

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: P1061026

Luminaire Tested: S124RDR-H795D950-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1061026
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-H795D950-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: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

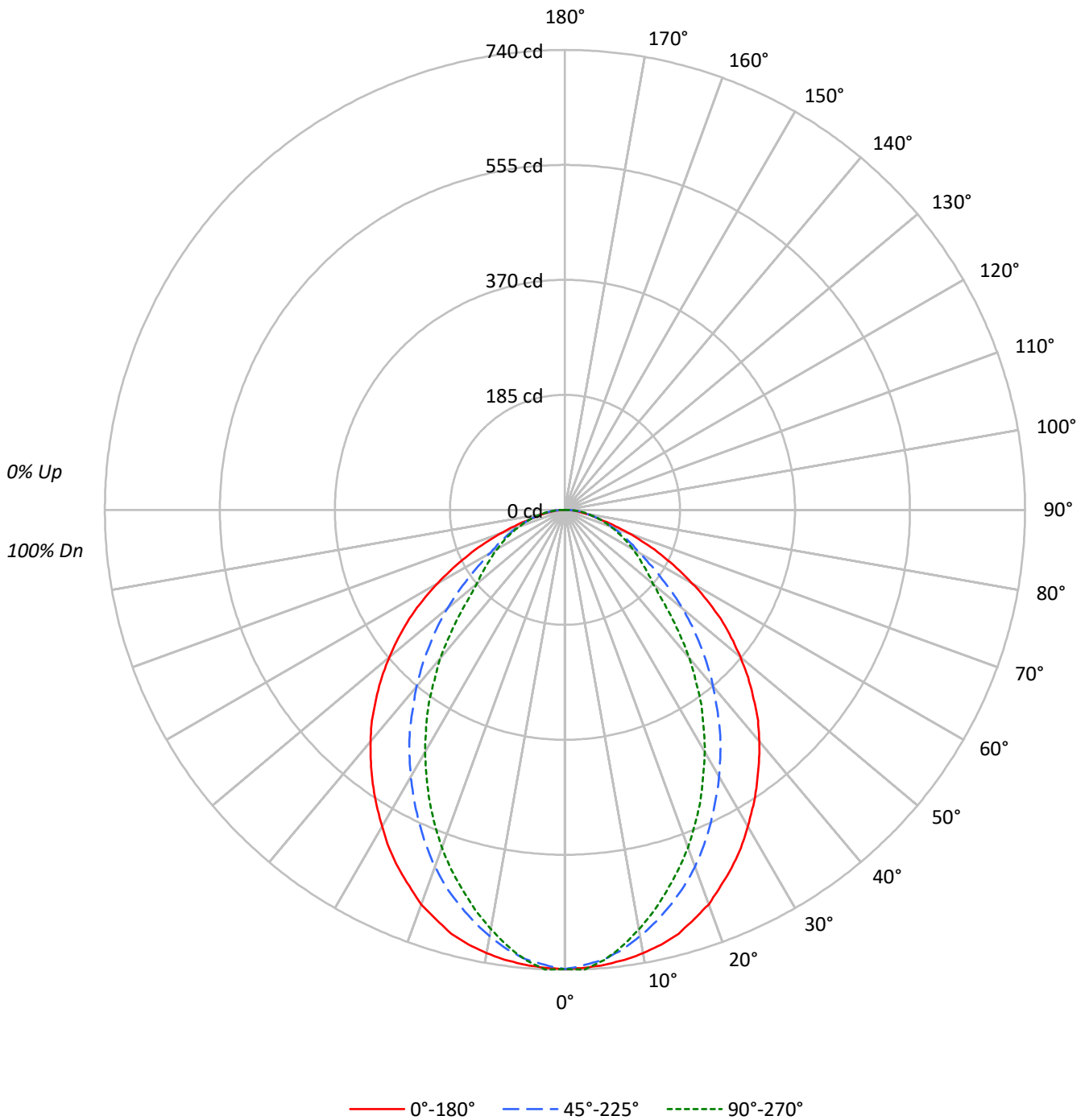
Lumens per Lamp: N/A
Luminaire Lumens: 1425.2 lumens
Efficiency: N/A
Efficacy: 60.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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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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°	6364	6364	6364
5°	6352	6276	6284
10°	6334	6091	5992
15°	6295	5862	5652
20°	6192	5604	5300
25°	6032	5273	4902
30°	5847	4931	4473
35°	5661	4574	4018
40°	5468	4169	3505
45°	5226	3745	2930
50°	4934	3305	2478
55°	4589	2803	2295
60°	4068	2378	2168
65°	3468	2194	2054
70°	2712	2034	1946
75°	1850	1880	1880
80°	1592	1765	1810
85°	1373	1719	1887

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5226 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.8	4.8
10°-20°	186.8	13.1
20°-30°	259.3	18.2
30°-40°	277.9	19.5
40°-50°	246.2	17.3
50°-60°	185.5	13.0
60°-70°	120.1	8.4
70°-80°	61.7	4.3
80°-90°	18.9	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°	514.8	36.1
0°-40°	792.7	55.6
0°-60°	1224.5	85.9
0°-90°	1425.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1425.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	739	739	739	739	739	
5°	735	736	726	727	727	70
15°	706	690	658	641	634	199
25°	635	601	555	526	516	292
35°	538	490	435	396	382	337
45°	429	374	308	260	241	331
55°	306	254	187	157	153	272
65°	170	137	108	102	101	169
75°	56	58	56	56	56	66
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°	739.1	739.1	739.1	739.1	739.1
2.5°	737.4	740.0	733.0	738.3	740.0
5°	734.8	735.7	726.1	727.0	727.0
7.5°	730.4	728.7	713.1	708.7	707.9
10°	724.4	719.1	696.6	687.9	685.3
12.5°	716.5	707.0	678.3	666.2	661.0
15°	706.1	690.5	657.5	641.0	634.0
17.5°	690.5	670.5	635.8	614.9	607.1
20°	675.7	648.8	611.5	585.4	578.4
22.5°	654.9	626.2	583.7	555.9	547.2
25°	634.9	601.0	555.0	525.5	515.9
27.5°	613.2	575.0	525.5	494.2	482.0
30°	588.0	547.2	495.9	462.9	449.9
32.5°	563.7	520.3	465.5	429.1	415.2
35°	538.5	489.9	435.1	396.1	382.2
37.5°	512.4	461.2	401.3	363.0	344.8
40°	486.4	432.5	370.9	327.4	311.8
42.5°	459.5	403.0	339.6	294.4	274.5
45°	429.1	373.5	307.5	259.7	240.6
47.5°	399.5	344.8	277.9	225.8	208.4
50°	368.3	314.4	246.7	196.3	185.0
52.5°	337.0	283.1	216.3	173.7	168.5
55°	305.7	254.5	186.7	157.2	152.9
57.5°	271.0	225.0	160.7	142.4	139.0
60°	236.2	192.8	138.1	128.5	125.9
62.5°	202.4	165.0	122.5	114.6	112.9
65°	170.2	137.2	107.7	101.6	100.8
67.5°	139.0	112.9	93.8	90.3	88.6
70°	107.7	90.3	80.8	79.0	77.3
72.5°	79.9	73.0	68.6	67.7	66.9
75°	55.6	58.2	56.5	56.5	56.5
77.5°	44.3	45.2	46.0	46.9	46.0
80°	32.1	34.7	35.6	37.3	36.5
82.5°	22.6	24.3	26.9	27.8	28.7
85°	13.9	14.8	17.4	19.1	19.1
87.5°	6.1	6.9	8.7	10.4	11.3
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	16.87	18.37	17.24	18.68	19.00	13.43	14.93	13.80	15.24	15.56
	3H	18.08	19.42	18.45	19.75	20.11	15.13	16.47	15.51	16.80	17.16
	4H	18.38	19.64	18.78	19.99	20.37	15.81	17.07	16.21	17.42	17.79
	6H	18.58	19.75	19.00	20.11	20.51	16.36	17.52	16.77	17.89	18.28
	8H	18.64	19.75	19.07	20.14	20.54	16.57	17.68	17.00	18.07	18.47
	12H	18.68	19.74	19.11	20.12	20.55	16.75	17.81	17.18	18.19	18.62
4H	2H	17.01	18.27	17.41	18.62	19.00	14.09	15.35	14.49	15.70	16.08
	3H	18.41	19.46	18.82	19.86	20.26	16.00	17.05	16.41	17.45	17.85
	4H	18.84	19.78	19.27	20.20	20.64	16.81	17.75	17.24	18.16	18.60
	6H	19.16	19.98	19.62	20.43	20.89	17.49	18.31	17.95	18.75	19.21
	8H	19.26	20.03	19.73	20.47	20.94	17.77	18.53	18.23	18.98	19.44
	12H	19.33	20.02	19.82	20.49	20.97	18.00	18.68	18.48	19.16	19.63
8H	4H	18.97	19.73	19.43	20.18	20.64	17.12	17.89	17.59	18.33	18.80
	6H	19.39	20.02	19.89	20.51	20.99	17.95	18.58	18.45	19.07	19.55
	8H	19.55	20.11	20.06	20.62	21.11	18.32	18.88	18.83	19.39	19.88
	12H	19.67	20.18	20.18	20.67	21.23	18.65	19.15	19.16	19.64	20.21
12H	4H	18.97	19.66	19.46	20.13	20.61	17.15	17.83	17.63	18.31	18.78
	6H	19.41	19.98	19.93	20.49	20.98	18.01	18.58	18.52	19.09	19.58
	8H	19.62	20.12	20.13	20.62	21.18	18.44	18.94	18.95	19.44	20.00