

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: P1060893

Luminaire Tested: S124RDR-H575D840-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060893
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-H575D840-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: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

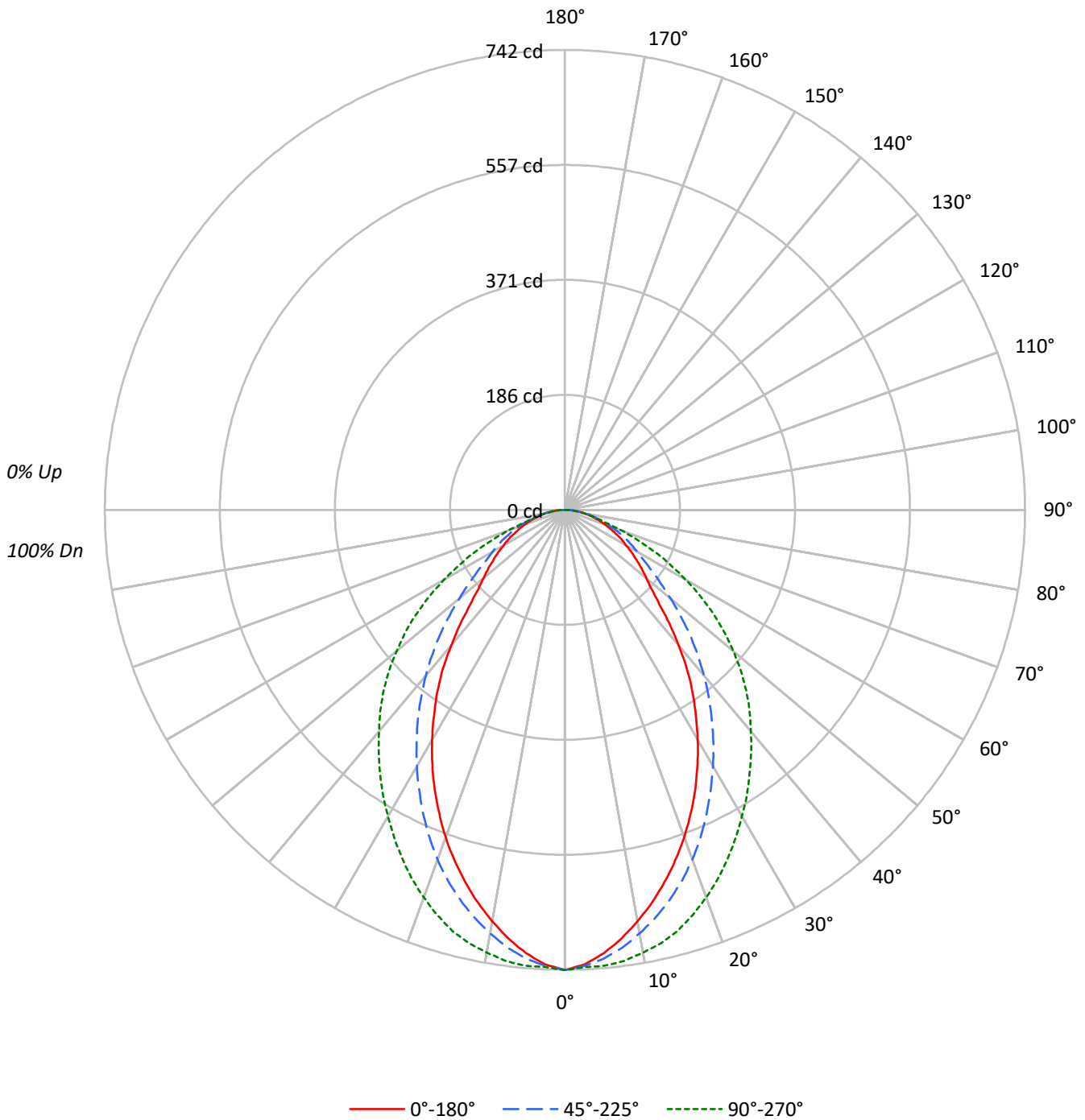
Lumens per Lamp: N/A
Luminaire Lumens: 1362.1 lumens
Efficiency: N/A
Efficacy: 78.3 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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				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°	6392	6392	6392
5°	6206	6281	6383
10°	5893	6066	6342
15°	5541	5810	6266
20°	5153	5502	6098
25°	4725	5137	5898
30°	4259	4749	5677
35°	3771	4344	5462
40°	3205	3921	5243
45°	2624	3465	5040
50°	2298	2974	4744
55°	2111	2564	4388
60°	1956	2308	3870
65°	1834	2168	3240
70°	1720	1984	2432
75°	1617	1813	1770
80°	1498	1661	1498
85°	1363	1620	1294

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5040 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.6	5.0
10°-20°	184.6	13.6
20°-30°	252.3	18.5
30°-40°	265.2	19.5
40°-50°	230.1	16.9
50°-60°	173.6	12.7
60°-70°	112.5	8.3
70°-80°	57.7	4.2
80°-90°	17.5	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°	505.5	37.1
0°-40°	770.7	56.6
0°-60°	1174.4	86.2
0°-90°	1362.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1362.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	742	742	742	742	742	
5°	718	728	727	732	738	67
15°	622	637	652	681	703	174
25°	497	515	541	582	621	228
35°	359	378	413	468	520	223
45°	216	236	284	355	414	170
55°	141	144	171	242	292	127
65°	90	92	106	129	159	90
75°	49	54	54	55	53	52
85°	14	17	16	16	13	16
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	742.3	742.3	742.3	742.3	742.3
2.5°	733.8	743.0	736.4	737.7	738.4
5°	718.0	727.9	726.6	732.5	738.4
7.5°	697.7	709.5	712.1	723.9	733.8
10°	674.0	687.2	693.7	712.8	725.3
12.5°	649.0	662.2	674.0	698.3	716.1
15°	621.5	636.6	651.7	681.2	702.9
17.5°	592.6	608.3	627.4	659.6	685.2
20°	562.3	578.1	600.4	635.3	665.5
22.5°	530.1	547.9	571.5	609.0	644.5
25°	497.3	515.0	540.7	582.0	620.8
27.5°	463.1	481.5	509.1	555.1	596.5
30°	428.3	448.0	477.6	526.2	570.9
32.5°	392.8	413.9	445.4	497.3	545.9
35°	358.7	378.4	413.2	468.4	519.6
37.5°	323.2	342.9	380.4	440.1	493.4
40°	285.1	306.8	348.8	410.6	466.4
42.5°	249.6	271.3	316.6	382.3	440.8
45°	215.5	235.8	284.5	355.4	413.9
47.5°	189.2	203.6	252.3	329.1	385.0
50°	171.5	178.0	222.0	300.2	354.1
52.5°	155.7	160.9	194.5	271.3	323.9
55°	140.6	144.5	170.8	242.4	292.3
57.5°	127.4	129.4	149.8	213.5	258.2
60°	113.6	116.3	134.0	183.9	224.7
62.5°	102.5	103.8	120.2	155.7	191.2
65°	90.0	92.0	106.4	128.8	159.0
67.5°	78.8	82.1	92.0	105.1	125.5
70°	68.3	72.9	78.8	85.4	96.6
72.5°	58.5	63.7	67.0	69.6	67.7
75°	48.6	54.5	54.5	55.2	53.2
77.5°	39.4	44.7	44.0	43.4	40.7
80°	30.2	34.8	33.5	32.8	30.2
82.5°	22.3	25.6	24.3	23.6	20.4
85°	13.8	17.1	16.4	15.8	13.1
87.5°	6.6	9.9	9.2	8.5	5.9
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	12.95	14.43	13.31	14.75	15.06	16.69	18.17	17.05	18.49	18.80
	3H	14.61	15.95	14.99	16.27	16.64	17.81	19.14	18.19	19.47	19.84
	4H	15.28	16.53	15.68	16.88	17.26	18.11	19.36	18.51	19.71	20.09
	6H	15.79	16.94	16.20	17.31	17.70	18.31	19.46	18.72	19.83	20.22
	8H	15.96	17.06	16.39	17.45	17.85	18.36	19.46	18.79	19.85	20.25
	12H	16.08	17.13	16.51	17.52	17.94	18.40	19.45	18.83	19.83	20.26
4H	2H	13.74	14.99	14.14	15.34	15.72	16.85	18.10	17.25	18.45	18.83
	3H	15.61	16.65	16.02	17.05	17.45	18.18	19.22	18.59	19.62	20.02
	4H	16.42	17.35	16.85	17.76	18.20	18.60	19.53	19.03	19.95	20.39
	6H	17.06	17.87	17.52	18.31	18.77	18.92	19.73	19.38	20.17	20.63
	8H	17.28	18.04	17.74	18.48	18.95	19.01	19.77	19.48	20.22	20.68
	12H	17.45	18.12	17.93	18.60	19.07	19.09	19.76	19.57	20.24	20.71
8H	4H	16.76	17.52	17.23	17.96	18.43	18.73	19.49	19.20	19.93	20.40
	6H	17.55	18.18	18.05	18.67	19.15	19.15	19.78	19.65	20.27	20.75
	8H	17.87	18.43	18.39	18.94	19.43	19.31	19.87	19.82	20.38	20.87
	12H	18.13	18.63	18.64	19.12	19.69	19.45	19.94	19.96	20.44	21.00
12H	4H	16.79	17.47	17.28	17.95	18.42	18.74	19.41	19.22	19.89	20.36
	6H	17.61	18.18	18.13	18.69	19.18	19.17	19.73	19.69	20.24	20.73
	8H	18.00	18.50	18.51	18.99	19.55	19.38	19.88	19.89	20.37	20.94