	213	214	214	20
15°	198	195	188	185	184	55
25°	158	153	147	147	145	73
35°	118	111	105	105	103	74
45°	78	73	68	63	60	60
55°	38	40	38	37	37	36
65°	20	20	21	22	22	20
75°	8	9	10	11	11	9
85°	1	1	1	2	3	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	217.8	217.8	217.8	217.8	217.8
2.5°	217.1	217.4	215.4	217.4	218.1
5°	215.7	215.7	212.6	214.0	214.0
7.5°	213.3	212.9	208.1	208.1	207.7
10°	209.5	208.1	202.2	201.1	200.4
12.5°	204.6	202.2	195.2	193.5	192.5
15°	198.0	195.2	187.6	185.2	183.8
17.5°	188.3	185.5	178.9	176.2	174.8
20°	178.2	174.1	169.2	166.8	165.4
22.5°	167.8	163.0	158.5	156.7	155.4
25°	157.8	152.6	147.4	146.7	144.6
27.5°	148.1	141.8	136.6	136.3	134.6
30°	137.7	131.1	125.5	125.9	124.1
32.5°	128.0	121.7	115.1	115.5	113.4
35°	117.9	111.3	105.1	104.7	102.6
37.5°	107.5	101.3	95.4	94.0	91.9
40°	98.1	91.9	85.7	83.2	81.1
42.5°	88.1	82.5	77.0	73.2	70.4
45°	78.0	73.2	68.0	63.1	60.0
47.5°	68.3	64.5	60.0	54.1	52.0
50°	58.6	55.8	52.0	46.8	45.8
52.5°	48.5	47.5	45.1	41.6	41.3
55°	37.8	39.9	38.5	37.1	36.8
57.5°	31.9	32.3	33.3	32.9	32.9
60°	27.4	27.4	28.8	29.1	29.1
62.5°	23.2	23.6	25.0	25.7	25.7
65°	19.8	20.1	21.2	22.2	22.5
67.5°	16.3	17.0	18.0	19.1	19.4
70°	13.2	13.9	15.3	16.3	16.6
72.5°	10.8	11.1	12.5	13.5	13.9
75°	8.3	8.7	9.7	11.1	11.4
77.5°	5.9	6.6	7.6	8.7	9.4
80°	4.2	4.5	5.2	6.6	6.9
82.5°	2.4	2.8	3.5	4.5	4.9
85°	0.7	1.0	1.4	2.4	3.1
87.5°	0.0	0.0	0.0	0.7	1.4
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	10.96	12.36	11.33	12.67	12.99	11.12	12.52	11.49	12.83	13.15
	3H	12.09	13.34	12.47	13.67	14.03	12.59	13.83	12.97	14.16	14.52
	4H	12.45	13.61	12.85	13.96	14.34	13.13	14.29	13.53	14.64	15.02
	6H	12.63	13.70	13.04	14.07	14.46	13.54	14.61	13.96	14.98	15.38
	8H	12.66	13.67	13.09	14.07	14.47	13.67	14.69	14.10	15.08	15.48
	12H	12.64	13.61	13.07	14.00	14.43	13.76	14.73	14.19	15.11	15.54
4H	2H	11.42	12.59	11.82	12.94	13.32	11.56	12.72	11.96	13.07	13.45
	3H	12.76	13.72	13.17	14.12	14.52	13.23	14.19	13.64	14.59	14.99
	4H	13.21	14.06	13.64	14.48	14.92	13.89	14.75	14.33	15.17	15.61
	6H	13.48	14.22	13.94	14.67	15.13	14.43	15.17	14.89	15.62	16.08
	8H	13.52	14.22	13.99	14.66	15.13	14.60	15.29	15.07	15.74	16.21
	12H	13.52	14.13	14.00	14.61	15.09	14.72	15.34	15.21	15.82	16.29
8H	4H	13.42	14.11	13.89	14.56	15.03	14.04	14.74	14.51	15.18	15.65
	6H	13.77	14.33	14.27	14.83	15.31	14.68	15.25	15.18	15.74	16.22
	8H	13.84	14.35	14.36	14.87	15.36	14.91	15.42	15.43	15.94	16.43
	12H	13.86	14.31	14.37	14.80	15.37	15.10	15.55	15.61	16.04	16.61
12H	4H	13.43	14.05	13.91	14.53	15.00	14.03	14.65	14.51	15.13	15.60
	6H	13.79	14.30	14.31	14.81	15.30	14.67	15.18	15.19	15.70	16.19
	8H	13.91	14.36	14.42	14.85	15.42	14.95	15.40	15.46	15.89	16.46