

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: P1060462

Luminaire Tested: S124RDRP-S575D830-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1060462
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-39)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDRP-S575D830-X4F0-XX-UDD-BVL-B
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

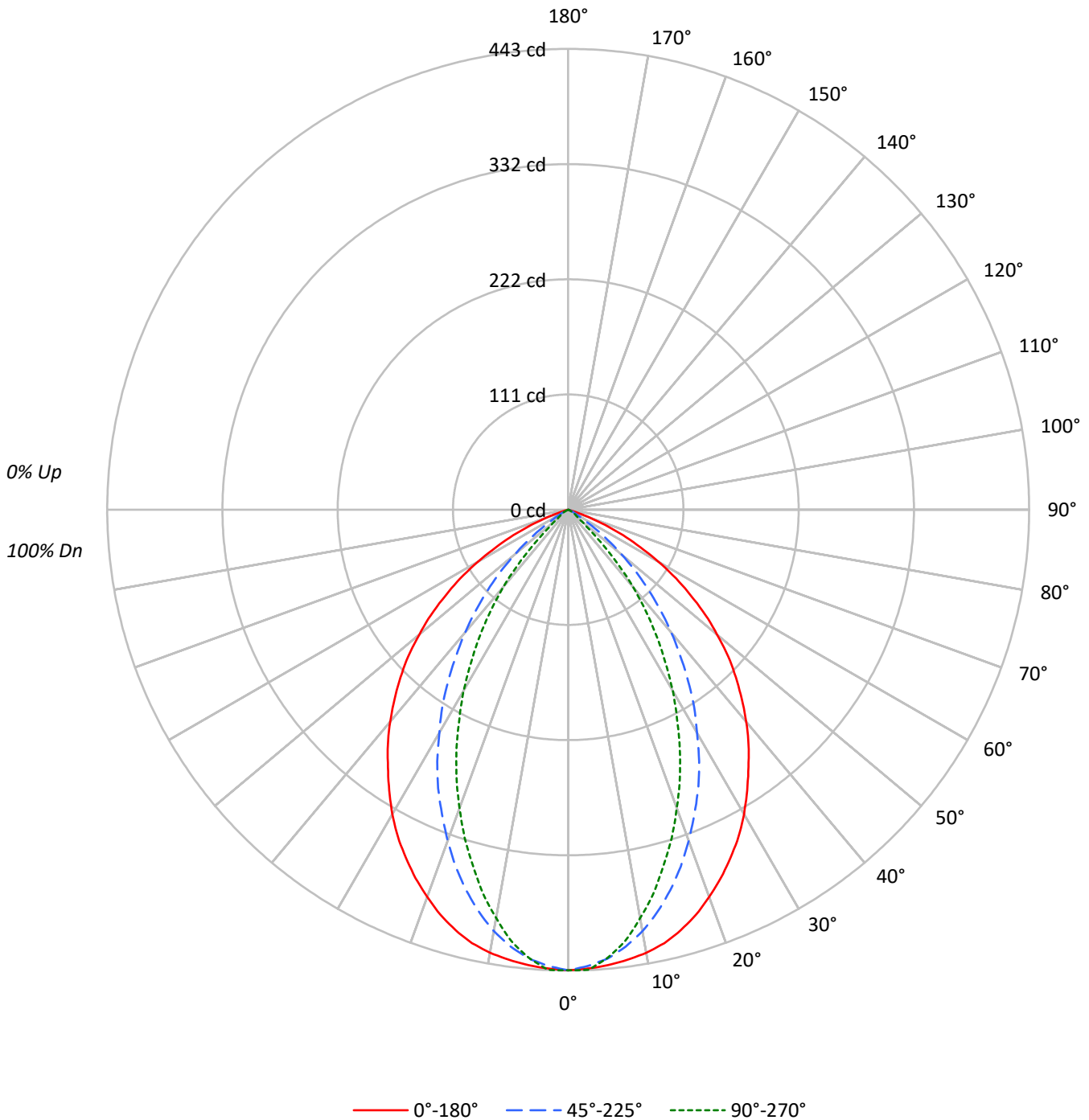
Lumens per Lamp: N/A
Luminaire Lumens: 578.2 lumens
Efficiency: N/A
Efficacy: 29.5 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
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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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	109	106	103	110	107	104	102	103	101	99	99	97	96	96	94	93	91
2	105	99	95	90	103	98	93	89	94	91	87	91	88	86	88	86	84	82
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74
4	92	83	76	71	90	82	76	71	79	74	70	77	73	69	75	71	68	66
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	47	46
9	67	56	49	44	66	56	49	44	54	48	44	54	48	44	53	48	44	42
10	64	52	46	41	63	52	45	41	51	45	41	50	45	41	49	44	41	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3813	3813	3813
5°	3800	3745	3739
10°	3783	3598	3486
15°	3731	3377	3155
20°	3630	3102	2797
25°	3508	2809	2413
30°	3360	2462	1998
35°	3175	2112	1554
40°	2992	1733	1086
45°	2774	1332	538
50°	2504	900	180
55°	2162	461	125
60°	1731	165	88
65°	1186	92	39
70°	531	48	33
75°	0	20	20
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2774 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.9	7.1
10°-20°	107.2	18.5
20°-30°	138.8	24.0
30°-40°	131.8	22.8
40°-50°	93.4	16.1
50°-60°	47.9	8.3
60°-70°	16.8	2.9
70°-80°	1.4	0.2
80°-90°	0.0	0.0
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°	286.9	49.6
0°-40°	418.7	72.4
0°-60°	560.0	96.9
0°-90°	578.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	578.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	443	443	443	443	443	
5°	440	440	433	433	433	42
15°	418	406	379	361	354	118
25°	369	340	296	264	254	170
35°	302	258	201	162	148	189
45°	228	175	109	63	44	175
55°	144	95	31	9	8	129
65°	58	28	4	3	2	58
75°	0	1	1	1	1	5
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	442.8	442.8	442.8	442.8	442.8
2.5°	441.5	442.8	439.0	442.2	442.8
5°	439.6	440.3	433.2	433.2	432.6
7.5°	436.4	435.1	423.6	419.1	418.5
10°	432.6	428.1	411.5	401.9	398.7
12.5°	426.8	418.5	396.1	382.0	378.2
15°	418.5	405.7	378.8	360.9	353.9
17.5°	408.3	391.6	359.6	337.9	330.8
20°	396.1	375.0	338.5	314.2	305.2
22.5°	383.3	359.0	316.8	289.2	280.3
25°	369.2	340.4	295.6	264.3	254.0
27.5°	354.5	320.6	272.6	240.0	226.5
30°	337.9	300.8	247.6	213.7	200.9
32.5°	320.0	279.0	225.3	188.8	173.4
35°	302.0	257.9	200.9	161.9	147.8
37.5°	284.8	238.0	176.6	135.7	122.2
40°	266.2	216.3	154.2	112.0	96.6
42.5°	247.0	195.2	131.2	87.7	71.0
45°	227.8	175.3	109.4	62.7	44.2
47.5°	208.6	154.2	88.3	39.7	23.7
50°	186.9	133.7	67.2	21.1	13.4
52.5°	166.4	114.5	48.0	12.2	10.2
55°	144.0	94.7	30.7	9.0	8.3
57.5°	122.9	75.5	17.3	7.0	6.4
60°	100.5	58.2	9.6	5.8	5.1
62.5°	78.1	42.2	6.4	3.8	3.2
65°	58.2	28.2	4.5	2.6	1.9
67.5°	38.4	16.0	3.2	1.3	1.3
70°	21.1	7.7	1.9	1.3	1.3
72.5°	7.7	2.6	1.3	0.6	0.6
75°	0.0	0.6	0.6	0.6	0.6
77.5°	0.0	0.0	0.0	0.0	0.6
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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	13.18	14.44	13.54	14.75	15.06	0.00	0.00	0.00	0.00	0.00
	3H	13.46	14.56	13.84	14.89	15.26	0.00	0.00	0.00	0.00	0.00
	4H	13.38	14.40	13.78	14.76	15.14	0.00	0.00	0.00	0.00	0.00
	6H	13.29	14.23	13.71	14.60	15.00	0.00	0.00	0.00	0.00	0.00
	8H	13.25	14.13	13.68	14.52	14.93	0.00	0.00	0.00	0.00	0.00
	12H	13.20	14.05	13.63	14.43	14.86	0.00	0.00	0.00	0.00	0.00
4H	2H	12.95	13.98	13.36	14.33	14.71	0.00	0.00	0.00	0.00	0.00
	3H	13.24	14.06	13.65	14.47	14.87	0.00	0.00	0.00	0.00	0.00
	4H	13.14	13.88	13.58	14.30	14.74	0.00	0.00	0.00	0.00	0.00
	6H	13.06	13.69	13.52	14.13	14.60	0.00	0.00	0.00	0.00	0.00
	8H	12.99	13.58	13.47	14.03	14.50	0.00	0.00	0.00	0.00	0.00
	12H	12.94	13.46	13.43	13.94	14.42	0.00	0.00	0.00	0.00	0.00
8H	4H	12.99	13.58	13.47	14.03	14.50	0.00	0.00	0.00	0.00	0.00
	6H	12.89	13.36	13.39	13.86	14.34	0.00	0.00	0.00	0.00	0.00
	8H	12.82	13.25	13.34	13.76	14.26	0.00	0.00	0.00	0.00	0.00
	12H	12.77	13.15	13.29	13.64	14.22	0.00	0.00	0.00	0.00	0.00
12H	4H	12.94	13.46	13.43	13.94	14.42	0.00	0.00	0.00	0.00	0.00
	6H	12.82	13.25	13.34	13.76	14.26	0.00	0.00	0.00	0.00	0.00
	8H	12.77	13.15	13.29	13.64	14.22	0.00	0.00	0.00	0.00	0.00