

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: P1060882

Luminaire Tested: S124RDR-H575D835-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060882
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-H575D835-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: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

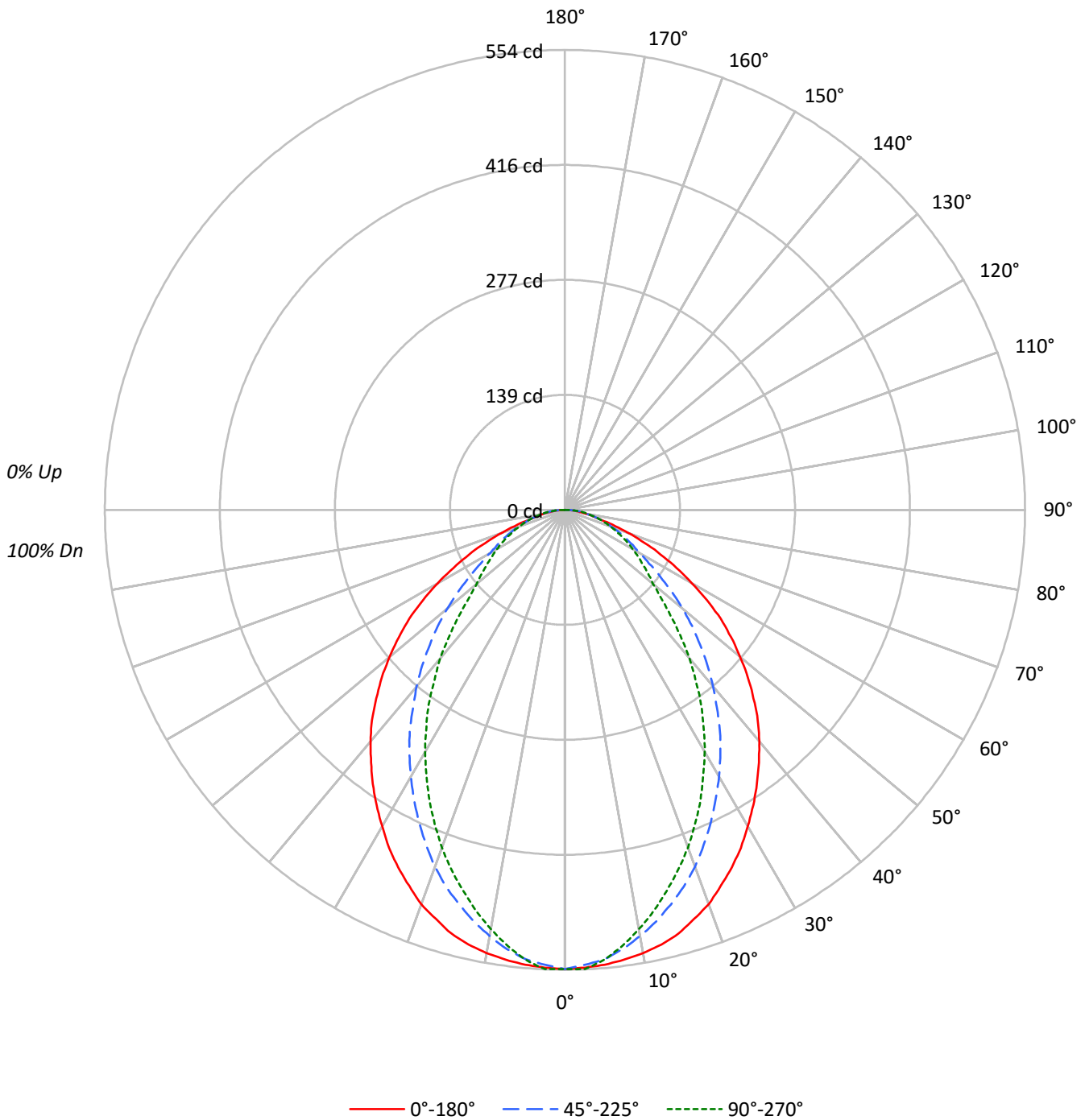
Lumens per Lamp: N/A
Luminaire Lumens: 1066.7 lumens
Efficiency: N/A
Efficacy: 61.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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				
RC	80					70					50					30				
RW	70	50	30	10	70	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°	4764	4764	4764
5°	4754	4698	4703
10°	4741	4559	4485
15°	4712	4387	4231
20°	4635	4193	3967
25°	4515	3947	3668
30°	4376	3691	3348
35°	4236	3424	3007
40°	4092	3121	2624
45°	3910	2802	2193
50°	3692	2473	1855
55°	3435	2099	1717
60°	3045	1781	1624
65°	2596	1642	1536
70°	2029	1523	1458
75°	1384	1407	1407
80°	1195	1324	1354
85°	1028	1284	1413

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3910 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.5	4.8
10°-20°	139.8	13.1
20°-30°	194.0	18.2
30°-40°	208.0	19.5
40°-50°	184.3	17.3
50°-60°	138.9	13.0
60°-70°	89.9	8.4
70°-80°	46.2	4.3
80°-90°	14.2	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°	385.3	36.1
0°-40°	593.3	55.6
0°-60°	916.5	85.9
0°-90°	1066.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1066.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	553	553	553	553	553	
5°	550	551	544	544	544	52
15°	528	517	492	480	475	149
25°	475	450	415	393	386	219
35°	403	367	326	296	286	252
45°	321	280	230	194	180	248
55°	229	190	140	118	114	203
65°	127	103	81	76	75	126
75°	42	44	42	42	42	49
85°	10	11	13	14	14	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	553.2	553.2	553.2	553.2	553.2
2.5°	551.9	553.9	548.7	552.6	553.9
5°	550.0	550.6	543.5	544.1	544.1
7.5°	546.7	545.4	533.7	530.5	529.8
10°	542.2	538.3	521.4	514.9	512.9
12.5°	536.3	529.2	507.7	498.6	494.7
15°	528.5	516.8	492.1	479.8	474.6
17.5°	516.8	501.9	475.9	460.2	454.4
20°	505.8	485.6	457.6	438.1	432.9
22.5°	490.2	468.7	436.8	416.0	409.5
25°	475.2	449.8	415.4	393.3	386.1
27.5°	458.9	430.3	393.3	369.9	360.8
30°	440.1	409.5	371.2	346.5	336.7
32.5°	421.9	389.4	348.4	321.1	310.7
35°	403.0	366.6	325.7	296.4	286.0
37.5°	383.5	345.2	300.3	271.7	258.1
40°	364.0	323.7	277.6	245.1	233.4
42.5°	343.9	301.6	254.2	220.4	205.4
45°	321.1	279.5	230.1	194.4	180.1
47.5°	299.0	258.1	208.0	169.0	156.0
50°	275.6	235.3	184.6	146.9	138.5
52.5°	252.2	211.9	161.9	130.0	126.1
55°	228.8	190.5	139.8	117.7	114.4
57.5°	202.8	168.4	120.3	106.6	104.0
60°	176.8	144.3	103.4	96.2	94.3
62.5°	151.5	123.5	91.7	85.8	84.5
65°	127.4	102.7	80.6	76.1	75.4
67.5°	104.0	84.5	70.2	67.6	66.3
70°	80.6	67.6	60.5	59.2	57.9
72.5°	59.8	54.6	51.4	50.7	50.1
75°	41.6	43.6	42.3	42.3	42.3
77.5°	33.2	33.8	34.5	35.1	34.5
80°	24.1	26.0	26.7	28.0	27.3
82.5°	16.9	18.2	20.2	20.8	21.5
85°	10.4	11.1	13.0	14.3	14.3
87.5°	4.6	5.2	6.5	7.8	8.5
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	15.86	17.36	16.23	17.68	17.99	12.43	13.92	12.79	14.24	14.55
	3H	17.07	18.41	17.45	18.74	19.10	14.12	15.47	14.50	15.79	16.16
	4H	17.37	18.63	17.77	18.98	19.36	14.80	16.06	15.20	16.41	16.79
	6H	17.58	18.74	17.99	19.11	19.50	15.35	16.51	15.76	16.88	17.27
	8H	17.64	18.74	18.06	19.13	19.53	15.57	16.68	16.00	17.07	17.47
	12H	17.67	18.73	18.10	19.11	19.54	15.74	16.80	16.17	17.18	17.61
4H	2H	16.00	17.26	16.40	17.61	17.99	13.09	14.35	13.49	14.69	15.07
	3H	17.41	18.45	17.82	18.85	19.25	15.00	16.04	15.41	16.44	16.84
	4H	17.83	18.77	18.27	19.19	19.63	15.80	16.74	16.23	17.16	17.60
	6H	18.16	18.98	18.62	19.42	19.88	16.49	17.31	16.95	17.75	18.21
	8H	18.26	19.02	18.72	19.47	19.93	16.76	17.53	17.23	17.97	18.44
	12H	18.33	19.01	18.81	19.49	19.96	16.99	17.68	17.48	18.15	18.63
8H	4H	17.96	18.73	18.42	19.17	19.64	16.12	16.88	16.58	17.33	17.79
	6H	18.38	19.01	18.88	19.51	19.98	16.95	17.58	17.44	18.07	18.55
	8H	18.54	19.11	19.05	19.62	20.11	17.31	17.88	17.83	18.39	18.88
	12H	18.67	19.17	19.18	19.66	20.23	17.65	18.15	18.16	18.64	19.21
12H	4H	17.97	18.65	18.45	19.13	19.60	16.15	16.83	16.63	17.31	17.78
	6H	18.41	18.98	18.92	19.49	19.97	17.01	17.58	17.52	18.09	18.57
	8H	18.62	19.12	19.13	19.61	20.18	17.44	17.94	17.95	18.43	19.00