

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: P1060712

Luminaire Tested: S124RDR-H1195D830-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060712
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-76)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H1195D830-X4F0-XX-UDD-WVL-S
Description: DEFINE 4 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

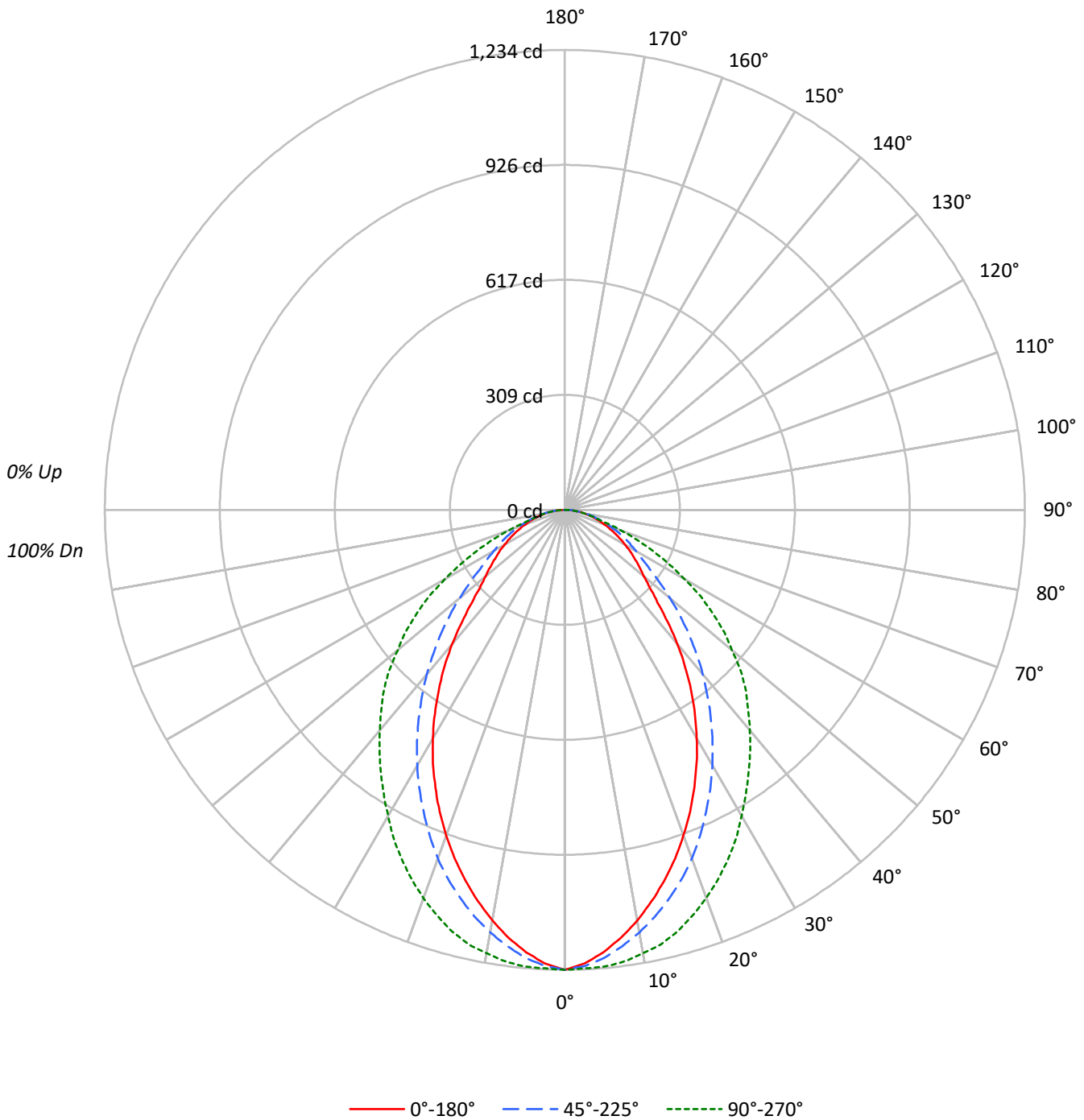
Lumens per Lamp: N/A
Luminaire Lumens: 2246.5 lumens
Efficiency: N/A
Efficacy: 61.5 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.1
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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									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	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	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87																												
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75																												
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65																												
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57																												
5	80	69	60	54	78	68	60	54	65	59	54	64	58	53	62	57	52	50																												
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47	45																												
7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42	41																												
8	65	53	45	39	64	52	44	39	51	44	39	50	43	39	48	43	39	37																												
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	34																												
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32	31																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10626	10626	10626
5°	10298	10432	10633
10°	9784	10066	10564
15°	9179	9629	10436
20°	8522	9127	10158
25°	7804	8505	9832
30°	7035	7871	9427
35°	6200	7180	9043
40°	5278	6470	8680
45°	4284	5718	8364
50°	3708	4922	7833
55°	3436	4175	7263
60°	3209	3765	6371
65°	3005	3531	5298
70°	2800	3255	4006
75°	2668	3011	2885
80°	2499	2757	2440
85°	2302	2559	1917

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 8364 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	113.9	5.1
10°-20°	306.2	13.6
20°-30°	418.1	18.6
30°-40°	438.1	19.5
40°-50°	379.2	16.9
50°-60°	284.9	12.7
60°-70°	183.7	8.2
70°-80°	94.2	4.2
80°-90°	28.1	1.3
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°	838.3	37.3
0°-40°	1276.4	56.8
0°-60°	1940.5	86.4
0°-90°	2246.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2246.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1234	1234	1234	1234	1234	
5°	1191	1209	1207	1216	1230	111
15°	1030	1056	1080	1129	1171	289
25°	821	852	895	965	1035	377
35°	590	624	683	774	860	367
45°	352	388	470	585	687	277
55°	229	237	278	397	484	206
65°	148	150	173	210	260	147
75°	80	89	90	89	87	85
85°	23	27	26	25	19	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1234.0	1234.0	1234.0	1234.0	1234.0
2.5°	1218.5	1234.0	1224.9	1227.5	1231.4
5°	1191.3	1209.4	1206.8	1215.9	1230.1
7.5°	1157.7	1177.1	1181.0	1201.7	1222.3
10°	1118.9	1140.9	1151.2	1182.2	1208.1
12.5°	1076.2	1099.5	1117.6	1156.4	1193.9
15°	1029.6	1055.5	1080.1	1129.2	1170.6
17.5°	981.8	1007.6	1040.0	1094.3	1140.9
20°	930.0	958.5	996.0	1052.9	1108.5
22.5°	877.0	906.7	946.8	1008.9	1073.6
25°	821.4	852.4	895.1	964.9	1034.8
27.5°	765.7	796.8	844.6	918.4	994.7
30°	707.5	739.9	791.6	871.8	948.1
32.5°	649.3	684.3	737.3	822.7	904.1
35°	589.8	623.5	683.0	773.5	860.2
37.5°	530.3	565.3	628.6	725.6	816.2
40°	469.5	505.8	575.6	677.8	772.2
42.5°	408.7	447.5	521.3	628.6	728.2
45°	351.8	388.0	469.5	584.7	686.8
47.5°	309.1	333.7	417.8	542.0	640.3
50°	276.8	289.7	367.4	495.4	584.7
52.5°	252.2	261.3	320.8	445.0	539.4
55°	228.9	236.7	278.1	397.1	483.8
57.5°	208.3	212.1	245.8	350.5	430.7
60°	186.3	190.1	218.6	300.1	369.9
62.5°	166.9	169.4	196.6	252.2	314.3
65°	147.5	150.0	173.3	209.5	260.0
67.5°	129.3	133.2	151.3	170.7	207.0
70°	111.2	119.0	129.3	138.4	159.1
72.5°	95.7	103.5	108.7	111.2	112.5
75°	80.2	89.3	90.5	89.3	86.7
77.5°	64.7	72.4	72.4	69.8	67.3
80°	50.4	56.9	55.6	53.0	49.2
82.5°	37.5	41.4	40.1	37.5	33.6
85°	23.3	27.2	25.9	24.6	19.4
87.5°	11.6	15.5	14.2	12.9	7.8
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	14.64	16.13	15.01	16.44	16.75	18.42	19.90	18.78	20.21	20.53
	3H	16.30	17.63	16.68	17.95	18.32	19.53	20.86	19.91	21.19	21.55
	4H	16.97	18.21	17.37	18.56	18.94	19.82	21.07	20.22	21.42	21.79
	6H	17.48	18.63	17.89	19.00	19.39	20.02	21.17	20.43	21.53	21.93
	8H	17.66	18.76	18.09	19.15	19.55	20.07	21.17	20.50	21.56	21.96
	12H	17.79	18.84	18.22	19.22	19.65	20.10	21.14	20.53	21.53	21.96
4H	2H	15.43	16.67	15.83	17.02	17.40	18.57	19.82	18.97	20.17	20.55
	3H	17.29	18.32	17.70	18.72	19.12	19.89	20.92	20.30	21.32	21.72
	4H	18.10	19.03	18.53	19.44	19.88	20.30	21.22	20.73	21.64	22.08
	6H	18.74	19.55	19.20	19.99	20.45	20.61	21.42	21.07	21.86	22.32
	8H	18.97	19.73	19.44	20.17	20.64	20.70	21.46	21.17	21.90	22.37
	12H	19.14	19.82	19.62	20.29	20.77	20.77	21.44	21.25	21.92	22.39
8H	4H	18.45	19.20	18.91	19.64	20.11	20.43	21.18	20.89	21.63	22.10
	6H	19.24	19.86	19.74	20.35	20.83	20.84	21.46	21.34	21.96	22.43
	8H	19.56	20.12	20.07	20.63	21.12	20.99	21.55	21.51	22.06	22.55
	12H	19.82	20.32	20.33	20.81	21.38	21.11	21.61	21.63	22.10	22.67
12H	4H	18.47	19.15	18.96	19.63	20.10	20.43	21.11	20.92	21.59	22.06
	6H	19.30	19.86	19.81	20.37	20.86	20.86	21.42	21.38	21.93	22.42
	8H	19.69	20.18	20.20	20.67	21.24	21.06	21.56	21.57	22.05	22.62