

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: P1060881

Luminaire Tested: S124RDR-H575D835-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060881
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-74)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H575D835-X4F0-XX-UDD-SVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

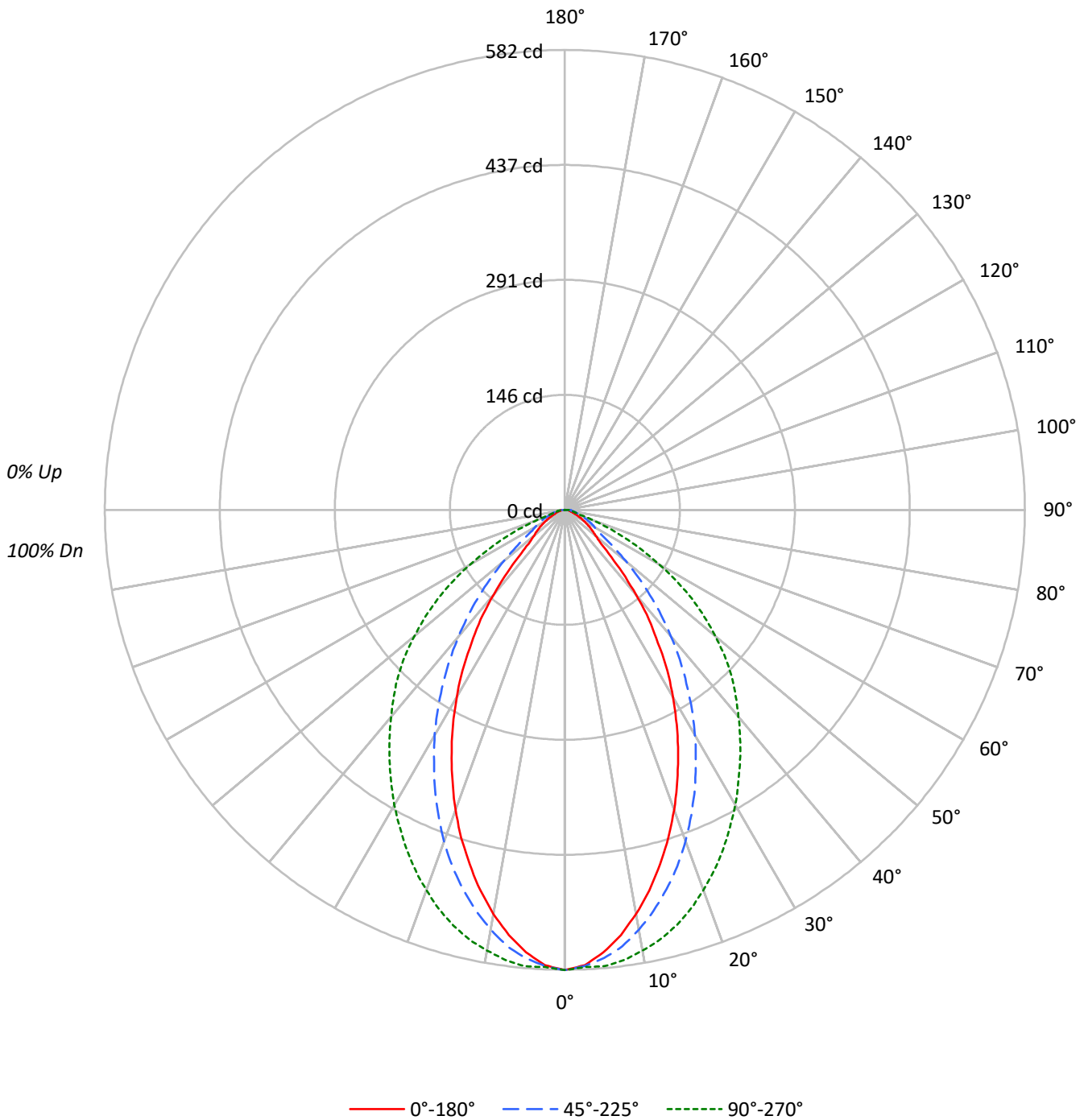
Lumens per Lamp: N/A
Luminaire Lumens: 824.4 lumens
Efficiency: N/A
Efficacy: 47.4 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89				89
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79				79
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70				70
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63				63
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57				57
6	79	67	60	54	77	67	59	54	65	59	54	63	58	53	62	57	53	51				51
7	74	62	55	49	72	61	54	49	60	54	49	59	53	49	57	52	48	47				47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43				43
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39				39
10	62	50	43	38	60	49	43	38	49	42	38	48	42	38	47	42	38	36				36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5015	5015	5015
5°	4861	4922	5012
10°	4541	4717	4951
15°	4142	4432	4856
20°	3703	4091	4694
25°	3222	3698	4502
30°	2717	3274	4291
35°	2161	2818	4064
40°	1573	2348	3841
45°	951	1855	3638
50°	681	1342	3330
55°	577	908	2941
60°	470	741	2377
65°	371	662	1710
70°	312	556	901
75°	283	519	456
80°	293	516	451
85°	385	771	514

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3638 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.6	6.5
10°-20°	140.5	17.0
20°-30°	182.2	22.1
30°-40°	175.4	21.3
40°-50°	130.5	15.8
50°-60°	80.3	9.7
60°-70°	39.4	4.8
70°-80°	15.4	1.9
80°-90°	7.0	0.9
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°	376.4	45.7
0°-40°	551.8	66.9
0°-60°	762.6	92.5
0°-90°	824.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	824.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	582	582	582	582	582	
5°	562	571	569	575	580	52
15°	465	480	497	527	545	130
25°	339	357	389	438	474	155
35°	206	225	268	335	387	129
45°	78	97	152	235	299	65
55°	38	40	60	138	196	35
65°	18	20	32	52	84	19
75°	8	15	16	14	14	9
85°	4	7	8	8	5	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	582.4	582.4	582.4	582.4	582.4
2.5°	576.6	583.1	577.9	578.5	579.2
5°	562.3	570.7	569.4	574.6	579.8
7.5°	542.7	552.5	557.1	567.5	574.6
10°	519.3	530.4	539.5	556.4	566.2
12.5°	493.3	506.3	519.3	542.1	557.1
15°	464.6	479.6	497.2	527.1	544.7
17.5°	435.4	450.3	473.1	507.6	529.7
20°	404.1	420.4	446.4	484.8	512.2
22.5°	371.6	389.2	417.8	461.4	493.9
25°	339.1	357.3	389.2	438.0	473.8
27.5°	306.5	324.1	358.6	413.2	452.3
30°	273.3	291.5	329.3	386.6	431.5
32.5°	241.4	258.4	298.7	361.2	408.7
35°	205.6	225.2	268.1	335.1	386.6
37.5°	175.1	192.6	238.8	309.1	364.4
40°	139.9	159.4	208.9	283.7	341.7
42.5°	107.4	126.9	180.3	258.4	320.2
45°	78.1	97.0	152.3	234.9	298.7
47.5°	59.2	70.3	124.9	212.2	274.6
50°	50.8	54.0	100.2	187.4	248.6
52.5°	44.9	46.2	78.1	162.7	222.6
55°	38.4	39.7	60.5	138.0	195.9
57.5°	32.5	33.2	48.8	114.5	167.2
60°	27.3	28.0	43.0	91.8	138.0
62.5°	22.8	23.4	38.4	70.9	110.0
65°	18.2	19.5	32.5	52.1	83.9
67.5°	15.0	17.6	27.3	36.4	58.6
70°	12.4	16.9	22.1	25.4	35.8
72.5°	10.4	15.6	18.9	18.2	17.6
75°	8.5	15.0	15.6	14.3	13.7
77.5°	7.2	13.0	13.0	11.7	11.1
80°	5.9	10.4	10.4	10.4	9.1
82.5°	5.2	8.5	9.1	9.1	7.2
85°	3.9	7.2	7.8	7.8	5.2
87.5°	2.6	6.5	7.2	6.5	3.9
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	5.39	6.73	5.75	7.04	7.36	14.55	15.90	14.92	16.21	16.52
	3H	6.50	7.69	6.88	8.02	8.39	15.06	16.25	15.44	16.58	16.95
	4H	7.02	8.13	7.42	8.48	8.86	15.08	16.19	15.48	16.54	16.92
	6H	7.46	8.48	7.87	8.85	9.24	15.09	16.11	15.51	16.48	16.88
	8H	7.65	8.61	8.08	9.01	9.41	15.10	16.06	15.53	16.45	16.86
	12H	7.83	8.75	8.26	9.14	9.57	15.10	16.02	15.53	16.41	16.84
4H	2H	6.53	7.64	6.93	7.99	8.37	14.45	15.56	14.85	15.91	16.29
	3H	7.87	8.78	8.29	9.19	9.59	15.04	15.94	15.45	16.35	16.75
	4H	8.61	9.42	9.04	9.84	10.28	15.09	15.91	15.53	16.33	16.77
	6H	9.22	9.92	9.68	10.37	10.83	15.17	15.87	15.63	16.32	16.78
	8H	9.46	10.12	9.93	10.57	11.04	15.20	15.86	15.67	16.30	16.77
	12H	9.70	10.28	10.19	10.76	11.24	15.24	15.82	15.73	16.30	16.78
8H	4H	9.08	9.73	9.54	10.18	10.65	15.05	15.71	15.52	16.15	16.63
	6H	9.93	10.46	10.43	10.96	11.44	15.18	15.72	15.68	16.21	16.69
	8H	10.33	10.82	10.86	11.33	11.82	15.26	15.75	15.78	16.26	16.75
	12H	10.76	11.19	11.27	11.68	12.25	15.38	15.81	15.90	16.31	16.88
12H	4H	9.13	9.71	9.61	10.19	10.67	15.02	15.61	15.51	16.09	16.56
	6H	10.06	10.54	10.58	11.06	11.55	15.16	15.64	15.68	16.16	16.65
	8H	10.58	11.01	11.10	11.50	12.08	15.29	15.72	15.81	16.22	16.79