

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: P1061001

Luminaire Tested: S124RDR-H795D930-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1061001
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-73)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H795D930-X4F0-XX-UDD-WVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

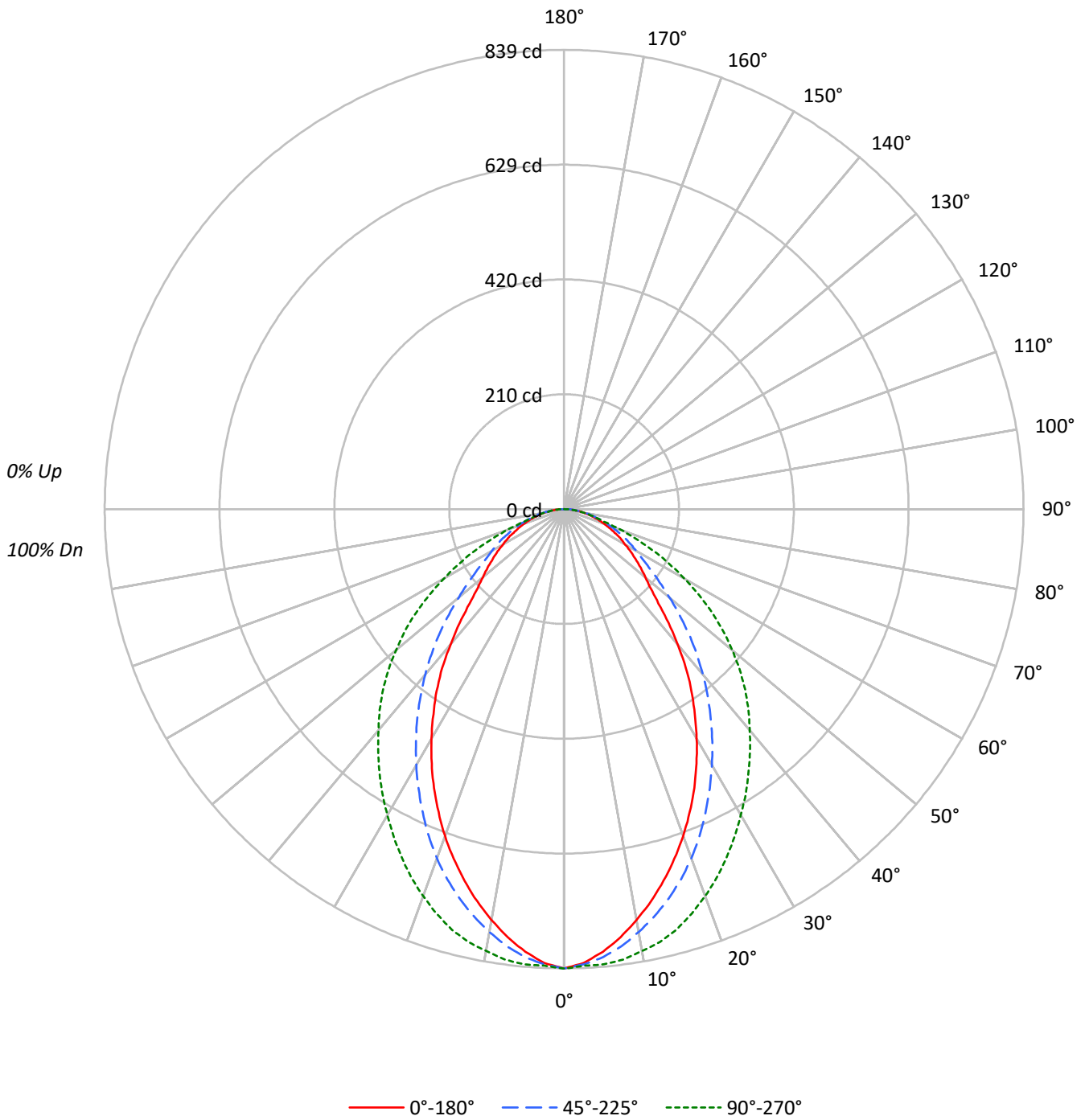
Lumens per Lamp: N/A
Luminaire Lumens: 1540.1 lumens
Efficiency: N/A
Efficacy: 65.5 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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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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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87				
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75				
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65				
4	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	57				
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	50				
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45				
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40				
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37				
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33				
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7227	7227	7227
5°	7017	7101	7217
10°	6664	6859	7170
15°	6265	6568	7086
20°	5826	6221	6895
25°	5343	5808	6669
30°	4816	5369	6418
35°	4264	4911	6176
40°	3624	4433	5929
45°	2967	3916	5698
50°	2598	3364	5364
55°	2387	2899	4962
60°	2213	2609	4374
65°	2074	2451	3664
70°	1944	2243	2749
75°	1830	2049	2003
80°	1696	1879	1696
85°	1541	1838	1472

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5698 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.6	5.0
10°-20°	208.7	13.6
20°-30°	285.3	18.5
30°-40°	299.8	19.5
40°-50°	260.2	16.9
50°-60°	196.3	12.7
60°-70°	127.2	8.3
70°-80°	65.3	4.2
80°-90°	19.8	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°	571.5	37.1
0°-40°	871.4	56.6
0°-60°	1327.8	86.2
0°-90°	1540.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1540.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	839	839	839	839	839	
5°	812	823	822	828	835	76
15°	703	720	737	770	795	197
25°	562	582	611	658	702	258
35°	406	428	467	530	588	252
45°	244	267	322	402	468	192
55°	159	163	193	274	330	143
65°	102	104	120	146	180	101
75°	55	62	62	62	60	58
85°	16	19	19	18	15	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	839.3	839.3	839.3	839.3	839.3
2.5°	829.7	840.1	832.6	834.1	834.9
5°	811.8	823.0	821.5	828.2	834.9
7.5°	788.8	802.2	805.2	818.5	829.7
10°	762.1	776.9	784.4	805.9	820.0
12.5°	733.9	748.7	762.1	789.6	809.6
15°	702.7	719.7	736.8	770.3	794.8
17.5°	670.0	687.8	709.3	745.7	774.7
20°	635.8	653.6	678.9	718.3	752.4
22.5°	599.4	619.5	646.2	688.5	728.7
25°	562.3	582.3	611.3	658.1	701.9
27.5°	523.7	544.4	575.6	627.6	674.4
30°	484.3	506.6	540.0	595.0	645.5
32.5°	444.2	467.9	503.6	562.3	617.2
35°	405.6	427.8	467.2	529.6	587.5
37.5°	365.4	387.7	430.1	497.7	557.8
40°	322.4	346.9	394.4	464.2	527.4
42.5°	282.3	306.8	358.0	432.3	498.4
45°	243.6	266.7	321.6	401.8	467.9
47.5°	213.9	230.3	285.2	372.1	435.3
50°	193.9	201.3	251.1	339.4	400.4
52.5°	176.0	182.0	219.9	306.8	366.2
55°	159.0	163.4	193.1	274.1	330.5
57.5°	144.1	146.3	169.4	241.4	291.9
60°	128.5	131.5	151.5	208.0	254.0
62.5°	115.9	117.4	135.9	176.0	216.1
65°	101.8	104.0	120.3	145.6	179.8
67.5°	89.1	92.8	104.0	118.8	141.9
70°	77.2	82.4	89.1	96.6	109.2
72.5°	66.1	72.0	75.8	78.7	76.5
75°	55.0	61.6	61.6	62.4	60.2
77.5°	44.6	50.5	49.8	49.0	46.1
80°	34.2	39.4	37.9	37.1	34.2
82.5°	25.3	29.0	27.5	26.7	23.0
85°	15.6	19.3	18.6	17.8	14.9
87.5°	7.4	11.1	10.4	9.7	6.7
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	13.37	14.86	13.74	15.17	15.49	17.11	18.60	17.48	18.91	19.23
	3H	15.04	16.37	15.42	16.70	17.06	18.24	19.57	18.62	19.90	20.26
	4H	15.71	16.96	16.11	17.31	17.68	18.54	19.78	18.94	20.13	20.51
	6H	16.22	17.37	16.63	17.74	18.13	18.74	19.89	19.15	20.26	20.65
	8H	16.39	17.49	16.82	17.88	18.28	18.79	19.89	19.22	20.28	20.68
	12H	16.51	17.56	16.94	17.94	18.37	18.82	19.87	19.25	20.26	20.68
4H	2H	14.17	15.41	14.57	15.76	16.14	17.28	18.53	17.68	18.88	19.26
	3H	16.04	17.07	16.45	17.47	17.87	18.61	19.64	19.02	20.05	20.45
	4H	16.84	17.77	17.27	18.19	18.63	19.03	19.96	19.46	20.37	20.81
	6H	17.49	18.29	17.94	18.74	19.20	19.35	20.16	19.81	20.60	21.06
	8H	17.71	18.47	18.17	18.91	19.38	19.44	20.20	19.91	20.64	21.11
	12H	17.87	18.55	18.36	19.03	19.50	19.51	20.19	20.00	20.67	21.14
8H	4H	17.19	17.95	17.65	18.39	18.86	19.16	19.92	19.62	20.36	20.83
	6H	17.98	18.61	18.48	19.10	19.58	19.58	20.20	20.08	20.70	21.17
	8H	18.30	18.86	18.81	19.37	19.86	19.73	20.30	20.25	20.81	21.30
	12H	18.56	19.06	19.07	19.55	20.12	19.87	20.37	20.38	20.86	21.43
12H	4H	17.22	17.89	17.70	18.37	18.85	19.16	19.84	19.65	20.32	20.79
	6H	18.04	18.60	18.56	19.11	19.60	19.60	20.16	20.11	20.67	21.16
	8H	18.43	18.92	18.94	19.42	19.98	19.81	20.30	20.32	20.80	21.36