

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: P1060887

Luminaire Tested: S124RDR-H575D840-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060887
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-H575D840-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: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

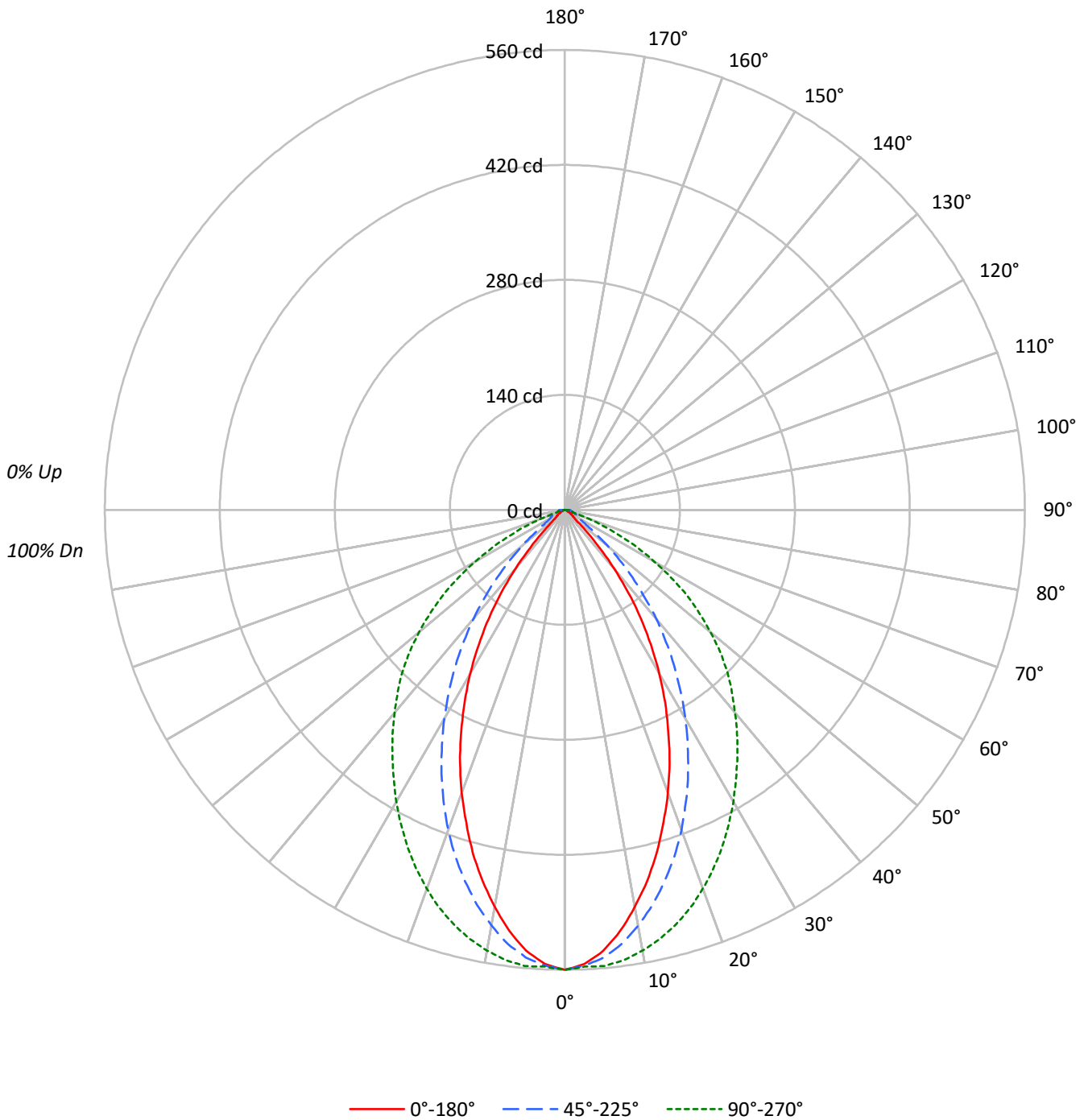
Lumens per Lamp: N/A
Luminaire Lumens: 705.8 lumens
Efficiency: N/A
Efficacy: 40.6 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.96
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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																		
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°	4823	4823	4823
5°	4659	4727	4818
10°	4293	4494	4765
15°	3856	4178	4659
20°	3361	3801	4499
25°	2835	3373	4303
30°	2288	2915	4079
35°	1692	2439	3849
40°	1049	1944	3621
45°	416	1416	3410
50°	185	890	3100
55°	149	464	2714
60°	102	351	2163
65°	67	348	1487
70°	65	315	695
75°	87	306	306
80°	129	357	357
85°	257	711	524

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3410 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.4	7.3
10°-20°	132.6	18.8
20°-30°	167.4	23.7
30°-40°	153.5	21.8
40°-50°	104.6	14.8
50°-60°	57.0	8.1
60°-70°	24.7	3.5
70°-80°	9.0	1.3
80°-90°	5.8	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°	351.3	49.8
0°-40°	504.9	71.5
0°-60°	666.4	94.4
0°-90°	705.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	705.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	560	560	560	560	560	
5°	539	546	547	553	557	50
15°	432	448	469	502	523	120
25°	298	320	355	412	453	136
35°	161	185	232	306	366	99
45°	34	57	116	206	280	32
55°	10	10	31	114	181	9
65°	3	5	17	36	73	4
75°	3	8	9	9	9	3
85°	3	6	7	7	5	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	560.1	560.1	560.1	560.1	560.1
2.5°	553.5	560.1	555.5	556.8	556.8
5°	539.0	546.2	546.9	552.8	557.4
7.5°	517.3	527.8	533.1	544.9	552.8
10°	491.0	503.5	514.0	534.4	544.9
12.5°	462.8	477.2	493.0	520.0	535.1
15°	432.5	447.6	468.7	502.2	522.6
17.5°	399.0	417.4	443.0	483.1	508.1
20°	366.8	385.2	414.8	460.1	491.0
22.5°	333.3	352.3	385.2	435.8	472.6
25°	298.4	319.5	355.0	411.5	452.9
27.5°	264.3	286.6	324.1	385.9	431.9
30°	230.1	252.4	293.2	359.6	410.2
32.5°	195.2	218.2	262.3	332.0	387.8
35°	161.0	184.7	232.0	305.7	366.1
37.5°	126.2	151.2	201.8	280.0	344.4
40°	93.3	118.3	172.9	254.4	322.1
42.5°	62.4	87.4	143.3	229.4	301.1
45°	34.2	57.2	116.3	206.4	280.0
47.5°	18.4	31.6	90.1	184.1	256.4
50°	13.8	17.1	66.4	160.4	231.4
52.5°	11.8	13.1	46.0	135.4	206.4
55°	9.9	10.5	30.9	113.7	180.8
57.5°	7.9	8.5	23.0	92.0	153.2
60°	5.9	7.2	20.4	71.0	125.6
62.5°	4.6	5.9	19.1	51.9	99.3
65°	3.3	4.6	17.1	35.5	73.0
67.5°	3.3	5.3	14.5	23.0	49.3
70°	2.6	7.2	12.5	15.1	27.6
72.5°	2.6	7.9	10.5	10.5	10.5
75°	2.6	8.5	9.2	9.2	9.2
77.5°	2.6	7.9	8.5	7.9	7.9
80°	2.6	7.2	7.2	7.2	7.2
82.5°	2.6	6.6	7.2	7.2	5.9
85°	2.6	5.9	7.2	7.2	5.3
87.5°	2.0	5.9	6.6	6.6	3.9
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	0.00	0.00	0.00	0.00	0.00	13.87	15.15	14.24	15.47	15.78
	3H	0.00	0.00	0.00	0.00	0.00	14.25	15.38	14.63	15.71	16.08
	4H	0.00	0.18	0.00	0.53	0.91	14.23	15.28	14.63	15.63	16.02
	6H	0.30	1.27	0.72	1.64	2.03	14.22	15.18	14.63	15.55	15.95
	8H	0.89	1.80	1.32	2.20	2.60	14.22	15.13	14.65	15.52	15.93
	12H	1.56	2.43	1.99	2.81	3.24	14.23	15.10	14.66	15.49	15.92
4H	2H	0.11	1.17	0.52	1.52	1.90	13.68	14.74	14.09	15.09	15.47
	3H	1.70	2.56	2.11	2.96	3.37	14.10	14.96	14.52	15.37	15.77
	4H	2.98	3.75	3.42	4.17	4.61	14.10	14.87	14.54	15.29	15.73
	6H	4.11	4.77	4.57	5.22	5.68	14.14	14.80	14.61	15.25	15.72
	8H	4.62	5.24	5.09	5.68	6.15	14.17	14.79	14.64	15.24	15.71
	12H	5.16	5.71	5.65	6.19	6.67	14.24	14.78	14.72	15.26	15.74
8H	4H	4.07	4.69	4.54	5.13	5.61	14.01	14.63	14.48	15.08	15.55
	6H	5.61	6.11	6.11	6.61	7.09	14.09	14.60	14.59	15.09	15.57
	8H	6.42	6.87	6.94	7.39	7.88	14.17	14.63	14.70	15.14	15.64
	12H	7.25	7.65	7.77	8.15	8.72	14.34	14.74	14.86	15.24	15.81
12H	4H	4.26	4.80	4.74	5.29	5.76	13.98	14.52	14.46	15.01	15.48
	6H	5.96	6.42	6.49	6.93	7.43	14.06	14.52	14.59	15.03	15.53
	8H	6.98	7.38	7.49	7.88	8.45	14.20	14.60	14.71	15.10	15.67