

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: P1060728

Luminaire Tested: S124RDR-H1195D840-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060728
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-74)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H1195D840-X4F0-XX-UDD-SVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

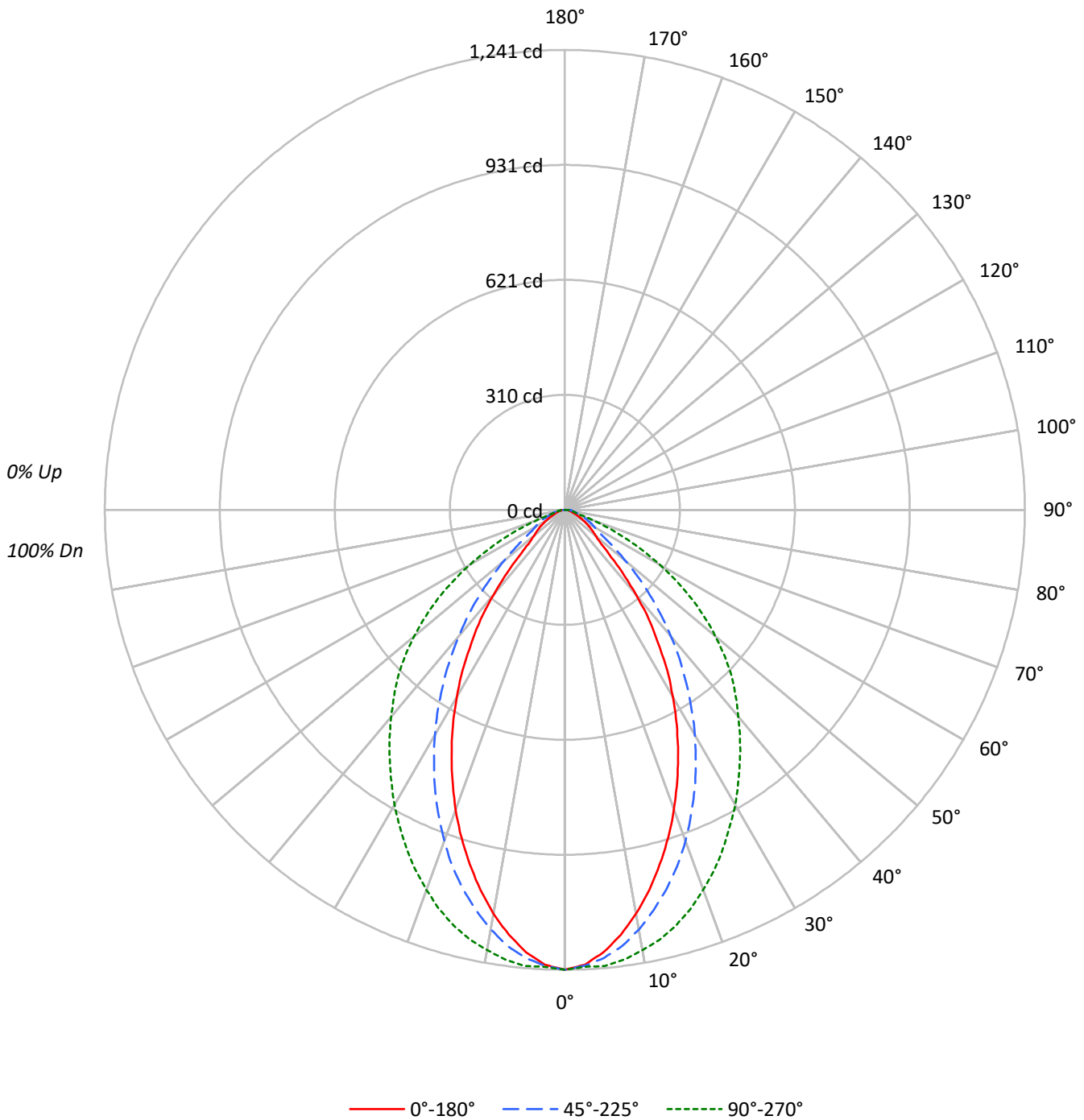
Lumens per Lamp: N/A
Luminaire Lumens: 1756.4 lumens
Efficiency: N/A
Efficacy: 48.1 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.5
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	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89			89	
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79			79	
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70			70	
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63			63	
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57			57	
6	79	67	60	54	77	67	59	54	65	59	54	63	58	53	62	57	53	51			51	
7	74	62	55	49	72	61	54	49	60	54	49	59	53	49	57	52	48	47			47	
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43			43	
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39			39	
10	62	50	43	38	60	49	43	38	49	42	38	48	42	38	47	42	38	36			36	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10686	10686	10686
5°	10356	10488	10680
10°	9675	10051	10548
15°	8826	9444	10347
20°	7891	8717	10000
25°	6864	7879	9591
30°	5791	6976	9141
35°	4606	6006	8658
40°	3351	5003	8183
45°	2026	3952	7750
50°	1450	2860	7096
55°	1228	1937	6266
60°	1002	1576	5063
65°	791	1412	3645
70°	662	1186	1921
75°	599	1108	968
80°	620	1101	962
85°	820	1640	1097

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7750 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.2	6.5
10°-20°	299.4	17.0
20°-30°	388.3	22.1
30°-40°	373.8	21.3
40°-50°	278.1	15.8
50°-60°	171.0	9.7
60°-70°	84.0	4.8
70°-80°	32.8	1.9
80°-90°	14.9	0.9
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°	801.9	45.7
0°-40°	1175.7	66.9
0°-60°	1624.8	92.5
0°-90°	1756.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1756.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1241	1241	1241	1241	1241	
5°	1198	1216	1213	1224	1236	111
15°	990	1022	1059	1123	1161	277
25°	722	761	829	933	1009	331
35°	438	480	571	714	824	274
45°	166	207	324	501	636	138
55°	82	85	129	294	417	74
65°	39	42	69	111	179	40
75°	18	32	33	30	29	20
85°	8	15	17	17	11	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1241.0	1241.0	1241.0	1241.0	1241.0
2.5°	1228.5	1242.4	1231.3	1232.7	1234.1
5°	1198.0	1216.0	1213.3	1224.4	1235.5
7.5°	1156.4	1177.2	1186.9	1209.1	1224.4
10°	1106.5	1130.1	1149.5	1185.5	1206.3
12.5°	1051.0	1078.8	1106.5	1155.0	1186.9
15°	990.0	1021.9	1059.4	1123.1	1160.6
17.5°	927.6	959.5	1008.1	1081.5	1128.7
20°	861.1	895.7	951.2	1033.0	1091.2
22.5°	791.7	829.2	890.2	983.1	1052.4
25°	722.4	761.2	829.2	933.2	1009.4
27.5°	653.1	690.5	764.0	880.5	963.7
30°	582.4	621.2	701.6	823.6	919.3
32.5°	514.4	550.5	636.4	769.6	870.8
35°	438.2	479.8	571.3	714.1	823.6
37.5°	373.0	410.4	508.9	658.6	776.5
40°	298.1	339.7	445.1	604.6	728.0
42.5°	228.8	270.4	384.1	550.5	682.2
45°	166.4	206.6	324.5	500.6	636.4
47.5°	126.2	149.8	266.2	452.0	585.1
50°	108.2	115.1	213.5	399.3	529.7
52.5°	95.7	98.4	166.4	346.6	474.2
55°	81.8	84.6	129.0	294.0	417.4
57.5°	69.3	70.7	104.0	244.0	356.4
60°	58.2	59.6	91.5	195.5	294.0
62.5°	48.5	49.9	81.8	151.1	234.3
65°	38.8	41.6	69.3	110.9	178.9
67.5°	31.9	37.4	58.2	77.6	124.8
70°	26.3	36.1	47.1	54.1	76.3
72.5°	22.2	33.3	40.2	38.8	37.4
75°	18.0	31.9	33.3	30.5	29.1
77.5°	15.3	27.7	27.7	25.0	23.6
80°	12.5	22.2	22.2	22.2	19.4
82.5°	11.1	18.0	19.4	19.4	15.3
85°	8.3	15.3	16.6	16.6	11.1
87.5°	5.5	13.9	15.3	13.9	8.3
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	8.01	9.36	8.38	9.67	9.98	17.18	18.52	17.55	18.84	19.15
	3H	9.12	10.32	9.50	10.65	11.01	17.69	18.88	18.07	19.21	19.57
	4H	9.64	10.75	10.04	11.10	11.49	17.71	18.82	18.11	19.17	19.55
	6H	10.08	11.10	10.49	11.47	11.86	17.72	18.74	18.14	19.11	19.50
	8H	10.27	11.24	10.70	11.63	12.03	17.72	18.69	18.15	19.08	19.49
	12H	10.45	11.37	10.88	11.76	12.19	17.73	18.65	18.16	19.03	19.46
4H	2H	9.16	10.27	9.56	10.62	11.00	17.07	18.19	17.48	18.54	18.92
	3H	10.50	11.41	10.91	11.81	12.22	17.66	18.57	18.08	18.98	19.38
	4H	11.23	12.05	11.67	12.47	12.91	17.72	18.54	18.16	18.95	19.40
	6H	11.84	12.55	12.31	12.99	13.46	17.80	18.50	18.26	18.95	19.41
	8H	12.09	12.74	12.56	13.19	13.66	17.83	18.49	18.30	18.93	19.40
	12H	12.32	12.90	12.81	13.39	13.86	17.87	18.45	18.36	18.93	19.41
8H	4H	11.70	12.36	12.17	12.80	13.28	17.68	18.34	18.15	18.78	19.25
	6H	12.55	13.09	13.05	13.59	14.07	17.81	18.35	18.31	18.84	19.32
	8H	12.96	13.44	13.48	13.96	14.45	17.89	18.38	18.41	18.89	19.38
	12H	13.38	13.81	13.90	14.30	14.87	18.01	18.44	18.53	18.93	19.51
12H	4H	11.76	12.34	12.24	12.82	13.29	17.65	18.23	18.14	18.72	19.19
	6H	12.68	13.17	13.20	13.68	14.17	17.79	18.27	18.31	18.79	19.28
	8H	13.21	13.63	13.72	14.13	14.70	17.92	18.35	18.44	18.85	19.42