

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: P1058282

Luminaire Tested: S122RDR-H290D830-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058282
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-58)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H290D830-X4F0-XX-UDD-WVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

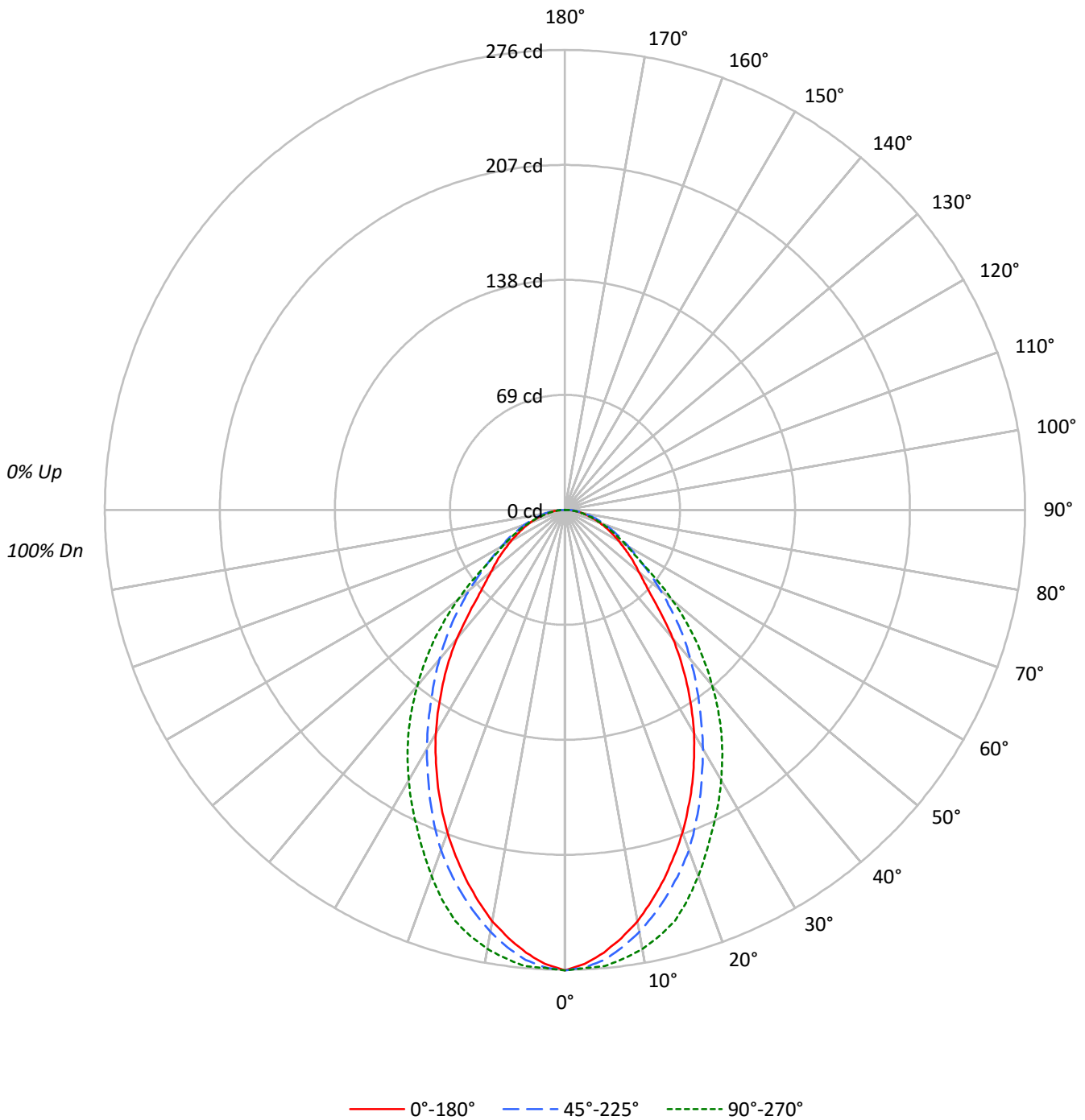
Lumens per Lamp: N/A
Luminaire Lumens: 450.1 lumens
Efficiency: N/A
Efficacy: 38.5 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87				
2	102	95	89	84	100	93	88	83	90	85	81	87	83	79	84	80	78	76				
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66				
4	88	77	69	63	85	76	69	63	73	67	62	71	66	61	69	64	61	59				
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52				
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47				
7	71	59	51	45	69	58	51	45	57	50	45	55	49	45	54	49	44	43				
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41	39				
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36				
10	59	47	40	35	58	46	39	35	45	39	35	45	39	34	44	38	34	33				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5100	5100	5100
5°	4942	5023	5090
10°	4697	4819	5014
15°	4384	4560	4875
20°	4049	4269	4593
25°	3683	3897	4280
30°	3300	3531	3993
35°	2874	3154	3688
40°	2426	2821	3315
45°	1926	2492	2899
50°	1659	2142	2406
55°	1509	1834	1847
60°	1377	1628	1568
65°	1262	1471	1384
70°	1171	1365	1235
75°	1084	1290	1084
80°	1020	1233	978
85°	1016	1270	847

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2899 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.5	5.7
10°-20°	67.5	15.0
20°-30°	88.8	19.7
30°-40°	89.3	19.8
40°-50°	72.3	16.1
50°-60°	49.8	11.1
60°-70°	32.6	7.2
70°-80°	18.2	4.0
80°-90°	6.1	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°	181.7	40.4
0°-40°	271.0	60.2
0°-60°	393.2	87.4
0°-90°	450.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	450.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	276	276	276	276	276	
5°	267	272	271	272	275	25
15°	230	235	239	248	255	64
25°	181	186	191	200	210	83
35°	128	134	140	152	164	80
45°	74	82	96	104	111	58
55°	47	52	57	58	57	42
65°	29	34	34	32	32	29
75°	15	19	18	16	15	16
85°	5	6	6	5	4	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	276.4	276.4	276.4	276.4	276.4
2.5°	272.8	277.6	274.8	274.8	275.2
5°	266.8	272.0	271.2	272.4	274.8
7.5°	259.2	264.8	264.8	268.4	271.6
10°	250.7	256.4	257.2	262.8	267.6
12.5°	240.3	245.9	248.3	255.6	262.0
15°	229.5	235.1	238.7	247.5	255.2
17.5°	217.8	223.5	228.3	237.5	245.1
20°	206.2	211.4	217.4	225.5	233.9
22.5°	193.4	199.0	204.6	212.2	221.9
25°	180.9	185.8	191.4	199.8	210.2
27.5°	167.7	172.9	178.1	188.2	199.0
30°	154.9	160.1	165.7	176.1	187.4
32.5°	141.2	146.8	152.5	164.1	175.7
35°	127.6	133.6	140.0	152.5	163.7
37.5°	114.3	120.8	128.4	141.2	150.8
40°	100.7	107.5	117.1	128.4	137.6
42.5°	86.3	94.7	106.3	115.9	124.4
45°	73.8	82.2	95.5	103.9	111.1
47.5°	64.6	71.4	84.3	91.5	97.5
50°	57.8	63.0	74.6	79.8	83.8
52.5°	52.2	57.4	65.4	69.0	70.2
55°	46.9	52.2	57.0	58.2	57.4
57.5°	41.7	47.3	50.1	48.9	48.9
60°	37.3	43.3	44.1	42.5	42.5
62.5°	32.9	38.9	38.9	36.9	36.9
65°	28.9	34.5	33.7	32.1	31.7
67.5°	25.3	30.5	29.3	27.7	27.3
70°	21.7	26.5	25.3	23.3	22.9
72.5°	18.5	22.9	21.3	19.7	18.9
75°	15.2	18.9	18.1	16.0	15.2
77.5°	12.4	15.2	14.4	12.8	12.0
80°	9.6	12.0	11.6	10.0	9.2
82.5°	7.2	9.2	8.8	7.6	6.4
85°	4.8	6.4	6.0	5.2	4.0
87.5°	2.4	4.4	4.0	3.6	2.0
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	12.39	13.83	12.75	14.14	14.45	12.74	14.18	13.11	14.50	14.81
	3H	13.93	15.22	14.31	15.55	15.91	14.09	15.38	14.47	15.71	16.08
	4H	14.51	15.71	14.91	16.06	16.44	14.58	15.78	14.98	16.13	16.51
	6H	14.93	16.05	15.35	16.42	16.81	14.93	16.04	15.34	16.41	16.80
	8H	15.09	16.15	15.51	16.54	16.94	15.04	16.10	15.47	16.49	16.90
	12H	15.20	16.21	15.63	16.60	17.03	15.12	16.13	15.55	16.52	16.95
4H	2H	12.97	14.18	13.37	14.53	14.91	13.26	14.47	13.66	14.82	15.20
	3H	14.80	15.80	15.21	16.20	16.60	14.84	15.84	15.25	16.24	16.64
	4H	15.55	16.45	15.98	16.87	17.31	15.44	16.34	15.87	16.76	17.20
	6H	16.13	16.91	16.59	17.36	17.82	15.92	16.70	16.38	17.15	17.61
	8H	16.34	17.07	16.80	17.52	17.98	16.08	16.81	16.55	17.26	17.73
	12H	16.51	17.16	16.99	17.64	18.11	16.20	16.85	16.69	17.33	17.81
8H	4H	15.83	16.56	16.30	17.01	17.48	15.74	16.47	16.21	16.92	17.39
	6H	16.58	17.19	17.08	17.68	18.16	16.36	16.96	16.85	17.45	17.93
	8H	16.91	17.45	17.42	17.96	18.45	16.60	17.15	17.12	17.66	18.15
	12H	17.19	17.67	17.70	18.16	18.73	16.81	17.29	17.32	17.79	18.35
12H	4H	15.85	16.50	16.33	16.98	17.45	15.78	16.43	16.26	16.91	17.38
	6H	16.64	17.19	17.16	17.70	18.19	16.43	16.97	16.95	17.49	17.98
	8H	17.04	17.52	17.55	18.01	18.58	16.75	17.23	17.26	17.72	18.29