

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: P1058345

Luminaire Tested: S122RDR-H290D940-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058345
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-H290D940-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: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

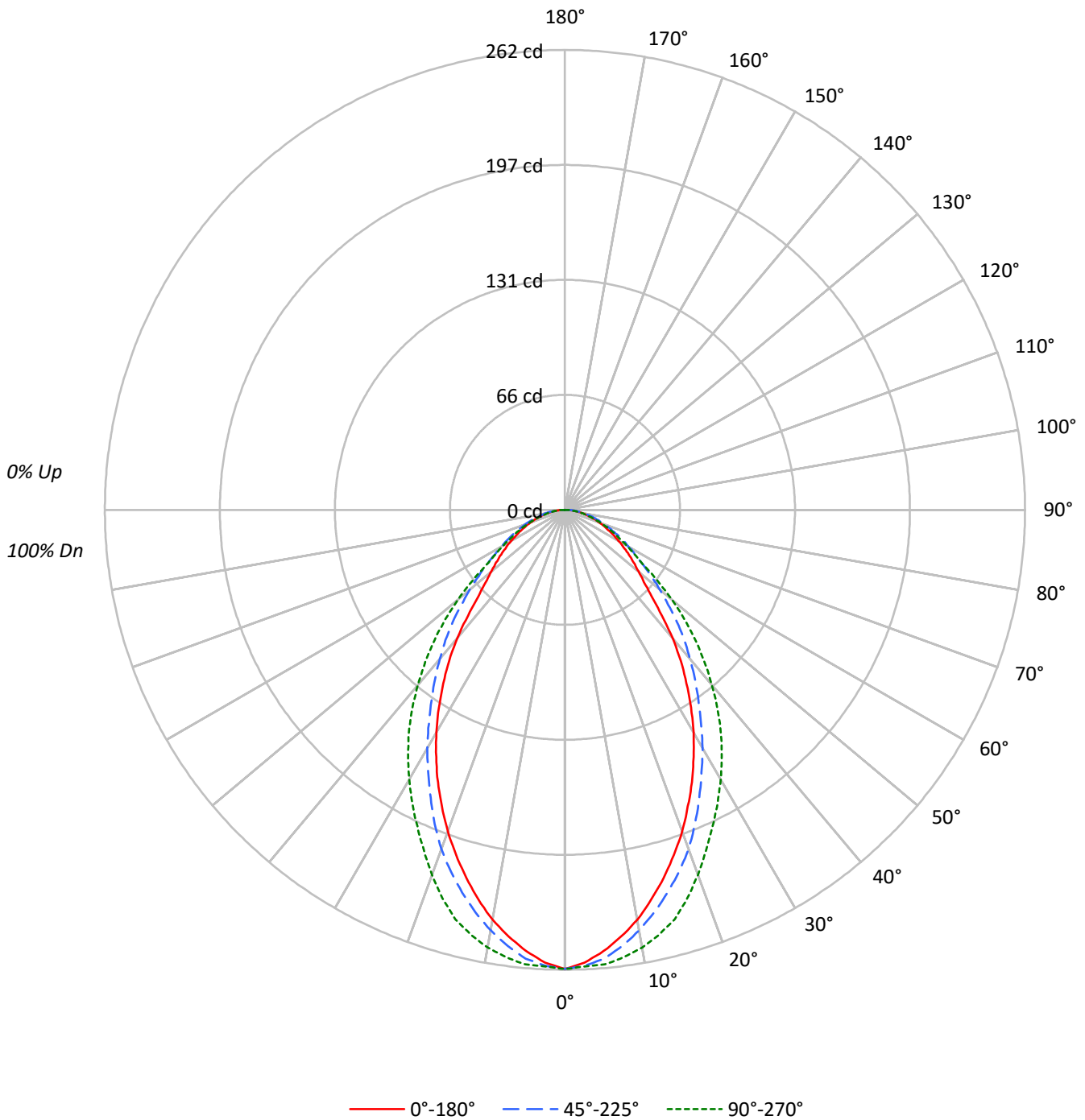
Lumens per Lamp: N/A
Luminaire Lumens: 425.8 lumens
Efficiency: N/A
Efficacy: 36.4 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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°	4825	4825	4825
5°	4675	4753	4816
10°	4444	4559	4744
15°	4147	4314	4612
20°	3831	4039	4346
25°	3486	3685	4050
30°	3121	3341	3778
35°	2719	2985	3489
40°	2296	2669	3136
45°	1821	2356	2743
50°	1570	2027	2276
55°	1428	1734	1747
60°	1303	1543	1484
65°	1192	1393	1310
70°	1106	1289	1165
75°	1027	1219	1027
80°	967	1169	924
85°	974	1207	805

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2743 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	24.1	5.7
10°-20°	63.8	15.0
20°-30°	84.0	19.7
30°-40°	84.4	19.8
40°-50°	68.4	16.1
50°-60°	47.1	11.1
60°-70°	30.8	7.2
70°-80°	17.2	4.0
80°-90°	5.8	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°	171.9	40.4
0°-40°	256.4	60.2
0°-60°	372.0	87.4
0°-90°	425.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	425.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	262	262	262	262	262	
5°	252	257	257	258	260	24
15°	217	222	226	234	241	61
25°	171	176	181	189	199	78
35°	121	126	132	144	155	75
45°	70	78	90	98	105	55
55°	44	49	54	55	54	40
65°	27	33	32	30	30	27
75°	14	18	17	15	14	15
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°	261.5	261.5	261.5	261.5	261.5
2.5°	258.1	262.7	260.0	260.0	260.4
5°	252.4	257.3	256.6	257.7	260.0
7.5°	245.2	250.5	250.5	253.9	257.0
10°	237.2	242.5	243.3	248.6	253.2
12.5°	227.4	232.7	234.9	241.8	247.8
15°	217.1	222.4	225.8	234.2	241.4
17.5°	206.1	211.4	216.0	224.7	231.9
20°	195.1	200.0	205.7	213.3	221.3
22.5°	182.9	188.3	193.6	200.8	209.9
25°	171.2	175.7	181.0	189.0	198.9
27.5°	158.7	163.6	168.5	178.0	188.3
30°	146.5	151.4	156.8	166.6	177.3
32.5°	133.6	138.9	144.2	155.2	166.2
35°	120.7	126.4	132.5	144.2	154.9
37.5°	108.2	114.2	121.5	133.6	142.7
40°	95.3	101.7	110.8	121.5	130.2
42.5°	81.6	89.6	100.6	109.7	117.7
45°	69.8	77.8	90.3	98.3	105.1
47.5°	61.1	67.6	79.7	86.5	92.2
50°	54.7	59.6	70.6	75.5	79.3
52.5°	49.3	54.3	61.9	65.3	66.4
55°	44.4	49.3	53.9	55.0	54.3
57.5°	39.5	44.8	47.4	46.3	46.3
60°	35.3	41.0	41.8	40.2	40.2
62.5°	31.1	36.8	36.8	34.9	34.9
65°	27.3	32.6	31.9	30.4	30.0
67.5°	23.9	28.8	27.7	26.2	25.8
70°	20.5	25.1	23.9	22.0	21.6
72.5°	17.5	21.6	20.1	18.6	17.8
75°	14.4	17.8	17.1	15.2	14.4
77.5°	11.8	14.4	13.7	12.1	11.4
80°	9.1	11.4	11.0	9.5	8.7
82.5°	6.8	8.7	8.4	7.2	6.1
85°	4.6	6.1	5.7	4.9	3.8
87.5°	2.3	4.2	3.8	3.4	1.9
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	12.20	13.64	12.57	13.95	14.27	12.56	14.00	12.92	14.31	14.62
	3H	13.74	15.03	14.12	15.36	15.72	13.90	15.19	14.28	15.52	15.88
	4H	14.31	15.52	14.71	15.87	16.25	14.38	15.59	14.78	15.94	16.32
	6H	14.74	15.86	15.16	16.23	16.62	14.74	15.85	15.15	16.22	16.61
	8H	14.90	15.96	15.32	16.35	16.75	14.85	15.91	15.28	16.30	16.71
	12H	15.01	16.03	15.44	16.41	16.84	14.93	15.94	15.36	16.33	16.76
4H	2H	12.79	13.99	13.19	14.34	14.72	13.07	14.28	13.47	14.63	15.01
	3H	14.61	15.61	15.02	16.01	16.41	14.64	15.64	15.06	16.05	16.45
	4H	15.35	16.25	15.79	16.67	17.11	15.25	16.15	15.68	16.57	17.01
	6H	15.94	16.72	16.40	17.17	17.63	15.73	16.51	16.19	16.96	17.42
	8H	16.15	16.88	16.61	17.32	17.79	15.89	16.62	16.36	17.07	17.54
	12H	16.32	16.97	16.80	17.45	17.92	16.01	16.67	16.50	17.15	17.62
8H	4H	15.64	16.37	16.10	16.81	17.28	15.55	16.28	16.01	16.73	17.19
	6H	16.39	17.00	16.89	17.49	17.97	16.17	16.77	16.66	17.26	17.74
	8H	16.72	17.26	17.23	17.77	18.26	16.42	16.96	16.93	17.47	17.96
	12H	17.00	17.48	17.51	17.98	18.54	16.63	17.11	17.14	17.60	18.17
12H	4H	15.66	16.31	16.14	16.79	17.26	15.58	16.24	16.07	16.72	17.19
	6H	16.45	17.00	16.97	17.51	18.00	16.24	16.79	16.76	17.30	17.79
	8H	16.85	17.33	17.36	17.82	18.39	16.56	17.04	17.07	17.54	18.10