

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: P1058336

Luminaire Tested: S122RDR-H290D935-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058336
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-H290D935-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: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

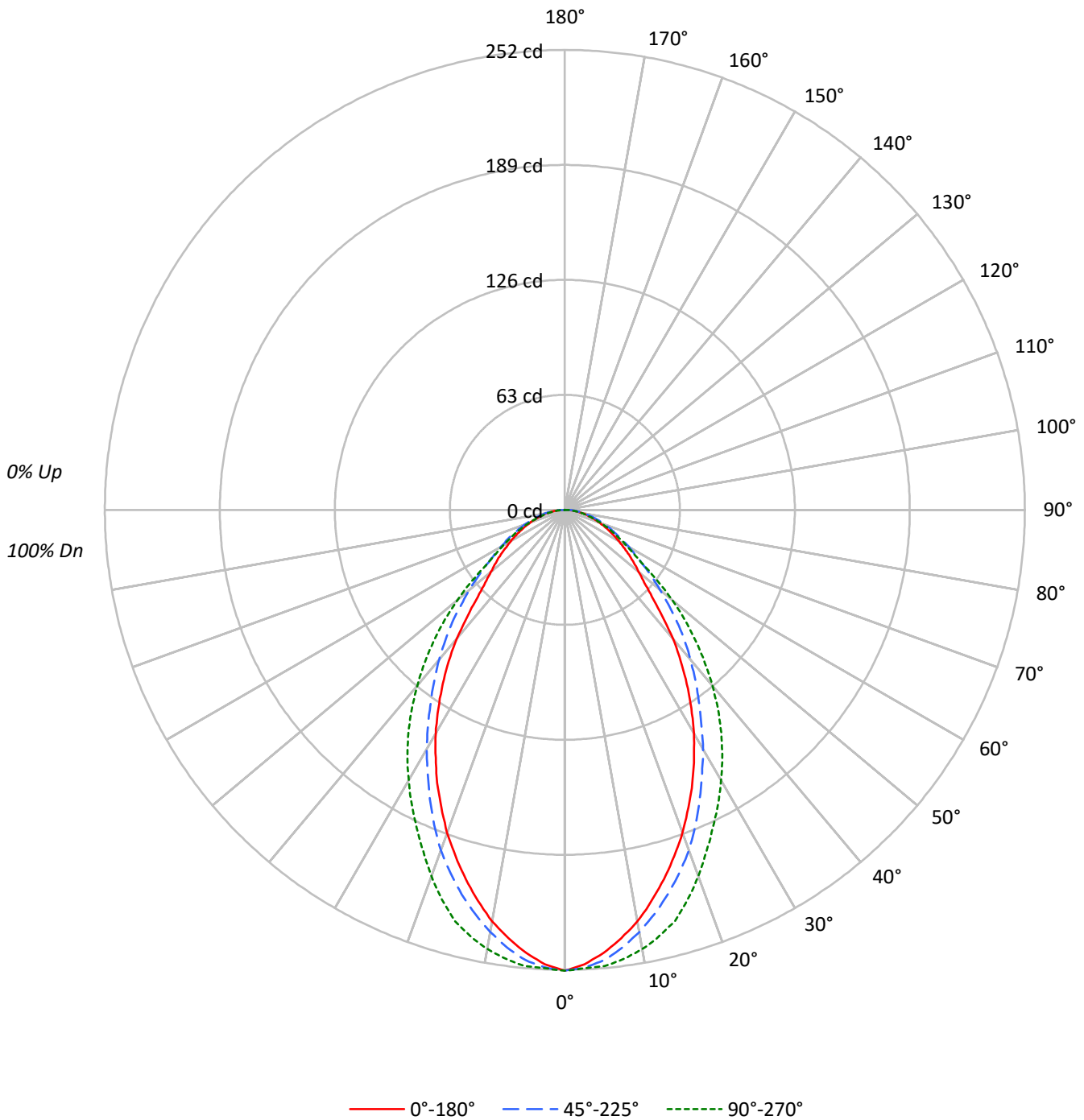
Lumens per Lamp: N/A
Luminaire Lumens: 411.2 lumens
Efficiency: N/A
Efficacy: 35.1 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	86	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°	4659	4659	4659
5°	4514	4588	4649
10°	4293	4401	4579
15°	4004	4166	4453
20°	3700	3900	4196
25°	3366	3559	3909
30°	3015	3226	3646
35°	2624	2881	3368
40°	2216	2577	3028
45°	1759	2276	2649
50°	1516	1958	2199
55°	1380	1673	1686
60°	1258	1487	1432
65°	1153	1345	1266
70°	1068	1246	1128
75°	991	1176	991
80°	935	1126	893
85°	932	1164	783

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2649 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.3	5.7
10°-20°	61.6	15.0
20°-30°	81.1	19.7
30°-40°	81.5	19.8
40°-50°	66.1	16.1
50°-60°	45.5	11.1
60°-70°	29.8	7.2
70°-80°	16.6	4.0
80°-90°	5.6	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°	166.0	40.4
0°-40°	247.6	60.2
0°-60°	359.1	87.3
0°-90°	411.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	411.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	252	252	252	252	252	
5°	244	248	248	249	251	23
15°	210	215	218	226	233	59
25°	165	170	175	182	192	76
35°	116	122	128	139	150	73
45°	67	75	87	95	102	53
55°	43	48	52	53	52	38
65°	26	32	31	29	29	26
75°	14	17	16	15	14	15
85°	4	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°	252.5	252.5	252.5	252.5	252.5
2.5°	249.2	253.6	251.0	251.0	251.4
5°	243.7	248.5	247.7	248.8	251.0
7.5°	236.7	241.9	241.9	245.2	248.1
10°	229.1	234.2	234.9	240.0	244.4
12.5°	219.5	224.7	226.9	233.4	239.3
15°	209.6	214.8	218.1	226.1	233.1
17.5°	199.0	204.1	208.5	217.0	223.9
20°	188.4	193.1	198.6	206.0	213.7
22.5°	176.6	181.8	186.9	193.9	202.7
25°	165.3	169.7	174.8	182.5	192.0
27.5°	153.2	158.0	162.7	171.9	181.8
30°	141.5	146.2	151.4	160.9	171.1
32.5°	129.0	134.1	139.3	149.9	160.5
35°	116.5	122.0	127.9	139.3	149.5
37.5°	104.4	110.3	117.3	129.0	137.8
40°	92.0	98.2	107.0	117.3	125.7
42.5°	78.8	86.5	97.1	105.9	113.6
45°	67.4	75.1	87.2	94.9	101.5
47.5°	59.0	65.2	77.0	83.6	89.1
50°	52.8	57.5	68.2	72.9	76.6
52.5°	47.6	52.4	59.7	63.0	64.1
55°	42.9	47.6	52.0	53.1	52.4
57.5°	38.1	43.2	45.8	44.7	44.7
60°	34.1	39.6	40.3	38.8	38.8
62.5°	30.1	35.5	35.5	33.7	33.7
65°	26.4	31.5	30.8	29.3	29.0
67.5°	23.1	27.9	26.8	25.3	24.9
70°	19.8	24.2	23.1	21.3	20.9
72.5°	16.9	20.9	19.4	18.0	17.2
75°	13.9	17.2	16.5	14.7	13.9
77.5°	11.4	13.9	13.2	11.7	11.0
80°	8.8	11.0	10.6	9.2	8.4
82.5°	6.6	8.4	8.1	7.0	5.9
85°	4.4	5.9	5.5	4.8	3.7
87.5°	2.2	4.0	3.7	3.3	1.8
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	12.07	13.51	12.44	13.82	14.14	12.43	13.87	12.80	14.19	14.50
	3H	13.62	14.91	14.00	15.24	15.60	13.78	15.07	14.16	15.40	15.76
	4H	14.19	15.40	14.59	15.75	16.13	14.26	15.47	14.66	15.82	16.20
	6H	14.62	15.74	15.04	16.10	16.50	14.62	15.73	15.03	16.10	16.49
	8H	14.78	15.84	15.20	16.23	16.63	14.73	15.79	15.16	16.18	16.59
	12H	14.89	15.91	15.32	16.29	16.72	14.81	15.83	15.24	16.21	16.64
4H	2H	12.66	13.87	13.06	14.22	14.60	12.95	14.16	13.35	14.51	14.89
	3H	14.48	15.48	14.89	15.89	16.29	14.52	15.53	14.94	15.93	16.33
	4H	15.23	16.13	15.66	16.55	16.99	15.13	16.03	15.56	16.45	16.89
	6H	15.82	16.60	16.28	17.04	17.51	15.61	16.39	16.07	16.84	17.30
	8H	16.03	16.76	16.49	17.20	17.67	15.78	16.51	16.24	16.95	17.42
	12H	16.20	16.85	16.68	17.33	17.80	15.90	16.55	16.38	17.03	17.50
8H	4H	15.51	16.25	15.98	16.69	17.16	15.43	16.16	15.89	16.61	17.08
	6H	16.27	16.88	16.77	17.37	17.85	16.05	16.65	16.55	17.14	17.62
	8H	16.59	17.14	17.11	17.65	18.14	16.30	16.84	16.82	17.35	17.84
	12H	16.88	17.36	17.39	17.85	18.42	16.51	16.99	17.02	17.49	18.05
12H	4H	15.53	16.19	16.02	16.67	17.14	15.46	16.12	15.95	16.60	17.07
	6H	16.33	16.87	16.85	17.39	17.88	16.12	16.67	16.64	17.18	17.67
	8H	16.73	17.21	17.24	17.70	18.27	16.45	16.93	16.96	17.42	17.99