

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: P1060869

Luminaire Tested: S124RDR-H575D830-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060869
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-H575D830-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

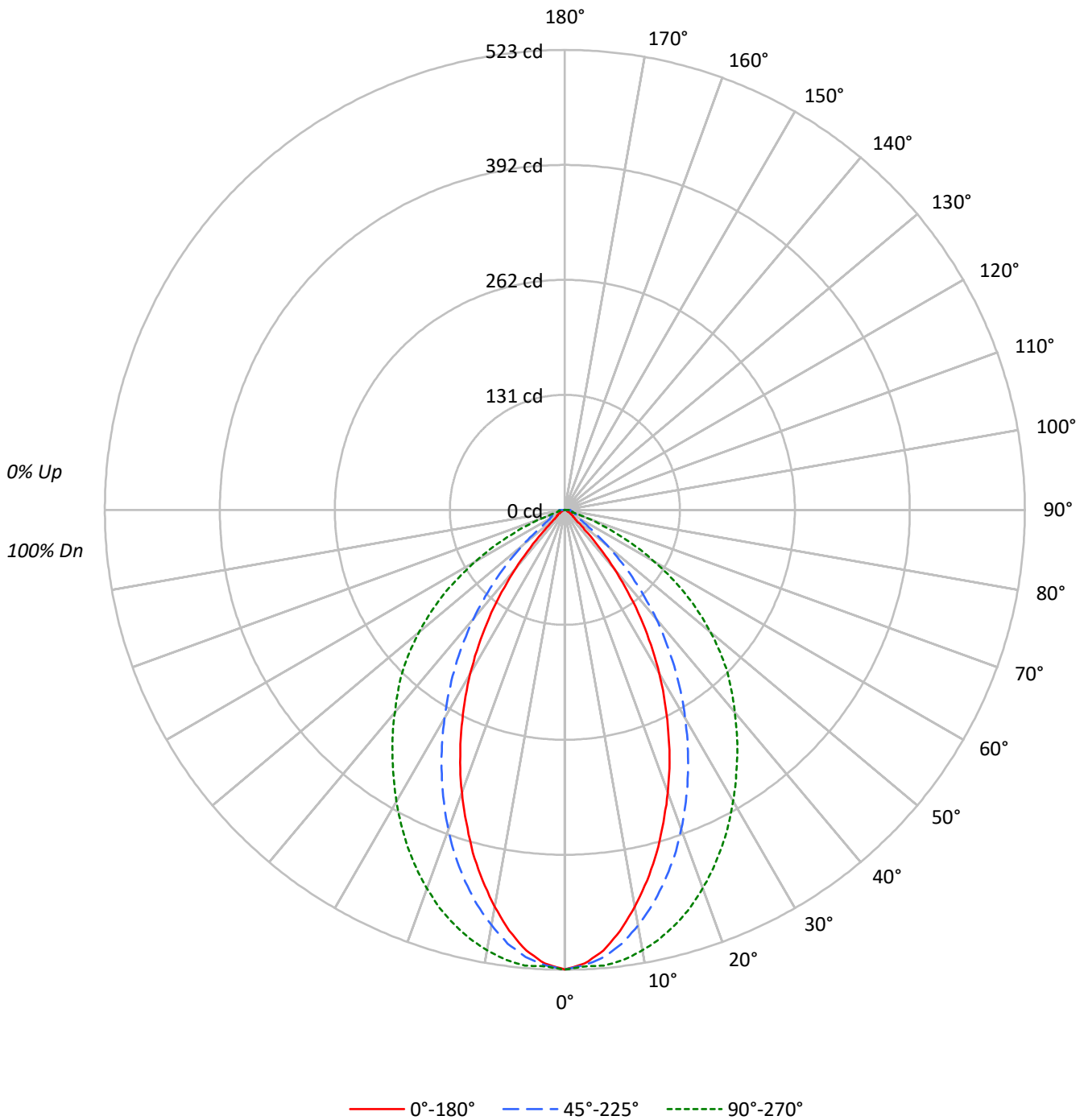
Lumens per Lamp: N/A
Luminaire Lumens: 658.8 lumens
Efficiency: N/A
Efficacy: 37.9 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	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°	4501	4501	4501
5°	4349	4412	4497
10°	4007	4195	4447
15°	3599	3899	4348
20°	3137	3547	4200
25°	2646	3148	4016
30°	2135	2720	3806
35°	1580	2277	3592
40°	979	1814	3379
45°	388	1323	3183
50°	173	831	2894
55°	138	432	2533
60°	95	327	2018
65°	63	326	1388
70°	63	295	650
75°	83	286	286
80°	124	332	332
85°	247	662	484

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3183 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.9	7.3
10°-20°	123.7	18.8
20°-30°	156.2	23.7
30°-40°	143.3	21.8
40°-50°	97.6	14.8
50°-60°	53.2	8.1
60°-70°	23.0	3.5
70°-80°	8.4	1.3
80°-90°	5.4	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°	327.9	49.8
0°-40°	471.2	71.5
0°-60°	622.0	94.4
0°-90°	658.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	658.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	523	523	523	523	523	
5°	503	510	510	516	520	47
15°	404	418	437	469	488	112
25°	278	298	331	384	423	127
35°	150	172	217	285	342	93
45°	32	53	109	193	261	30
55°	9	10	29	106	169	8
65°	3	4	16	33	68	4
75°	2	8	9	9	9	3
85°	2	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°	522.7	522.7	522.7	522.7	522.7
2.5°	516.6	522.7	518.4	519.6	519.6
5°	503.1	509.8	510.4	516.0	520.3
7.5°	482.8	492.7	497.6	508.6	516.0
10°	458.3	470.0	479.8	498.8	508.6
12.5°	431.9	445.4	460.1	485.3	499.4
15°	403.7	417.8	437.4	468.7	487.7
17.5°	372.4	389.6	413.5	450.9	474.2
20°	342.3	359.5	387.1	429.5	458.3
22.5°	311.1	328.8	359.5	406.8	441.1
25°	278.5	298.2	331.3	384.1	422.7
27.5°	246.6	267.5	302.5	360.1	403.1
30°	214.7	235.6	273.6	335.6	382.8
32.5°	182.2	203.7	244.8	309.8	362.0
35°	150.3	172.4	216.6	285.3	341.7
37.5°	117.8	141.1	188.4	261.4	321.5
40°	87.1	110.4	161.4	237.4	300.6
42.5°	58.3	81.6	133.7	214.1	281.0
45°	31.9	53.4	108.6	192.6	261.4
47.5°	17.2	29.4	84.1	171.8	239.3
50°	12.9	16.0	62.0	149.7	216.0
52.5°	11.0	12.3	42.9	126.4	192.6
55°	9.2	9.8	28.8	106.1	168.7
57.5°	7.4	8.0	21.5	85.9	142.9
60°	5.5	6.7	19.0	66.3	117.2
62.5°	4.3	5.5	17.8	48.5	92.6
65°	3.1	4.3	16.0	33.1	68.1
67.5°	3.1	4.9	13.5	21.5	46.0
70°	2.5	6.7	11.7	14.1	25.8
72.5°	2.5	7.4	9.8	9.8	9.8
75°	2.5	8.0	8.6	8.6	8.6
77.5°	2.5	7.4	8.0	7.4	7.4
80°	2.5	6.7	6.7	6.7	6.7
82.5°	2.5	6.1	6.7	6.7	5.5
85°	2.5	5.5	6.7	6.7	4.9
87.5°	1.8	5.5	6.1	6.1	3.7
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	13.64	14.91	14.00	15.23	15.54
	3H	0.00	0.00	0.00	0.00	0.00	14.01	15.14	14.39	15.47	15.84
	4H	0.00	0.00	0.00	0.34	0.73	13.99	15.04	14.39	15.39	15.78
	6H	0.13	1.10	0.55	1.47	1.87	13.98	14.94	14.39	15.31	15.71
	8H	0.73	1.64	1.16	2.03	2.44	13.98	14.89	14.41	15.28	15.69
	12H	1.41	2.28	1.84	2.66	3.09	13.99	14.86	14.42	15.25	15.68
4H	2H	0.00	0.95	0.30	1.30	1.69	13.45	14.50	13.85	14.85	15.23
	3H	1.48	2.34	1.89	2.74	3.14	13.87	14.72	14.28	15.13	15.53
	4H	2.78	3.54	3.21	3.97	4.41	13.86	14.63	14.30	15.05	15.50
	6H	3.91	4.57	4.37	5.02	5.48	13.90	14.57	14.37	15.01	15.48
	8H	4.42	5.04	4.89	5.48	5.95	13.93	14.55	14.40	15.00	15.47
	12H	4.97	5.52	5.46	6.00	6.48	14.00	14.54	14.48	15.02	15.50
8H	4H	3.86	4.48	4.33	4.93	5.40	13.77	14.39	14.24	14.84	15.31
	6H	5.39	5.90	5.90	6.40	6.88	13.85	14.36	14.36	14.86	15.34
	8H	6.20	6.65	6.72	7.17	7.66	13.93	14.39	14.46	14.90	15.40
	12H	7.03	7.43	7.55	7.93	8.50	14.10	14.50	14.62	15.00	15.57
12H	4H	4.05	4.59	4.53	5.07	5.55	13.74	14.28	14.23	14.77	15.24
	6H	5.74	6.20	6.27	6.71	7.21	13.83	14.28	14.35	14.80	15.29
	8H	6.75	7.15	7.26	7.65	8.22	13.96	14.36	14.48	14.86	15.43