

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: P1060959

Luminaire Tested: S124RDR-H795D835-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060959
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-H795D835-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: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

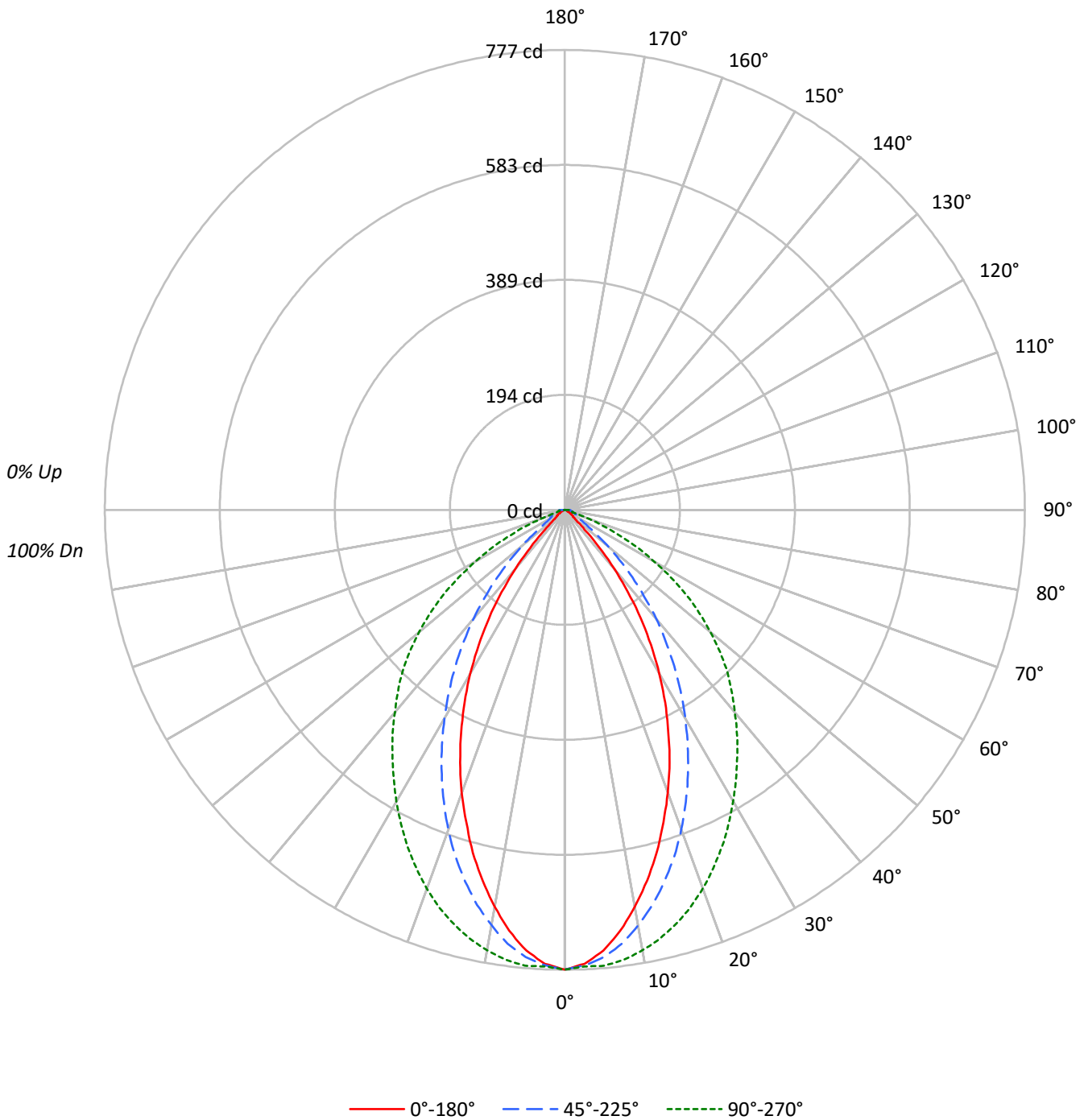
Lumens per Lamp: N/A
Luminaire Lumens: 978.9 lumens
Efficiency: N/A
Efficacy: 41.7 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.96
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	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°	6688	6688	6688
5°	6461	6556	6682
10°	5955	6234	6608
15°	5347	5795	6461
20°	4662	5271	6241
25°	3933	4678	5968
30°	3173	4043	5656
35°	2347	3383	5338
40°	1455	2696	5021
45°	577	1966	4729
50°	256	1234	4299
55°	206	643	3764
60°	141	487	2998
65°	94	483	2062
70°	91	436	964
75°	120	426	426
80°	179	496	496
85°	356	988	721

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4729 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.2	7.3
10°-20°	183.9	18.8
20°-30°	232.1	23.7
30°-40°	213.0	21.8
40°-50°	145.0	14.8
50°-60°	79.0	8.1
60°-70°	34.2	3.5
70°-80°	12.5	1.3
80°-90°	8.0	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°	487.2	49.8
0°-40°	700.2	71.5
0°-60°	924.2	94.4
0°-90°	978.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	978.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	777	777	777	777	777	
5°	748	758	758	767	773	69
15°	600	621	650	696	725	167
25°	414	443	492	571	628	189
35°	223	256	322	424	508	138
45°	47	79	161	286	388	44
55°	14	15	43	158	251	12
65°	5	6	24	49	101	5
75°	4	12	13	13	13	4
85°	4	8	10	10	7	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	776.7	776.7	776.7	776.7	776.7
2.5°	767.6	776.7	770.3	772.1	772.1
5°	747.5	757.5	758.5	766.7	773.0
7.5°	717.4	732.0	739.3	755.7	766.7
10°	681.0	698.3	712.9	741.1	755.7
12.5°	641.8	661.8	683.7	721.1	742.0
15°	599.8	620.8	650.0	696.5	724.7
17.5°	553.3	578.9	614.4	670.0	704.7
20°	508.7	534.2	575.2	638.1	681.0
22.5°	462.2	488.6	534.2	604.4	655.4
25°	413.9	443.0	492.3	570.7	628.1
27.5°	366.5	397.5	449.4	535.1	598.9
30°	319.1	350.1	406.6	498.6	568.8
32.5°	270.7	302.7	363.7	460.4	537.8
35°	223.3	256.2	321.8	423.9	507.8
37.5°	175.0	209.7	279.9	388.3	477.7
40°	129.4	164.1	239.8	352.8	446.7
42.5°	86.6	121.2	198.7	318.2	417.5
45°	47.4	79.3	161.4	286.2	388.3
47.5°	25.5	43.8	124.9	255.2	355.5
50°	19.1	23.7	92.1	222.4	320.9
52.5°	16.4	18.2	63.8	187.8	286.2
55°	13.7	14.6	42.8	157.7	250.7
57.5°	10.9	11.9	31.9	127.6	212.4
60°	8.2	10.0	28.3	98.5	174.1
62.5°	6.4	8.2	26.4	72.0	137.7
65°	4.6	6.4	23.7	49.2	101.2
67.5°	4.6	7.3	20.1	31.9	68.4
70°	3.6	10.0	17.3	21.0	38.3
72.5°	3.6	10.9	14.6	14.6	14.6
75°	3.6	11.9	12.8	12.8	12.8
77.5°	3.6	10.9	11.9	10.9	10.9
80°	3.6	10.0	10.0	10.0	10.0
82.5°	3.6	9.1	10.0	10.0	8.2
85°	3.6	8.2	10.0	10.0	7.3
87.5°	2.7	8.2	9.1	9.1	5.5
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	15.01	16.29	15.38	16.60	16.92
	3H	0.00	0.21	0.00	0.54	0.90	15.39	16.52	15.77	16.85	17.21
	4H	0.29	1.34	0.69	1.69	2.07	15.37	16.42	15.77	16.77	17.15
	6H	1.45	2.42	1.87	2.79	3.18	15.35	16.32	15.77	16.69	17.08
	8H	2.03	2.95	2.47	3.34	3.75	15.35	16.27	15.78	16.66	17.06
	12H	2.70	3.57	3.13	3.95	4.38	15.37	16.24	15.80	16.62	17.05
4H	2H	1.26	2.31	1.66	2.66	3.05	14.82	15.87	15.22	16.22	16.61
	3H	2.84	3.70	3.25	4.10	4.51	15.24	16.10	15.65	16.50	16.91
	4H	4.14	4.90	4.57	5.32	5.77	15.24	16.01	15.68	16.43	16.87
	6H	5.25	5.92	5.72	6.36	6.83	15.28	15.94	15.74	16.39	16.86
	8H	5.76	6.38	6.23	6.82	7.29	15.31	15.92	15.78	16.37	16.84
	12H	6.30	6.85	6.79	7.33	7.81	15.37	15.92	15.86	16.40	16.88
8H	4H	5.22	5.84	5.69	6.29	6.76	15.15	15.77	15.62	16.22	16.69
	6H	6.75	7.26	7.26	7.76	8.24	15.23	15.73	15.73	16.23	16.71
	8H	7.56	8.01	8.08	8.53	9.02	15.31	15.77	15.83	16.28	16.77
	12H	8.39	8.79	8.90	9.28	9.86	15.48	15.88	16.00	16.38	16.95
12H	4H	5.41	5.96	5.90	6.44	6.92	15.11	15.66	15.60	16.14	16.62
	6H	7.11	7.56	7.63	8.08	8.57	15.20	15.66	15.72	16.17	16.66
	8H	8.12	8.52	8.63	9.01	9.59	15.34	15.74	15.85	16.23	16.81