

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1060396

Luminaire Tested: S124RDRP-S350D835-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060396
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: S124RDRP-S350D835-X4F0-XX-UDD-WVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

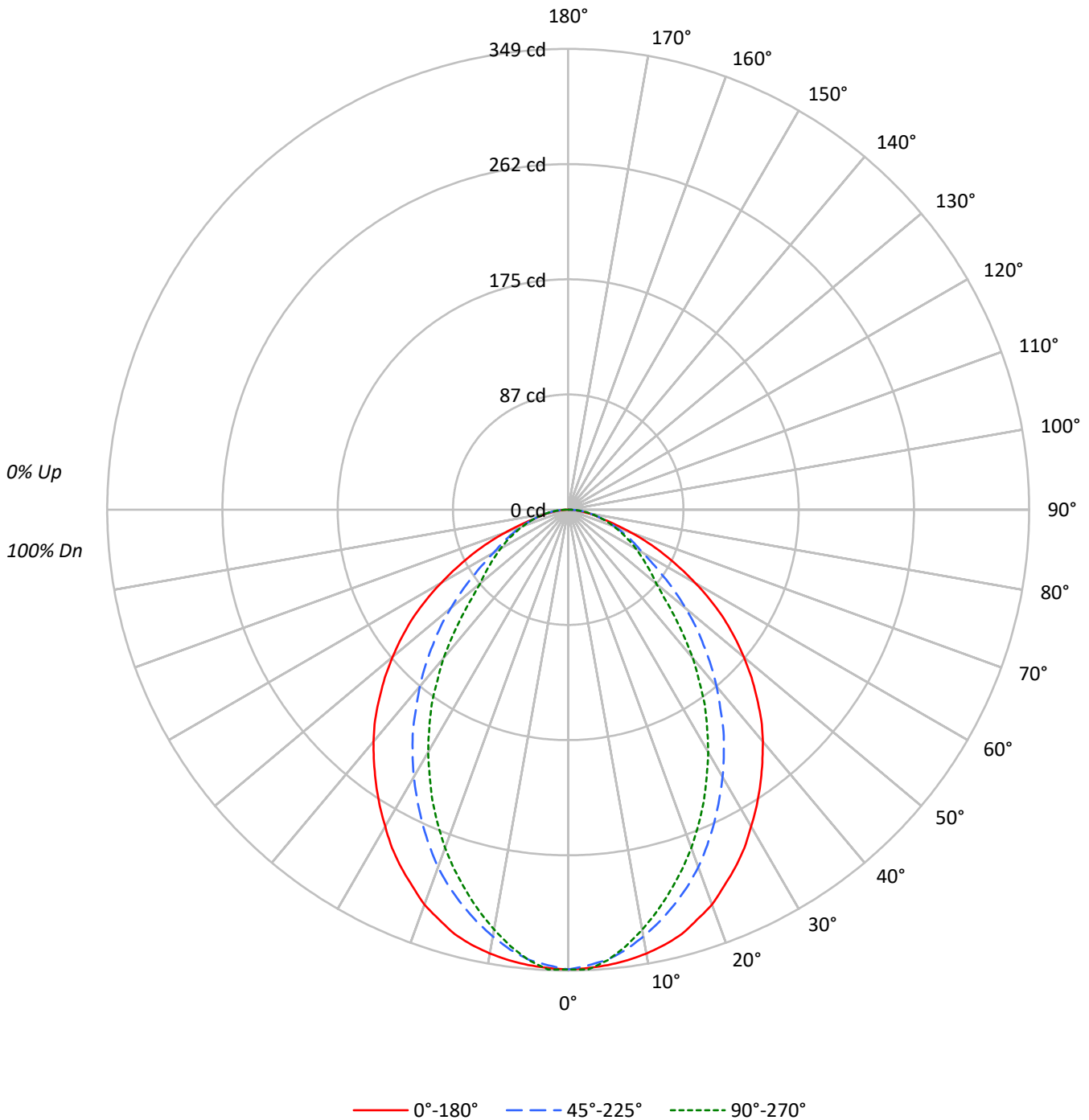
Lumens per Lamp: N/A
Luminaire Lumens: 671.5 lumens
Efficiency: N/A
Efficacy: 53.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
Input Voltage (V): 120
Input Current (A_{in}): 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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CATALOG NUMBER: S124RDRP-S350D835-X4F0-XX-UDD-WVL-B

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	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°	2998	2998	2998
5°	2993	2957	2961
10°	2984	2870	2823
15°	2966	2762	2663
20°	2918	2640	2497
25°	2842	2485	2310
30°	2754	2324	2108
35°	2667	2155	1893
40°	2576	1964	1651
45°	2461	1765	1381
50°	2324	1557	1168
55°	2162	1321	1081
60°	1917	1121	1021
65°	1634	1033	968
70°	1276	959	916
75°	872	885	885
80°	749	833	853
85°	642	810	889

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2461 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.4	4.8
10°-20°	88.0	13.1
20°-30°	122.2	18.2
30°-40°	130.9	19.5
40°-50°	116.0	17.3
50°-60°	87.4	13.0
60°-70°	56.6	8.4
70°-80°	29.1	4.3
80°-90°	8.9	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°	242.5	36.1
0°-40°	373.5	55.6
0°-60°	576.9	85.9
0°-90°	671.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	671.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	348	348	348	348	348	
5°	346	347	342	342	342	33
15°	333	325	310	302	299	94
25°	299	283	262	248	243	138
35°	254	231	205	187	180	159
45°	202	176	145	122	113	156
55°	144	120	88	74	72	128
65°	80	65	51	48	48	80
75°	26	27	27	27	27	31
85°	6	7	8	9	9	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	348.2	348.2	348.2	348.2	348.2
2.5°	347.4	348.6	345.4	347.8	348.6
5°	346.2	346.6	342.1	342.5	342.5
7.5°	344.1	343.3	336.0	333.9	333.5
10°	341.3	338.8	328.2	324.1	322.9
12.5°	337.6	333.1	319.6	313.9	311.4
15°	332.7	325.3	309.8	302.0	298.7
17.5°	325.3	315.9	299.5	289.7	286.0
20°	318.4	305.7	288.1	275.8	272.5
22.5°	308.5	295.0	275.0	261.9	257.8
25°	299.1	283.2	261.5	247.6	243.1
27.5°	288.9	270.9	247.6	232.8	227.1
30°	277.0	257.8	233.7	218.1	212.0
32.5°	265.6	245.1	219.3	202.1	195.6
35°	253.7	230.8	205.0	186.6	180.1
37.5°	241.4	217.3	189.1	171.0	162.5
40°	229.2	203.8	174.7	154.3	146.9
42.5°	216.5	189.9	160.0	138.7	129.3
45°	202.1	176.0	144.9	122.4	113.4
47.5°	188.2	162.5	130.9	106.4	98.2
50°	173.5	148.1	116.2	92.5	87.2
52.5°	158.8	133.4	101.9	81.8	79.4
55°	144.0	119.9	88.0	74.1	72.0
57.5°	127.7	106.0	75.7	67.1	65.5
60°	111.3	90.8	65.1	60.6	59.3
62.5°	95.3	77.7	57.7	54.0	53.2
65°	80.2	64.7	50.7	47.9	47.5
67.5°	65.5	53.2	44.2	42.6	41.7
70°	50.7	42.6	38.1	37.2	36.4
72.5°	37.6	34.4	32.3	31.9	31.5
75°	26.2	27.4	26.6	26.6	26.6
77.5°	20.9	21.3	21.7	22.1	21.7
80°	15.1	16.4	16.8	17.6	17.2
82.5°	10.6	11.5	12.7	13.1	13.5
85°	6.5	7.0	8.2	9.0	9.0
87.5°	2.9	3.3	4.1	4.9	5.3
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	14.26	15.75	14.62	16.07	16.38	10.82	12.32	11.18	12.63	12.95
	3H	15.46	16.80	15.84	17.13	17.49	12.51	13.86	12.89	14.18	14.55
	4H	15.77	17.03	16.17	17.38	17.75	13.19	14.45	13.59	14.80	15.18
	6H	15.97	17.13	16.38	17.50	17.89	13.74	14.90	14.15	15.27	15.66
	8H	16.03	17.13	16.45	17.52	17.93	13.96	15.07	14.39	15.46	15.86
	12H	16.06	17.12	16.49	17.50	17.93	14.13	15.19	14.56	15.57	16.00
4H	2H	14.40	15.66	14.80	16.00	16.38	11.48	12.74	11.88	13.09	13.47
	3H	15.80	16.84	16.21	17.24	17.65	13.39	14.43	13.80	14.83	15.23
	4H	16.23	17.17	16.66	17.58	18.02	14.19	15.13	14.62	15.55	15.98
	6H	16.55	17.37	17.01	17.81	18.27	14.88	15.70	15.34	16.14	16.60
	8H	16.65	17.41	17.11	17.86	18.32	15.15	15.92	15.62	16.36	16.83
	12H	16.72	17.40	17.20	17.88	18.35	15.38	16.06	15.86	16.54	17.01
8H	4H	16.35	17.12	16.82	17.56	18.03	14.51	15.27	14.97	15.72	16.18
	6H	16.77	17.41	17.27	17.90	18.38	15.34	15.97	15.83	16.46	16.94
	8H	16.93	17.50	17.45	18.01	18.50	15.70	16.27	16.22	16.78	17.27
	12H	17.06	17.56	17.57	18.05	18.62	16.04	16.54	16.55	17.03	17.59
12H	4H	16.36	17.04	16.84	17.52	17.99	14.54	15.22	15.02	15.70	16.17
	6H	16.80	17.37	17.31	17.88	18.37	15.40	15.96	15.91	16.47	16.96
	8H	17.01	17.51	17.52	18.00	18.57	15.83	16.33	16.34	16.82	17.39