

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: P1060905

Luminaire Tested: S124RDR-H575D927-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060905
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-H575D927-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: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

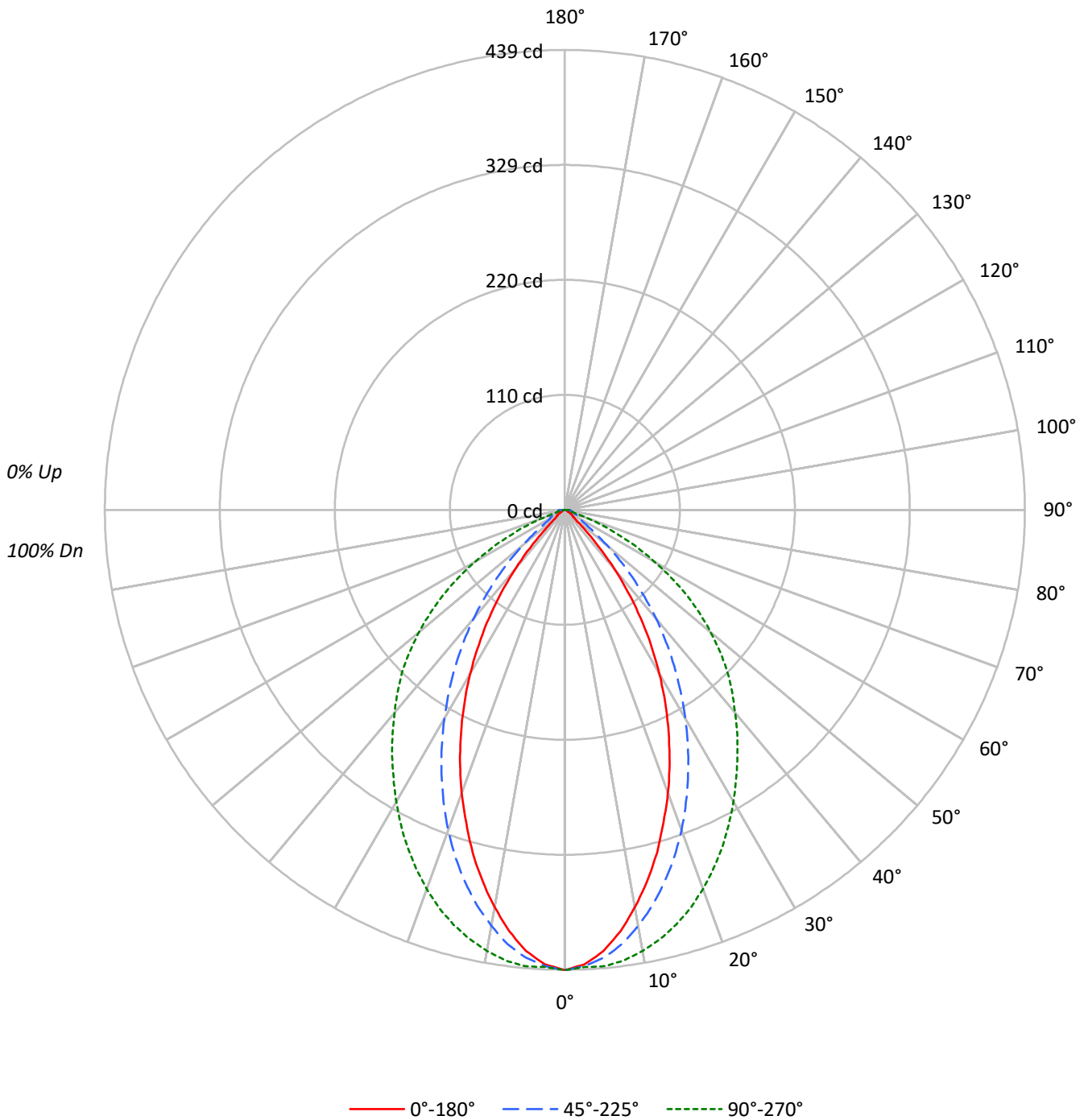
Lumens per Lamp: N/A
Luminaire Lumens: 553.7 lumens
Efficiency: N/A
Efficacy: 31.8 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.96
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.4
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	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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90																																				
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81																																				
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72																																				
4	91	82	75	70	89	81	75	70	79	73	69	76	72	68	74	70	67	65																																				
5	86	75	68	63	84	74	68	63	72	67	62	71	66	62	69	65	61	59																																				
6	80	70	62	57	79	69	62	57	67	61	56	66	60	56	64	59	56	54																																				
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49																																				
8	71	60	53	48	70	59	52	48	58	52	48	57	51	47	56	51	47	45																																				
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42																																				
10	63	52	45	41	62	52	45	41	51	45	41	50	44	41	49	44	40	39																																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3783	3783	3783
5°	3655	3708	3780
10°	3368	3526	3738
15°	3025	3278	3654
20°	2636	2982	3530
25°	2224	2645	3376
30°	1795	2287	3200
35°	1328	1913	3019
40°	823	1524	2841
45°	326	1112	2676
50°	145	698	2431
55°	116	363	2129
60°	79	276	1696
65°	53	273	1165
70°	53	247	546
75°	70	240	240
80°	104	283	283
85°	207	563	405

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2676 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.3	7.3
10°-20°	104.0	18.8
20°-30°	131.3	23.7
30°-40°	120.5	21.8
40°-50°	82.0	14.8
50°-60°	44.7	8.1
60°-70°	19.3	3.5
70°-80°	7.1	1.3
80°-90°	4.6	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°	275.6	49.8
0°-40°	396.1	71.5
0°-60°	522.8	94.4
0°-90°	553.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	553.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	439	439	439	439	439	
5°	423	428	429	434	437	39
15°	339	351	368	394	410	94
25°	234	251	278	323	355	107
35°	126	145	182	240	287	78
45°	27	45	91	162	220	25
55°	8	8	24	89	142	7
65°	3	4	13	28	57	3
75°	2	7	7	7	7	2
85°	2	5	6	6	4	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	439.3	439.3	439.3	439.3	439.3
2.5°	434.2	439.3	435.7	436.8	436.8
5°	422.8	428.5	429.0	433.7	437.3
7.5°	405.8	414.1	418.2	427.5	433.7
10°	385.2	395.0	403.2	419.2	427.5
12.5°	363.0	374.4	386.7	407.9	419.7
15°	339.3	351.2	367.7	394.0	409.9
17.5°	313.0	327.4	347.5	379.0	398.6
20°	287.7	302.2	325.4	361.0	385.2
22.5°	261.4	276.4	302.2	341.9	370.7
25°	234.1	250.6	278.4	322.8	355.3
27.5°	207.3	224.8	254.2	302.7	338.8
30°	180.5	198.0	230.0	282.1	321.8
32.5°	153.1	171.2	205.7	260.4	304.2
35°	126.3	144.9	182.0	239.8	287.2
37.5°	99.0	118.6	158.3	219.7	270.2
40°	73.2	92.8	135.6	199.6	252.7
42.5°	49.0	68.6	112.4	180.0	236.2
45°	26.8	44.9	91.3	161.9	219.7
47.5°	14.4	24.8	70.6	144.4	201.1
50°	10.8	13.4	52.1	125.8	181.5
52.5°	9.3	10.3	36.1	106.2	161.9
55°	7.7	8.3	24.2	89.2	141.8
57.5°	6.2	6.7	18.0	72.2	120.1
60°	4.6	5.7	16.0	55.7	98.5
62.5°	3.6	4.6	15.0	40.7	77.9
65°	2.6	3.6	13.4	27.8	57.2
67.5°	2.6	4.1	11.3	18.0	38.7
70°	2.1	5.7	9.8	11.9	21.7
72.5°	2.1	6.2	8.3	8.3	8.3
75°	2.1	6.7	7.2	7.2	7.2
77.5°	2.1	6.2	6.7	6.2	6.2
80°	2.1	5.7	5.7	5.7	5.7
82.5°	2.1	5.2	5.7	5.7	4.6
85°	2.1	4.6	5.7	5.7	4.1
87.5°	1.5	4.6	5.2	5.2	3.1
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	0.00	0.00	0.00	0.00	13.03	14.31	13.40	14.62	14.94
	3H	0.00	0.00	0.00	0.00	0.00	13.41	14.54	13.79	14.87	15.23
	4H	0.00	0.00	0.00	0.00	0.12	13.39	14.44	13.79	14.79	15.17
	6H	0.00	0.49	0.00	0.86	1.26	13.37	14.34	13.79	14.71	15.11
	8H	0.13	1.04	0.56	1.43	1.84	13.37	14.29	13.81	14.68	15.09
	12H	0.80	1.68	1.24	2.06	2.49	13.39	14.26	13.82	14.64	15.07
4H	2H	0.00	0.33	0.00	0.68	1.06	12.84	13.89	13.25	14.25	14.63
	3H	0.87	1.73	1.28	2.13	2.54	13.26	14.12	13.68	14.53	14.93
	4H	2.16	2.93	2.60	3.35	3.79	13.26	14.03	13.70	14.45	14.89
	6H	3.30	3.97	3.77	4.41	4.88	13.30	13.96	13.77	14.41	14.88
	8H	3.82	4.44	4.29	4.89	5.36	13.33	13.95	13.80	14.39	14.87
	12H	4.38	4.92	4.86	5.41	5.88	13.39	13.94	13.88	14.42	14.90
8H	4H	3.25	3.87	3.72	4.31	4.78	13.17	13.79	13.64	14.24	14.71
	6H	4.80	5.31	5.31	5.80	6.29	13.25	13.76	13.75	14.25	14.73
	8H	5.62	6.07	6.14	6.59	7.08	13.33	13.79	13.86	14.31	14.80
	12H	6.45	6.85	6.96	7.35	7.92	13.50	13.91	14.02	14.40	14.97
12H	4H	3.44	3.98	3.93	4.47	4.94	13.13	13.68	13.62	14.16	14.64
	6H	5.16	5.61	5.68	6.13	6.62	13.22	13.68	13.75	14.20	14.69
	8H	6.18	6.58	6.69	7.08	7.65	13.36	13.76	13.88	14.26	14.83