

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: P1060954

Luminaire Tested: S124RDR-H795D830-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060954
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-37)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H795D830-X4F0-XX-UDD-WVL-B
Description: DEFINE 4 BLACK 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

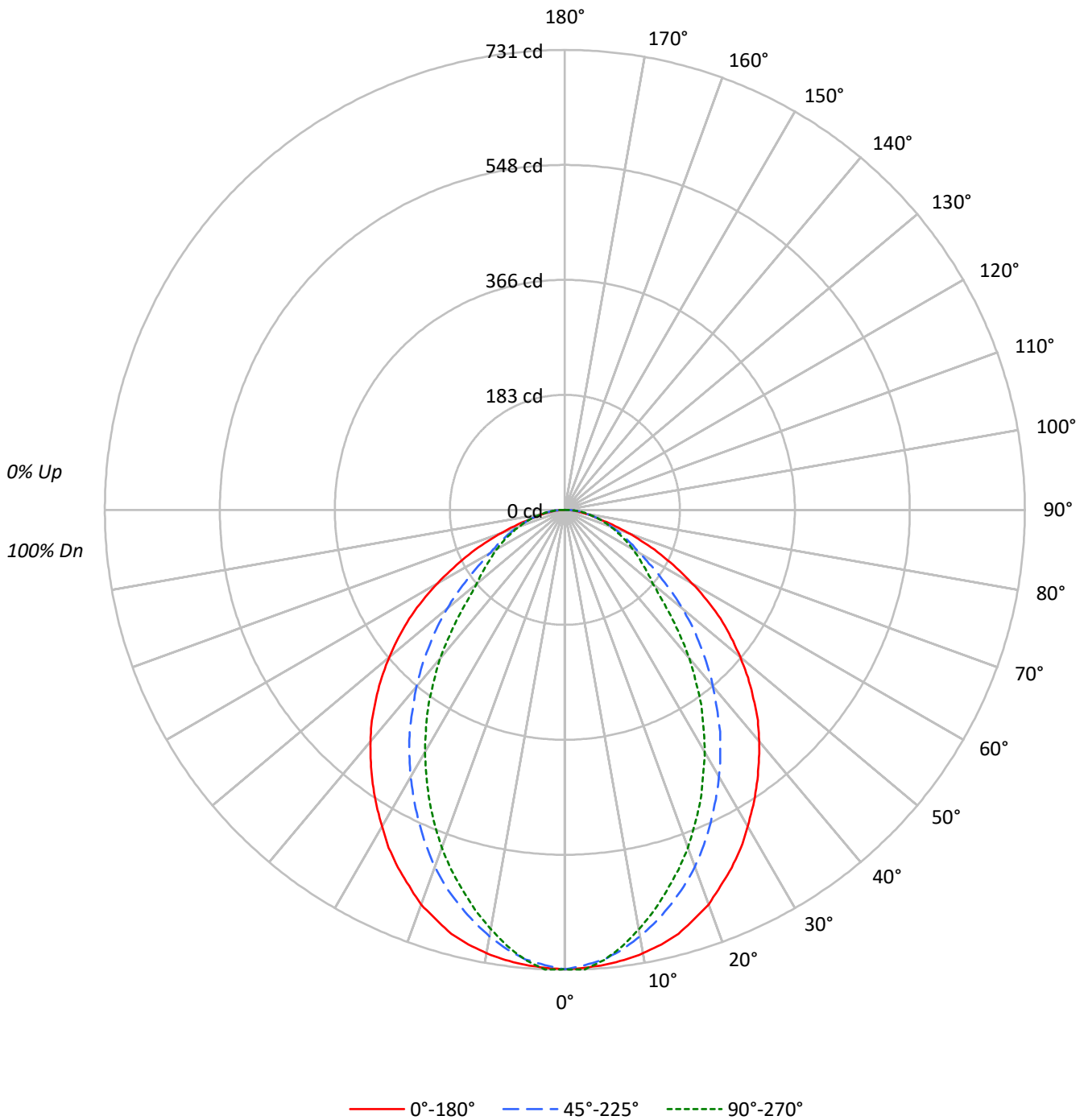
Lumens per Lamp: N/A
Luminaire Lumens: 1408.1 lumens
Efficiency: N/A
Efficacy: 59.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.5
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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CATALOG NUMBER: S124RDR-H795D830-X4F0-XX-UDD-WVL-B

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	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86																												
2	101	94	88	83	99	92	86	82	89	84	80	85	82	78	82	79	76	74																												
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66	64																												
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56																												
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50																												
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46	44																												
7	69	57	48	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40																												
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38	36																												
9	61	48	40	35	59	48	40	35	46	40	35	45	39	35	44	39	35	33																												
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32	30																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6288	6288	6288
5°	6276	6201	6208
10°	6258	6018	5920
15°	6219	5791	5584
20°	6118	5536	5237
25°	5960	5210	4843
30°	5776	4872	4420
35°	5593	4519	3969
40°	5401	4119	3463
45°	5162	3700	2895
50°	4874	3265	2449
55°	4535	2770	2267
60°	4020	2349	2142
65°	3427	2168	2027
70°	2679	2009	1924
75°	1827	1857	1857
80°	1572	1746	1785
85°	1354	1699	1867

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5162 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.9	4.8
10°-20°	184.5	13.1
20°-30°	256.2	18.2
30°-40°	274.6	19.5
40°-50°	243.3	17.3
50°-60°	183.3	13.0
60°-70°	118.7	8.4
70°-80°	60.9	4.3
80°-90°	18.7	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°	508.6	36.1
0°-40°	783.2	55.6
0°-60°	1209.7	85.9
0°-90°	1408.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1408.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	730	730	730	730	730	
5°	726	727	717	718	718	69
15°	698	682	650	633	626	196
25°	627	594	548	519	510	289
35°	532	484	430	391	378	333
45°	424	369	304	257	238	327
55°	302	251	184	155	151	268
65°	168	136	106	100	100	167
75°	55	58	56	56	56	65
85°	14	15	17	19	19	16
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	730.2	730.2	730.2	730.2	730.2
2.5°	728.5	731.1	724.2	729.4	731.1
5°	726.0	726.8	717.4	718.2	718.2
7.5°	721.7	720.0	704.5	700.2	699.4
10°	715.7	710.5	688.2	679.6	677.0
12.5°	707.9	698.5	670.2	658.2	653.0
15°	697.6	682.2	649.6	633.3	626.4
17.5°	682.2	662.5	628.1	607.5	599.8
20°	667.6	641.0	604.1	578.4	571.5
22.5°	647.0	618.7	576.6	549.2	540.6
25°	627.3	593.8	548.3	519.2	509.7
27.5°	605.8	568.1	519.2	488.3	476.2
30°	580.9	540.6	490.0	457.4	444.5
32.5°	556.9	514.0	459.9	423.9	410.2
35°	532.0	484.0	429.9	391.3	377.6
37.5°	506.3	455.7	396.4	358.7	340.7
40°	480.5	427.3	366.4	323.5	308.1
42.5°	453.9	398.2	335.5	290.9	271.2
45°	423.9	369.0	303.8	256.6	237.7
47.5°	394.7	340.7	274.6	223.1	205.9
50°	363.8	310.6	243.7	193.9	182.8
52.5°	332.9	279.7	213.7	171.6	166.5
55°	302.1	251.4	184.5	155.3	151.0
57.5°	267.7	222.2	158.7	140.7	137.3
60°	233.4	190.5	136.4	127.0	124.4
62.5°	199.9	163.0	121.0	113.3	111.6
65°	168.2	135.6	106.4	100.4	99.5
67.5°	137.3	111.6	92.7	89.2	87.5
70°	106.4	89.2	79.8	78.1	76.4
72.5°	78.9	72.1	67.8	66.9	66.1
75°	54.9	57.5	55.8	55.8	55.8
77.5°	43.8	44.6	45.5	46.3	45.5
80°	31.7	34.3	35.2	36.9	36.0
82.5°	22.3	24.0	26.6	27.5	28.3
85°	13.7	14.6	17.2	18.9	18.9
87.5°	6.0	6.9	8.6	10.3	11.2
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	16.83	18.32	17.19	18.64	18.95	13.39	14.89	13.76	15.20	15.52
	3H	18.03	19.38	18.41	19.70	20.07	15.09	16.43	15.46	16.76	17.12
	4H	18.34	19.60	18.74	19.95	20.33	15.77	17.02	16.17	17.37	17.75
	6H	18.54	19.70	18.95	20.07	20.46	16.31	17.48	16.73	17.84	18.24
	8H	18.60	19.71	19.03	20.10	20.50	16.53	17.64	16.96	18.03	18.43
	12H	18.63	19.69	19.06	20.07	20.50	16.70	17.76	17.13	18.15	18.58
4H	2H	16.97	18.23	17.37	18.58	18.96	14.05	15.31	14.45	15.66	16.04
	3H	18.37	19.42	18.78	19.82	20.22	15.96	17.01	16.37	17.41	17.81
	4H	18.80	19.74	19.23	20.15	20.59	16.76	17.70	17.20	18.12	18.56
	6H	19.12	19.94	19.58	20.38	20.84	17.45	18.27	17.91	18.71	19.17
	8H	19.22	19.98	19.68	20.43	20.90	17.72	18.49	18.19	18.93	19.40
	12H	19.29	19.97	19.77	20.45	20.92	17.96	18.64	18.44	19.12	19.59
8H	4H	18.92	19.69	19.39	20.13	20.60	17.08	17.84	17.54	18.29	18.76
	6H	19.35	19.98	19.84	20.47	20.95	17.91	18.54	18.41	19.03	19.51
	8H	19.50	20.07	20.02	20.58	21.07	18.27	18.84	18.79	19.35	19.84
	12H	19.63	20.13	20.14	20.62	21.19	18.61	19.11	19.12	19.60	20.17
12H	4H	18.93	19.61	19.41	20.09	20.56	17.11	17.79	17.59	18.27	18.74
	6H	19.37	19.94	19.88	20.45	20.94	17.97	18.54	18.48	19.05	19.54
	8H	19.58	20.08	20.09	20.57	21.14	18.40	18.90	18.91	19.40	19.96