

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: P1060902

Luminaire Tested: S124RDR-H575D850-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060902
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-H575D850-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, 80 CRI LEDS
Ballast/Driver: -

Summary

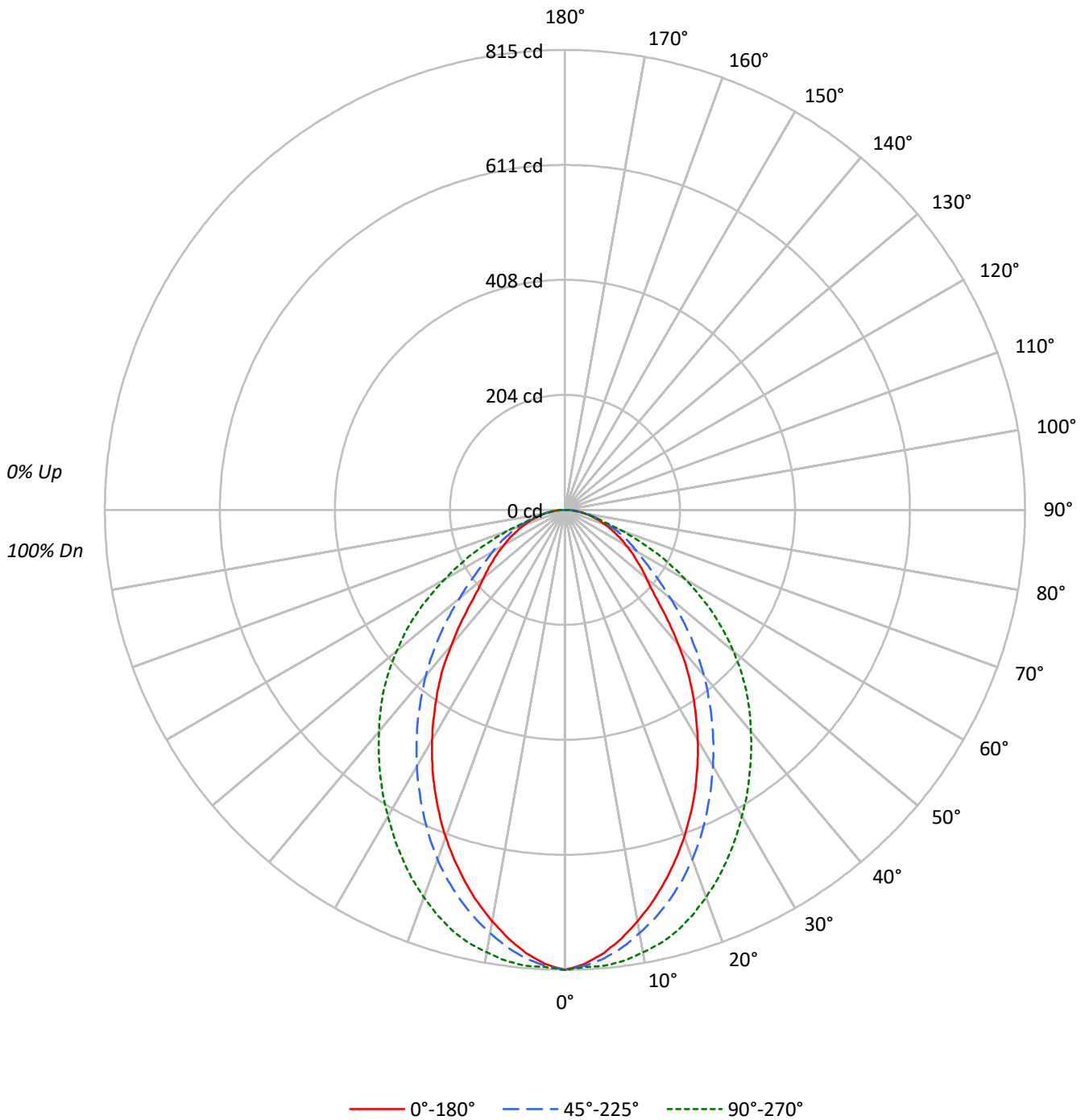
Lumens per Lamp: N/A
Luminaire Lumens: 1495.9 lumens
Efficiency: N/A
Efficacy: 86.0 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.4
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	
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°	7020	7020	7020
5°	6816	6897	7009
10°	6472	6661	6964
15°	6084	6380	6881
20°	5659	6043	6697
25°	5189	5641	6477
30°	4677	5215	6233
35°	4141	4770	5998
40°	3520	4306	5758
45°	2881	3804	5535
50°	2523	3266	5209
55°	2318	2816	4819
60°	2149	2535	4249
65°	2013	2382	3558
70°	1888	2180	2669
75°	1777	1993	1943
80°	1646	1825	1646
85°	1492	1778	1423

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5535 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.3	5.0
10°-20°	202.7	13.6
20°-30°	277.1	18.5
30°-40°	291.2	19.5
40°-50°	252.7	16.9
50°-60°	190.6	12.7
60°-70°	123.6	8.3
70°-80°	63.4	4.2
80°-90°	19.2	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°	555.1	37.1
0°-40°	846.3	56.6
0°-60°	1289.6	86.2
0°-90°	1495.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1495.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	815	815	815	815	815	
5°	788	799	798	804	811	74
15°	682	699	716	748	772	191
25°	546	566	594	639	682	250
35°	394	416	454	514	571	245
45°	237	259	312	390	454	186
55°	154	159	188	266	321	139
65°	99	101	117	141	175	98
75°	53	60	60	61	58	57
85°	15	19	18	17	14	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	815.2	815.2	815.2	815.2	815.2
2.5°	805.8	815.9	808.7	810.2	810.9
5°	788.5	799.3	797.9	804.4	810.9
7.5°	766.1	779.1	782.0	795.0	805.8
10°	740.2	754.6	761.8	782.7	796.4
12.5°	712.8	727.2	740.2	766.9	786.3
15°	682.5	699.1	715.6	748.1	771.9
17.5°	650.7	668.0	689.0	724.3	752.4
20°	617.5	634.9	659.4	697.6	730.8
22.5°	582.2	601.7	627.6	668.8	707.7
25°	546.1	565.6	593.7	639.2	681.7
27.5°	508.6	528.8	559.1	609.6	655.1
30°	470.4	492.0	524.5	577.9	626.9
32.5°	431.4	454.5	489.1	546.1	599.5
35°	393.9	415.5	453.8	514.4	570.6
37.5°	354.9	376.6	417.7	483.4	541.8
40°	313.1	336.9	383.1	450.9	512.2
42.5°	274.1	297.9	347.7	419.9	484.1
45°	236.6	259.0	312.4	390.3	454.5
47.5°	207.8	223.6	277.0	361.4	422.8
50°	188.3	195.5	243.8	329.7	388.8
52.5°	171.0	176.7	213.5	297.9	355.7
55°	154.4	158.7	187.6	266.2	321.0
57.5°	140.0	142.1	164.5	234.5	283.5
60°	124.8	127.7	147.2	202.0	246.7
62.5°	112.5	114.0	132.0	171.0	209.9
65°	98.8	101.0	116.9	141.4	174.6
67.5°	86.6	90.2	101.0	115.4	137.8
70°	75.0	80.1	86.6	93.8	106.0
72.5°	64.2	70.0	73.6	76.5	74.3
75°	53.4	59.9	59.9	60.6	58.4
77.5°	43.3	49.1	48.3	47.6	44.7
80°	33.2	38.2	36.8	36.1	33.2
82.5°	24.5	28.1	26.7	26.0	22.4
85°	15.1	18.8	18.0	17.3	14.4
87.5°	7.2	10.8	10.1	9.4	6.5
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	13.27	14.76	13.64	15.07	15.39	17.01	18.50	17.38	18.81	19.13
	3H	14.94	16.27	15.32	16.60	16.96	18.14	19.47	18.52	19.80	20.16
	4H	15.61	16.86	16.01	17.21	17.59	18.43	19.68	18.83	20.03	20.41
	6H	16.12	17.27	16.53	17.64	18.03	18.63	19.79	19.05	20.15	20.55
	8H	16.29	17.39	16.72	17.78	18.18	18.69	19.79	19.12	20.18	20.58
	12H	16.41	17.46	16.84	17.84	18.27	18.72	19.77	19.15	20.15	20.58
4H	2H	14.07	15.31	14.47	15.66	16.04	17.18	18.43	17.58	18.78	19.16
	3H	15.94	16.97	16.35	17.37	17.78	18.51	19.54	18.92	19.94	20.35
	4H	16.74	17.67	17.18	18.09	18.53	18.92	19.86	19.36	20.27	20.71
	6H	17.39	18.20	17.84	18.64	19.10	19.25	20.06	19.70	20.50	20.96
	8H	17.61	18.37	18.07	18.81	19.28	19.34	20.10	19.81	20.54	21.01
	12H	17.77	18.45	18.26	18.93	19.40	19.41	20.09	19.90	20.57	21.04
8H	4H	17.09	17.85	17.55	18.29	18.76	19.06	19.81	19.52	20.26	20.73
	6H	17.88	18.51	18.38	19.00	19.48	19.48	20.10	19.97	20.59	21.07
	8H	18.20	18.76	18.71	19.27	19.76	19.63	20.20	20.15	20.71	21.19
	12H	18.46	18.96	18.97	19.45	20.02	19.77	20.27	20.28	20.76	21.33
12H	4H	17.12	17.80	17.60	18.28	18.75	19.06	19.74	19.55	20.22	20.69
	6H	17.94	18.50	18.46	19.01	19.50	19.50	20.06	20.01	20.57	21.06
	8H	18.33	18.82	18.84	19.32	19.88	19.71	20.20	20.22	20.70	21.26