

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: P1061028

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1061028
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-H795D950-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: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

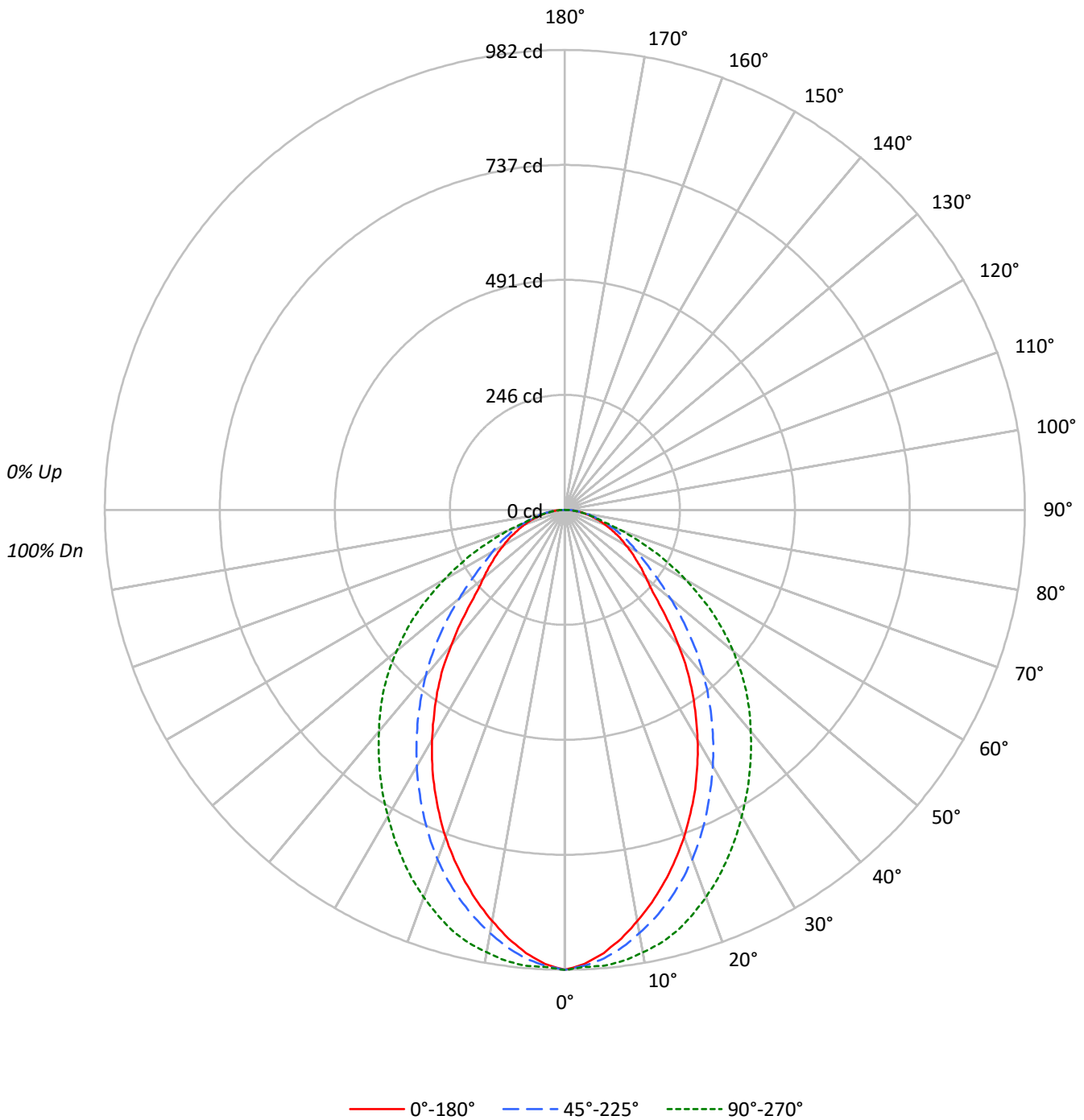
Lumens per Lamp: N/A
Luminaire Lumens: 1802.1 lumens
Efficiency: N/A
Efficacy: 76.7 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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			100	
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87			87	
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75			75	
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65			65	
4	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	57			57	
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	50			50	
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45			45	
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40			40	
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37			37	
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33			33	
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31			31	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8457	8457	8457
5°	8212	8310	8444
10°	7797	8025	8390
15°	7330	7686	8291
20°	6818	7280	8068
25°	6251	6796	7803
30°	5635	6283	7510
35°	4988	5747	7227
40°	4240	5188	6937
45°	3472	4583	6669
50°	3038	3936	6276
55°	2792	3393	5807
60°	2590	3054	5118
65°	2427	2869	4285
70°	2276	2626	3218
75°	2139	2399	2342
80°	1984	2197	1984
85°	1808	2144	1719

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 6669 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.8	5.0
10°-20°	244.2	13.6
20°-30°	333.8	18.5
30°-40°	350.8	19.5
40°-50°	304.4	16.9
50°-60°	229.7	12.7
60°-70°	148.9	8.3
70°-80°	76.4	4.2
80°-90°	23.2	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°	668.8	37.1
0°-40°	1019.6	56.6
0°-60°	1553.7	86.2
0°-90°	1802.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1802.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	982	982	982	982	982	
5°	950	963	961	969	977	89
15°	822	842	862	901	930	230
25°	658	681	715	770	821	302
35°	474	501	547	620	688	295
45°	285	312	376	470	548	224
55°	186	191	226	321	387	167
65°	119	122	141	170	210	119
75°	64	72	72	73	70	68
85°	18	23	22	21	17	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	982.1	982.1	982.1	982.1	982.1
2.5°	970.8	983.0	974.3	976.0	976.9
5°	950.0	963.0	961.3	969.1	976.9
7.5°	923.0	938.7	942.1	957.8	970.8
10°	891.7	909.1	917.8	943.0	959.5
12.5°	858.7	876.1	891.7	923.9	947.4
15°	822.2	842.2	862.2	901.3	930.0
17.5°	784.0	804.8	830.0	872.6	906.5
20°	744.0	764.8	794.4	840.5	880.4
22.5°	701.4	724.9	756.1	805.7	852.6
25°	657.9	681.4	715.3	770.1	821.3
27.5°	612.7	637.1	673.6	734.4	789.2
30°	566.7	592.7	631.9	696.2	755.3
32.5°	519.7	547.6	589.3	657.9	722.2
35°	474.5	500.6	546.7	619.7	687.5
37.5°	427.6	453.7	503.2	582.3	652.7
40°	377.2	405.9	461.5	543.2	617.1
42.5°	330.3	359.0	418.9	505.8	583.2
45°	285.1	312.0	376.3	470.2	547.6
47.5°	250.3	269.4	333.7	435.4	509.3
50°	226.8	235.5	293.8	397.2	468.5
52.5°	206.0	212.9	257.3	359.0	428.5
55°	186.0	191.2	226.0	320.7	386.8
57.5°	168.6	171.2	198.2	282.5	341.6
60°	150.4	153.8	177.3	243.4	297.2
62.5°	135.6	137.3	159.1	206.0	252.9
65°	119.1	121.7	140.8	170.3	210.3
67.5°	104.3	108.6	121.7	139.1	166.0
70°	90.4	96.5	104.3	113.0	127.8
72.5°	77.4	84.3	88.7	92.1	89.5
75°	64.3	72.1	72.1	73.0	70.4
77.5°	52.1	59.1	58.2	57.4	53.9
80°	40.0	46.1	44.3	43.5	40.0
82.5°	29.6	33.9	32.2	31.3	26.9
85°	18.3	22.6	21.7	20.9	17.4
87.5°	8.7	13.0	12.2	11.3	7.8
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	13.92	15.41	14.28	15.72	16.03	17.66	19.15	18.02	19.46	19.77
	3H	15.59	16.92	15.97	17.25	17.61	18.79	20.12	19.16	20.45	20.81
	4H	16.25	17.50	16.65	17.85	18.23	19.08	20.33	19.48	20.68	21.06
	6H	16.76	17.91	17.17	18.28	18.67	19.28	20.43	19.69	20.80	21.19
	8H	16.94	18.03	17.36	18.42	18.83	19.34	20.43	19.76	20.82	21.22
	12H	17.06	18.11	17.49	18.49	18.92	19.37	20.42	19.80	20.80	21.23
4H	2H	14.71	15.96	15.11	16.31	16.69	17.83	19.07	18.23	19.42	19.80
	3H	16.58	17.62	17.00	18.02	18.42	19.16	20.19	19.57	20.59	20.99
	4H	17.39	18.32	17.82	18.74	19.18	19.57	20.50	20.00	20.92	21.36
	6H	18.03	18.84	18.49	19.28	19.75	19.89	20.70	20.35	21.15	21.61
	8H	18.26	19.01	18.72	19.46	19.92	19.99	20.75	20.45	21.19	21.66
	12H	18.42	19.10	18.90	19.58	20.05	20.06	20.74	20.54	21.21	21.69
8H	4H	17.74	18.49	18.20	18.94	19.41	19.70	20.46	20.17	20.91	21.37
	6H	18.53	19.15	19.02	19.64	20.12	20.12	20.75	20.62	21.24	21.72
	8H	18.84	19.41	19.36	19.92	20.41	20.28	20.84	20.80	21.35	21.84
	12H	19.11	19.61	19.62	20.10	20.66	20.42	20.92	20.93	21.41	21.98
12H	4H	17.77	18.44	18.25	18.92	19.39	19.71	20.39	20.19	20.86	21.34
	6H	18.59	19.15	19.10	19.66	20.15	20.15	20.71	20.66	21.22	21.71
	8H	18.97	19.47	19.48	19.96	20.53	20.36	20.85	20.87	21.34	21.91