

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: P1060878

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060878
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-75)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H575D835-X4F0-XX-UDD-BVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

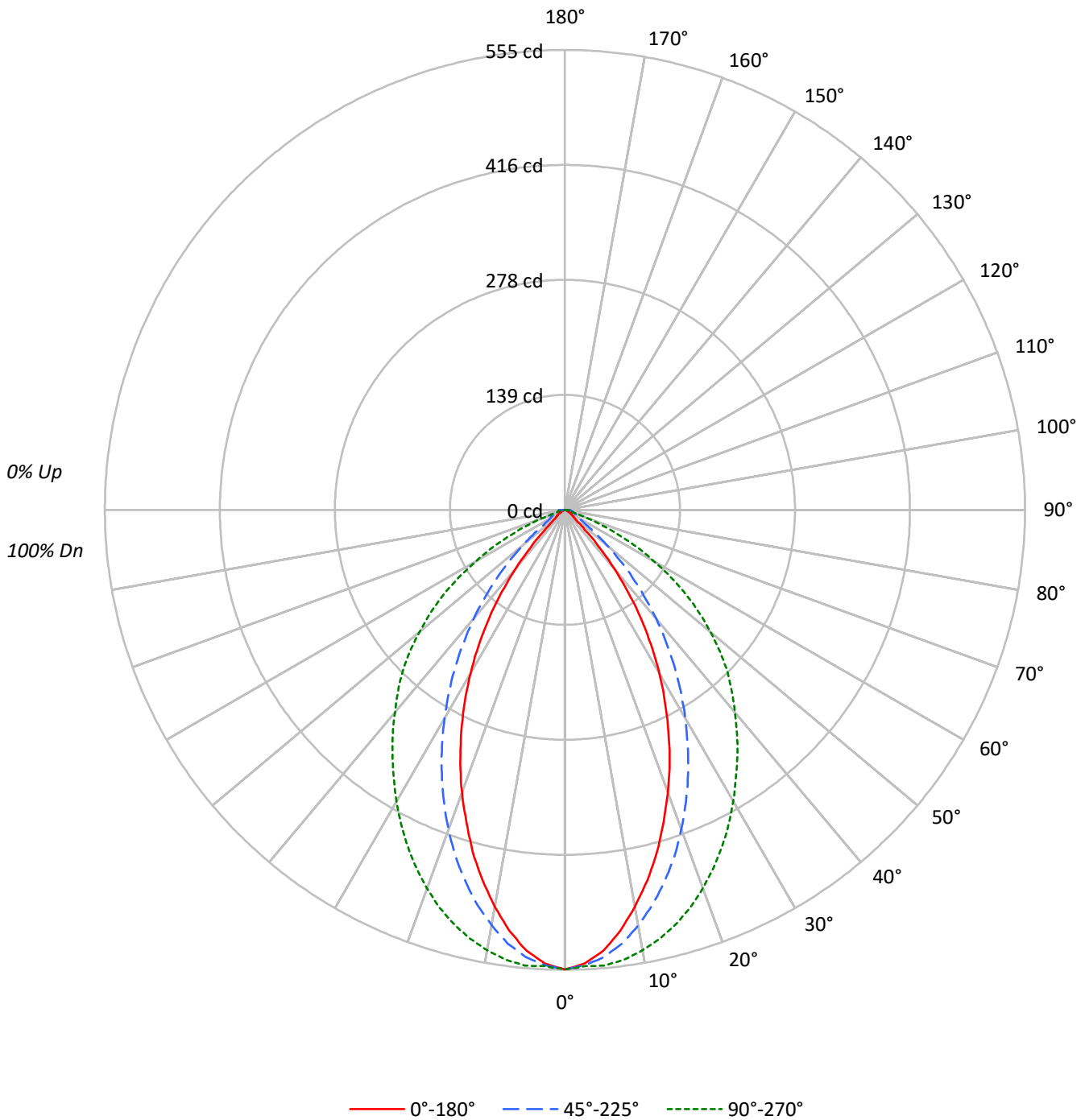
Lumens per Lamp: N/A
Luminaire Lumens: 699.0 lumens
Efficiency: N/A
Efficacy: 40.2 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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				
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90				
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81				
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72				
4	91	82	75	70	89	81	75	70	79	73	69	76	72	68	74	70	67	65				
5	86	75	68	63	84	74	68	63	72	67	62	71	66	62	69	65	61	59				
6	80	70	62	57	79	69	62	57	67	61	56	66	60	56	64	59	56	54				
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49				
8	71	60	53	48	70	59	52	48	58	52	48	57	51	47	56	51	47	45				
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42				
10	63	52	45	41	62	52	45	41	51	45	41	50	44	41	49	44	40	39				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4776	4776	4776
5°	4614	4682	4772
10°	4251	4451	4718
15°	3818	4137	4613
20°	3328	3764	4455
25°	2808	3340	4261
30°	2265	2887	4039
35°	1677	2416	3812
40°	1039	1924	3586
45°	412	1403	3377
50°	184	880	3069
55°	147	459	2687
60°	102	348	2141
65°	67	344	1473
70°	65	312	687
75°	87	303	303
80°	129	357	357
85°	257	711	514

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3377 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.9	7.3
10°-20°	131.3	18.8
20°-30°	165.7	23.7
30°-40°	152.1	21.8
40°-50°	103.6	14.8
50°-60°	56.4	8.1
60°-70°	24.4	3.5
70°-80°	8.9	1.3
80°-90°	5.8	0.8
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°	347.9	49.8
0°-40°	500.0	71.5
0°-60°	659.9	94.4
0°-90°	699.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	699.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	555	555	555	555	555	
5°	534	541	542	547	552	49
15°	428	443	464	497	518	119
25°	296	316	352	408	448	135
35°	160	183	230	303	363	99
45°	34	57	115	204	277	31
55°	10	10	31	113	179	9
65°	3	5	17	35	72	4
75°	3	8	9	9	9	3
85°	3	6	7	7	5	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	554.6	554.6	554.6	554.6	554.6
2.5°	548.1	554.6	550.0	551.3	551.3
5°	533.8	540.9	541.6	547.4	552.0
7.5°	512.3	522.7	527.9	539.6	547.4
10°	486.2	498.6	509.0	529.2	539.6
12.5°	458.2	472.6	488.2	514.9	529.8
15°	428.3	443.3	464.1	497.3	517.5
17.5°	395.1	413.3	438.7	478.4	503.2
20°	363.2	381.4	410.7	455.6	486.2
22.5°	330.0	348.9	381.4	431.6	468.0
25°	295.5	316.3	351.5	407.5	448.5
27.5°	261.7	283.8	320.9	382.1	427.7
30°	227.8	250.0	290.3	356.1	406.2
32.5°	193.3	216.1	259.7	328.7	384.0
35°	159.5	182.9	229.8	302.7	362.6
37.5°	125.0	149.7	199.8	277.3	341.1
40°	92.4	117.2	171.2	251.9	319.0
42.5°	61.8	86.6	141.9	227.2	298.1
45°	33.8	56.6	115.2	204.4	277.3
47.5°	18.2	31.2	89.2	182.3	253.9
50°	13.7	16.9	65.7	158.8	229.1
52.5°	11.7	13.0	45.6	134.1	204.4
55°	9.8	10.4	30.6	112.6	179.0
57.5°	7.8	8.5	22.8	91.1	151.7
60°	5.9	7.2	20.2	70.3	124.3
62.5°	4.6	5.9	18.9	51.4	98.3
65°	3.3	4.6	16.9	35.1	72.3
67.5°	3.3	5.2	14.3	22.8	48.8
70°	2.6	7.2	12.4	15.0	27.3
72.5°	2.6	7.8	10.4	10.4	10.4
75°	2.6	8.5	9.1	9.1	9.1
77.5°	2.6	7.8	8.5	7.8	7.8
80°	2.6	7.2	7.2	7.2	7.2
82.5°	2.6	6.5	7.2	7.2	5.9
85°	2.6	5.9	7.2	7.2	5.2
87.5°	2.0	5.9	6.5	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	0.00	0.00	0.00	0.00	0.00	13.84	15.12	14.20	15.43	15.75
	3H	0.00	0.00	0.00	0.00	0.00	14.22	15.35	14.60	15.68	16.04
	4H	0.00	0.19	0.00	0.54	0.92	14.19	15.25	14.60	15.60	15.98
	6H	0.31	1.28	0.73	1.65	2.04	14.18	15.15	14.60	15.52	15.91
	8H	0.90	1.81	1.33	2.21	2.61	14.18	15.10	14.61	15.49	15.89
	12H	1.57	2.44	2.00	2.82	3.26	14.20	15.07	14.63	15.45	15.88
4H	2H	0.09	1.14	0.49	1.49	1.88	13.65	14.70	14.05	15.05	15.44
	3H	1.68	2.54	2.09	2.94	3.35	14.07	14.93	14.48	15.33	15.74
	4H	2.98	3.74	3.41	4.16	4.61	14.07	14.84	14.50	15.26	15.70
	6H	4.10	4.77	4.57	5.21	5.68	14.11	14.77	14.57	15.22	15.69
	8H	4.61	5.23	5.08	5.68	6.15	14.14	14.76	14.61	15.20	15.67
	12H	5.16	5.71	5.65	6.19	6.67	14.20	14.75	14.69	15.23	15.71
8H	4H	4.06	4.68	4.53	5.13	5.60	13.98	14.60	14.45	15.04	15.52
	6H	5.61	6.11	6.11	6.61	7.09	14.06	14.56	14.56	15.06	15.54
	8H	6.41	6.87	6.93	7.38	7.87	14.14	14.60	14.67	15.11	15.61
	12H	7.24	7.65	7.76	8.14	8.71	14.31	14.72	14.83	15.21	15.78
12H	4H	4.25	4.80	4.74	5.28	5.75	13.94	14.49	14.43	14.97	15.45
	6H	5.96	6.42	6.49	6.93	7.43	14.03	14.49	14.55	15.00	15.50
	8H	6.97	7.38	7.49	7.87	8.44	14.17	14.57	14.69	15.07	15.64