

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: P1058376

Luminaire Tested: S122RDR-H485D840-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058376
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-57)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H485D840-X4F0-XX-UDD-BVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

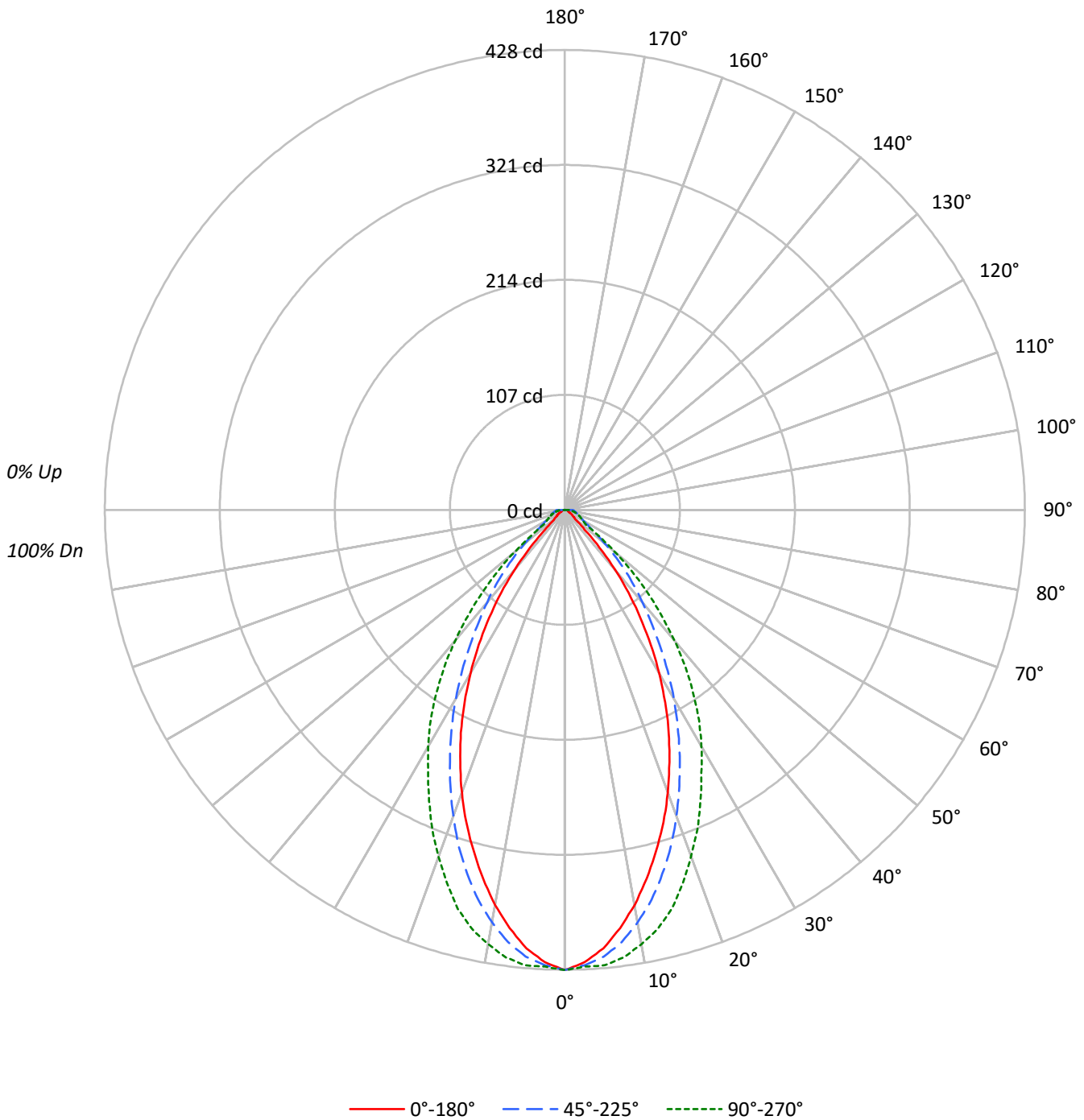
Lumens per Lamp: N/A
Luminaire Lumens: 466.1 lumens
Efficiency: N/A
Efficacy: 26.8 lumens/watt
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	97	98	96	95	95	93	92	90				
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81				
3	98	91	85	80	96	89	84	79	86	82	78	84	80	76	81	78	75	74				
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67				
5	87	77	70	65	85	76	70	65	74	69	64	72	67	64	71	66	63	61				
6	82	72	65	60	80	71	64	59	69	63	59	68	62	58	66	62	58	56				
7	77	67	60	55	76	66	59	55	64	59	54	63	58	54	62	57	54	52				
8	73	62	55	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48				
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45				
10	66	55	48	44	64	54	48	44	53	48	44	53	47	43	52	47	43	42				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7901	7901	7901
5°	7589	7730	7882
10°	6996	7306	7690
15°	6270	6701	7343
20°	5502	5960	6741
25°	4658	5147	6082
30°	3737	4321	5416
35°	2762	3458	4692
40°	1732	2707	3813
45°	678	2038	2826
50°	333	1378	1731
55°	264	904	772
60°	203	734	709
65°	148	690	690
70°	183	701	701
75°	192	784	734
80°	287	1020	797
85°	572	1736	1164

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 87.5°
 Luminance: 3173 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.1	8.4
10°-20°	98.9	21.2
20°-30°	118.3	25.4
30°-40°	99.6	21.4
40°-50°	56.7	12.2
50°-60°	22.4	4.8
60°-70°	14.1	3.0
70°-80°	10.5	2.2
80°-90°	6.6	1.4
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°	256.3	55.0
0°-40°	355.8	76.3
0°-60°	434.9	93.3
0°-90°	466.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	466.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	428	428	428	428	428	
5°	410	419	417	422	426	38
15°	328	340	351	371	384	92
25°	229	239	253	279	299	104
35°	123	134	154	186	208	76
45°	26	46	78	98	108	25
55°	8	18	28	29	24	7
65°	3	16	16	15	16	4
75°	3	11	11	10	10	3
85°	3	8	8	8	6	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	428.2	428.2	428.2	428.2	428.2
2.5°	421.4	428.9	424.1	424.8	425.5
5°	409.7	418.6	417.3	422.1	425.5
7.5°	392.6	402.2	405.6	413.8	420.0
10°	373.4	384.4	389.9	402.9	410.4
12.5°	351.5	363.8	372.0	388.5	399.4
15°	328.2	339.8	350.8	371.4	384.4
17.5°	304.9	316.5	328.2	350.8	364.5
20°	280.2	291.2	303.5	327.5	343.3
22.5°	254.2	265.8	278.2	302.8	322.0
25°	228.8	239.1	252.8	278.9	298.7
27.5°	202.1	212.4	227.5	254.2	275.4
30°	175.4	185.7	202.8	230.2	254.2
32.5°	148.7	159.6	178.1	208.3	232.3
35°	122.6	133.6	153.5	186.4	208.3
37.5°	97.3	109.6	131.5	163.8	184.3
40°	71.9	86.3	112.4	141.1	158.3
42.5°	48.0	65.8	94.6	118.5	132.9
45°	26.0	45.9	78.1	98.0	108.3
47.5°	14.4	29.5	62.3	78.1	84.3
50°	11.6	20.6	48.0	59.6	60.3
52.5°	9.6	18.5	35.6	42.5	39.1
55°	8.2	17.8	28.1	28.8	24.0
57.5°	6.9	17.1	23.3	20.6	20.6
60°	5.5	17.1	19.9	18.5	19.2
62.5°	4.1	17.1	17.8	16.4	17.1
65°	3.4	15.8	15.8	15.1	15.8
67.5°	3.4	14.4	14.4	13.7	14.4
70°	3.4	13.7	13.0	13.0	13.0
72.5°	2.7	12.3	12.3	11.6	11.6
75°	2.7	11.0	11.0	10.3	10.3
77.5°	2.7	10.3	10.3	9.6	8.9
80°	2.7	8.9	9.6	8.9	7.5
82.5°	2.7	8.2	8.9	8.2	6.2
85°	2.7	7.5	8.2	7.5	5.5
87.5°	2.1	7.5	7.5	6.2	4.1
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	4.87	6.09	5.23	6.40	6.72	6.91	8.13	7.28	8.45	8.76
	3H	6.41	7.50	6.79	7.83	8.19	8.88	9.96	9.26	10.29	10.66
	4H	6.96	7.97	7.37	8.33	8.71	9.79	10.80	10.19	11.15	11.54
	6H	7.51	8.44	7.93	8.82	9.21	10.67	11.60	11.09	11.97	12.37
	8H	7.80	8.68	8.23	9.07	9.48	11.07	11.95	11.51	12.35	12.75
	12H	8.16	9.00	8.59	9.38	9.81	11.52	12.36	11.95	12.74	13.17
4H	2H	6.06	7.07	6.46	7.42	7.81	7.53	8.54	7.94	8.90	9.28
	3H	8.26	9.09	8.67	9.49	9.90	9.77	10.60	10.18	11.01	11.41
	4H	9.31	10.06	9.75	10.48	10.93	10.84	11.59	11.27	12.01	12.45
	6H	10.20	10.85	10.67	11.30	11.77	11.94	12.59	12.41	13.04	13.51
	8H	10.59	11.19	11.06	11.64	12.11	12.47	13.07	12.94	13.52	13.99
	12H	11.00	11.53	11.49	12.02	12.49	13.05	13.58	13.53	14.06	14.54
8H	4H	10.12	10.72	10.59	11.17	11.64	11.33	11.94	11.80	12.39	12.86
	6H	11.50	11.99	12.00	12.49	12.97	12.72	13.22	13.23	13.72	14.20
	8H	12.21	12.65	12.73	13.17	13.66	13.46	13.91	13.99	14.43	14.92
	12H	12.95	13.35	13.47	13.84	14.41	14.29	14.69	14.81	15.18	15.76
12H	4H	10.28	10.81	10.77	11.30	11.77	11.43	11.97	11.92	12.45	12.93
	6H	11.83	12.27	12.35	12.79	13.28	12.94	13.39	13.47	13.90	14.40
	8H	12.74	13.13	13.25	13.63	14.20	13.83	14.22	14.34	14.71	15.29