

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: P1060707

Luminaire Tested: S124RDR-H1195D830-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060707
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-75)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H1195D830-X4F0-XX-UDD-BVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

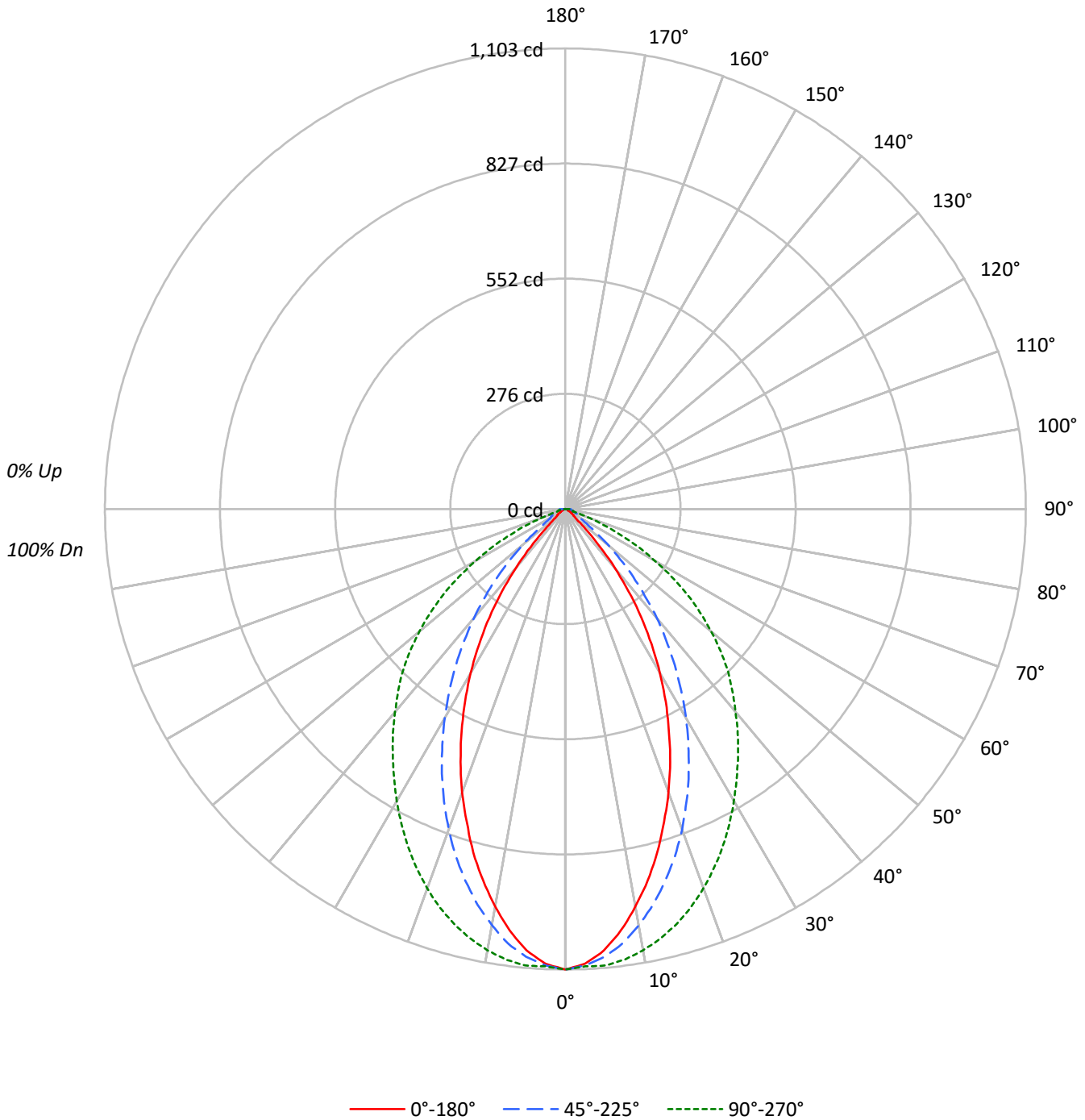
Lumens per Lamp: N/A
Luminaire Lumens: 1389.9 lumens
Efficiency: N/A
Efficacy: 38.1 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.96
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90				90
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81				81
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72				72
4	91	82	75	70	89	81	75	70	79	73	69	76	72	68	74	70	67	65				65
5	86	75	68	63	84	74	68	63	72	67	62	71	66	62	69	65	61	59				59
6	80	70	62	57	79	69	62	57	67	61	56	66	60	56	64	59	56	54				54
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49				49
8	71	60	53	48	70	59	52	48	58	52	48	57	51	47	56	51	47	45				45
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42				42
10	63	52	45	41	62	52	45	41	51	45	41	50	44	41	49	44	40	39				39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9497	9497	9497
5°	9176	9310	9489
10°	8455	8852	9383
15°	7594	8228	9174
20°	6619	7485	8861
25°	5584	6641	8474
30°	4505	5740	8031
35°	3333	4803	7579
40°	2066	3826	7130
45°	820	2790	6715
50°	364	1751	6103
55°	291	913	5345
60°	202	691	4257
65°	132	687	2928
70°	131	619	1370
75°	173	602	602
80°	258	704	704
85°	514	1403	1028

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6715 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.2	7.3
10°-20°	261.1	18.8
20°-30°	329.6	23.7
30°-40°	302.4	21.8
40°-50°	205.9	14.8
50°-60°	112.2	8.1
60°-70°	48.6	3.5
70°-80°	17.7	1.3
80°-90°	11.4	0.8
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°	691.8	49.8
0°-40°	994.2	71.5
0°-60°	1312.3	94.4
0°-90°	1389.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1389.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1103	1103	1103	1103	1103	
5°	1062	1076	1077	1089	1098	98
15°	852	882	923	989	1029	237
25°	588	629	699	810	892	269
35°	317	364	457	602	721	196
45°	67	113	229	406	551	63
55°	19	21	61	224	356	17
65°	6	9	34	70	144	8
75°	5	17	18	18	18	6
85°	5	12	14	14	10	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1102.9	1102.9	1102.9	1102.9	1102.9
2.5°	1089.9	1102.9	1093.8	1096.4	1096.4
5°	1061.5	1075.7	1077.0	1088.6	1097.7
7.5°	1018.7	1039.4	1049.8	1073.1	1088.6
10°	967.0	991.6	1012.3	1052.4	1073.1
12.5°	911.3	939.8	970.8	1023.9	1053.7
15°	851.8	881.5	922.9	989.0	1029.1
17.5°	785.7	822.0	872.5	951.4	1000.6
20°	722.3	758.5	816.8	906.1	967.0
22.5°	656.3	693.8	758.5	858.2	930.7
25°	587.7	629.1	699.0	810.3	891.9
27.5°	520.4	564.4	638.2	759.8	850.5
30°	453.1	497.1	577.3	708.1	807.7
32.5°	384.5	429.8	516.5	653.7	763.7
35°	317.1	363.7	456.9	601.9	721.0
37.5°	248.5	297.7	397.4	551.4	678.3
40°	183.8	233.0	340.4	501.0	634.3
42.5°	123.0	172.2	282.2	451.8	592.9
45°	67.3	112.6	229.1	406.5	551.4
47.5°	36.2	62.1	177.3	362.4	504.8
50°	27.2	33.7	130.7	315.8	455.6
52.5°	23.3	25.9	90.6	266.7	406.5
55°	19.4	20.7	60.8	223.9	356.0
57.5°	15.5	16.8	45.3	181.2	301.6
60°	11.7	14.2	40.1	139.8	247.2
62.5°	9.1	11.7	37.5	102.3	195.5
65°	6.5	9.1	33.7	69.9	143.7
67.5°	6.5	10.4	28.5	45.3	97.1
70°	5.2	14.2	24.6	29.8	54.4
72.5°	5.2	15.5	20.7	20.7	20.7
75°	5.2	16.8	18.1	18.1	18.1
77.5°	5.2	15.5	16.8	15.5	15.5
80°	5.2	14.2	14.2	14.2	14.2
82.5°	5.2	12.9	14.2	14.2	11.7
85°	5.2	11.7	14.2	14.2	10.4
87.5°	3.9	11.7	12.9	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	0.00	0.12	0.00	0.43	0.75	16.23	17.51	16.59	17.82	18.14
	3H	0.28	1.41	0.66	1.74	2.11	16.61	17.74	16.99	18.07	18.43
	4H	1.50	2.56	1.91	2.91	3.29	16.58	17.64	16.99	17.99	18.37
	6H	2.69	3.65	3.10	4.02	4.42	16.57	17.54	16.99	17.91	18.30
	8H	3.28	4.19	3.71	4.59	4.99	16.57	17.49	17.00	17.88	18.28
	12H	3.95	4.83	4.39	5.21	5.64	16.58	17.46	17.02	17.84	18.27
4H	2H	2.48	3.53	2.88	3.88	4.26	16.04	17.09	16.44	17.44	17.83
	3H	4.06	4.92	4.47	5.32	5.73	16.46	17.32	16.87	17.72	18.13
	4H	5.35	6.12	5.78	6.54	6.98	16.46	17.23	16.89	17.65	18.09
	6H	6.48	7.14	6.94	7.59	8.05	16.50	17.16	16.96	17.61	18.07
	8H	6.99	7.60	7.46	8.05	8.52	16.52	17.14	16.99	17.59	18.06
	12H	7.54	8.09	8.03	8.57	9.04	16.59	17.14	17.08	17.62	18.09
8H	4H	6.43	7.05	6.90	7.50	7.97	16.37	16.99	16.84	17.43	17.90
	6H	7.97	8.48	8.48	8.97	9.46	16.45	16.95	16.95	17.45	17.93
	8H	8.78	9.23	9.30	9.75	10.24	16.53	16.98	17.05	17.50	17.99
	12H	9.62	10.02	10.13	10.51	11.09	16.70	17.10	17.21	17.60	18.17
12H	4H	6.62	7.17	7.11	7.65	8.12	16.33	16.88	16.82	17.36	17.83
	6H	8.33	8.78	8.85	9.30	9.79	16.42	16.87	16.94	17.39	17.88
	8H	9.34	9.74	9.85	10.23	10.81	16.56	16.96	17.07	17.45	18.02