

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: P1060798

Luminaire Tested: S124RDR-H350D835-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060798
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-38)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H350D835-X4F0-XX-UDD-SVL-B
Description: DEFINE 4 BLACK 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

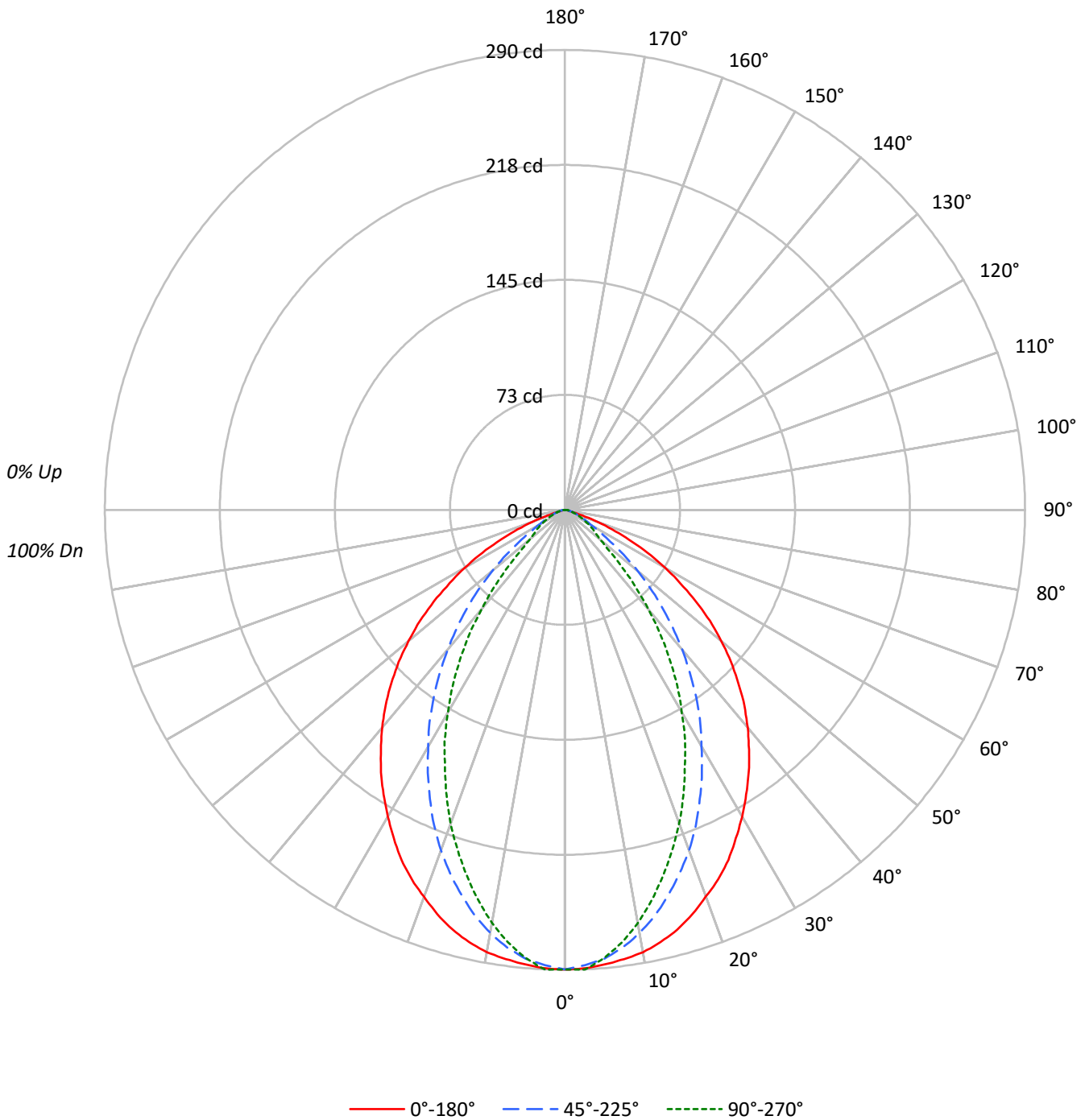
Lumens per Lamp: N/A
Luminaire Lumens: 427.3 lumens
Efficiency: N/A
Efficacy: 36.5 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.87 / 1.02
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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	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	97	98	96	94	95	93	92	90
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80
3	97	89	82	77	95	87	81	76	84	79	75	82	78	74	79	76	73	71
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63
5	84	74	66	61	82	73	66	60	71	65	60	69	64	59	67	62	59	57
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	48	47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	44	43
9	65	53	46	41	64	53	46	41	52	46	41	51	45	41	50	45	41	39
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2496	2496	2496
5°	2488	2456	2452
10°	2477	2370	2313
15°	2442	2242	2129
20°	2379	2095	1930
25°	2315	1912	1699
30°	2220	1713	1466
35°	2125	1515	1210
40°	2014	1289	917
45°	1884	1053	616
50°	1723	798	383
55°	1513	527	324
60°	1252	324	267
65°	907	249	216
70°	493	184	164
75°	110	136	150
80°	79	99	119
85°	79	79	119

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1884 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.8	6.3
10°-20°	71.3	16.7
20°-30°	94.5	22.1
30°-40°	93.8	21.9
40°-50°	72.2	16.9
50°-60°	43.0	10.1
60°-70°	19.5	4.6
70°-80°	5.1	1.2
80°-90°	1.1	0.3
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°	192.6	45.1
0°-40°	286.4	67.0
0°-60°	401.6	94.0
0°-90°	427.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	427.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	290	290	290	290	290	
5°	288	288	284	284	284	27
15°	274	267	252	243	239	77
25°	244	226	201	184	179	112
35°	202	177	144	122	115	126
45°	155	124	86	60	51	119
55°	101	72	35	22	22	90
65°	44	26	12	11	11	45
75°	3	4	4	4	4	7
85°	1	1	1	1	1	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	289.8	289.8	289.8	289.8	289.8
2.5°	289.4	289.8	287.4	289.4	290.2
5°	287.8	288.2	284.1	284.1	283.7
7.5°	285.7	284.9	278.4	275.9	275.1
10°	283.3	280.4	271.0	266.1	264.5
12.5°	279.2	274.7	262.1	255.1	252.3
15°	273.9	267.0	251.5	242.9	238.8
17.5°	267.4	258.8	240.4	229.4	224.9
20°	259.6	248.2	228.6	214.7	210.6
22.5°	252.3	238.0	215.5	199.6	195.1
25°	243.7	226.1	201.2	184.5	178.8
27.5°	233.5	214.7	187.0	169.8	164.1
30°	223.3	202.5	172.3	154.3	147.4
32.5°	212.7	189.8	158.8	138.4	131.8
35°	202.1	176.8	144.1	122.1	115.1
37.5°	190.6	163.7	129.4	106.5	98.8
40°	179.2	151.0	114.7	91.4	81.6
42.5°	167.4	138.0	100.4	75.9	66.1
45°	154.7	124.5	86.5	60.4	50.6
47.5°	142.1	111.8	72.7	45.3	36.3
50°	128.6	98.4	59.6	33.1	28.6
52.5°	115.1	85.3	46.5	25.7	24.5
55°	100.8	71.8	35.1	22.0	21.6
57.5°	86.1	59.6	25.3	19.2	18.4
60°	72.7	48.2	18.8	16.3	15.5
62.5°	58.8	36.3	15.5	13.5	12.7
65°	44.5	26.5	12.2	10.6	10.6
67.5°	32.2	18.0	9.8	8.6	8.2
70°	19.6	11.0	7.3	6.9	6.5
72.5°	9.8	6.5	5.7	5.3	5.3
75°	3.3	4.1	4.1	4.5	4.5
77.5°	2.4	2.9	2.9	3.3	3.3
80°	1.6	2.0	2.0	2.4	2.4
82.5°	1.2	1.2	1.6	1.6	2.0
85°	0.8	0.8	0.8	1.2	1.2
87.5°	0.4	0.4	0.4	0.8	0.8
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	12.30	13.63	12.66	13.94	14.26	3.85	5.19	4.22	5.50	5.81
	3H	12.81	13.99	13.19	14.32	14.68	4.67	5.85	5.05	6.18	6.54
	4H	12.77	13.87	13.17	14.22	14.60	4.95	6.05	5.35	6.40	6.78
	6H	12.71	13.71	13.12	14.08	14.48	5.12	6.13	5.54	6.50	6.89
	8H	12.67	13.62	13.10	14.01	14.42	5.18	6.14	5.61	6.53	6.93
	12H	12.63	13.54	13.06	13.92	14.35	5.22	6.14	5.66	6.52	6.95
4H	2H	12.14	13.24	12.54	13.59	13.97	4.29	5.39	4.69	5.74	6.12
	3H	12.69	13.59	13.10	13.99	14.39	5.25	6.14	5.66	6.55	6.95
	4H	12.66	13.46	13.10	13.88	14.32	5.62	6.41	6.05	6.83	7.27
	6H	12.61	13.29	13.07	13.74	14.21	5.87	6.55	6.33	7.00	7.46
	8H	12.56	13.20	13.03	13.65	14.12	5.95	6.59	6.42	7.04	7.51
	12H	12.52	13.09	13.01	13.57	14.04	6.02	6.58	6.51	7.07	7.54
8H	4H	12.55	13.19	13.02	13.64	14.11	5.71	6.34	6.17	6.79	7.26
	6H	12.49	13.01	12.99	13.51	13.99	6.01	6.53	6.51	7.03	7.51
	8H	12.44	12.91	12.96	13.42	13.92	6.14	6.60	6.66	7.12	7.61
	12H	12.41	12.82	12.92	13.32	13.89	6.27	6.68	6.78	7.17	7.75
12H	4H	12.51	13.07	12.99	13.56	14.03	5.68	6.24	6.16	6.73	7.20
	6H	12.43	12.90	12.95	13.42	13.91	5.99	6.46	6.51	6.97	7.47
	8H	12.41	12.82	12.92	13.31	13.89	6.15	6.57	6.67	7.06	7.63