

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: P1058227

Luminaire Tested: S122RDR-H1005D850-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058227
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-19)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H1005D850-X4F0-XX-UDD-WVL-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

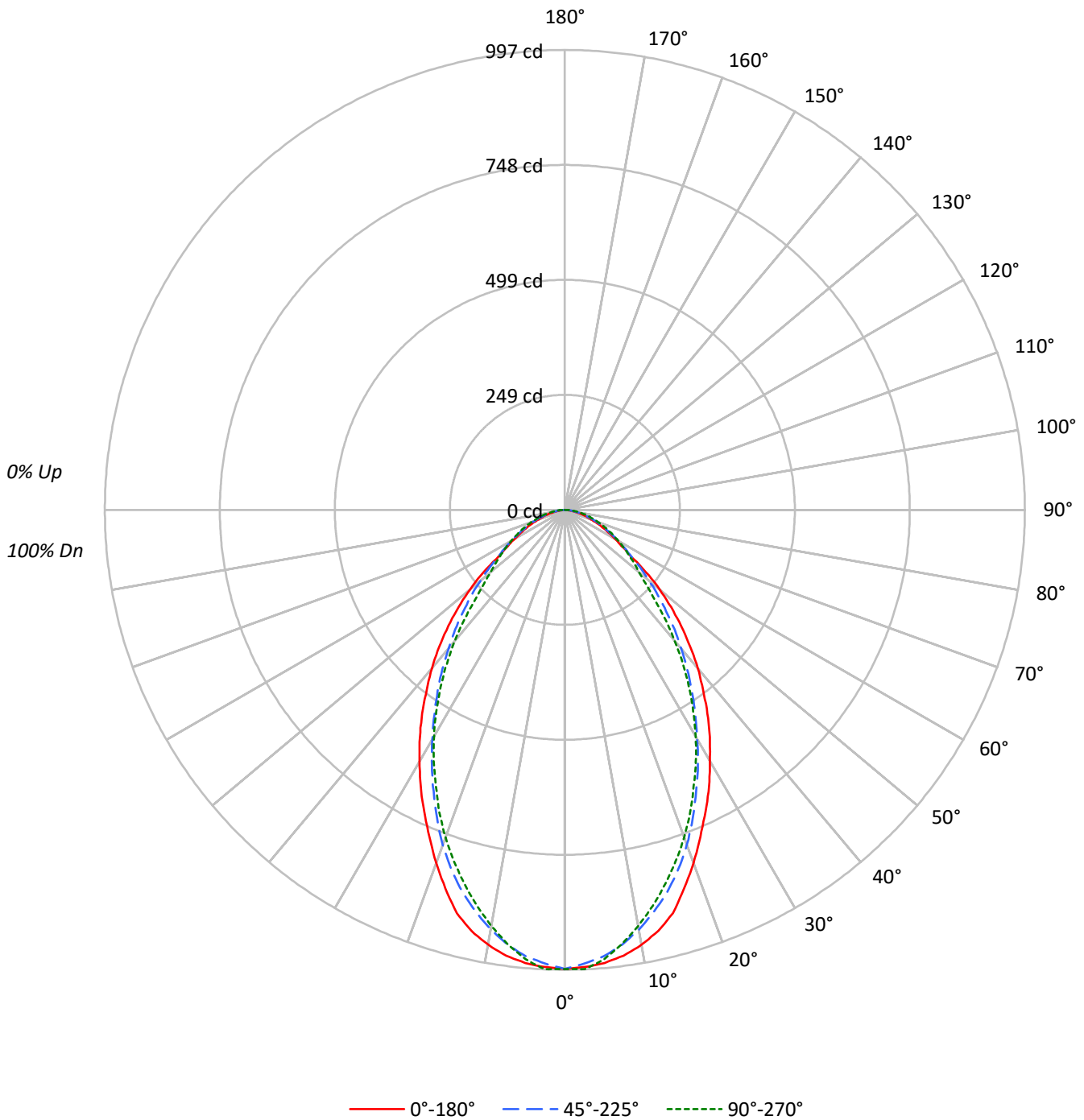
Lumens per Lamp: N/A
Luminaire Lumens: 1511.6 lumens
Efficiency: N/A
Efficacy: 41.4 lumens/watt
Spacing Criteria (0/90/45): 1 / 0.92 / 1.02
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.5
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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54
6	77	66	58	52	75	65	57	52	63	56	52	61	56	51	60	55	51	49
7	72	60	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	44
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41
9	64	52	45	40	63	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	18366	18366	18366
5°	18260	17997	18114
10°	17937	17313	17165
15°	17289	16381	16047
20°	15998	15187	14845
25°	14682	13715	13456
30°	13406	12224	12090
35°	12139	10817	10567
40°	10803	9430	8934
45°	9306	8105	7155
50°	7691	6824	6005
55°	5559	5659	5405
60°	4620	4853	4912
65°	3943	4222	4497
70°	3248	3760	4106
75°	2709	3165	3729
80°	2019	2529	3369
85°	677	1334	3028

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9306 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.0	6.1
10°-20°	242.3	16.0
20°-30°	313.6	20.7
30°-40°	307.5	20.3
40°-50°	242.2	16.0
50°-60°	158.7	10.5
60°-70°	96.6	6.4
70°-80°	48.3	3.2
80°-90°	10.4	0.7
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°	647.9	42.9
0°-40°	955.4	63.2
0°-60°	1356.3	89.7
0°-90°	1511.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1511.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	995	995	995	995	995	
5°	986	986	972	978	978	93
15°	905	892	858	846	840	252
25°	721	697	674	670	661	332
35°	539	509	480	479	469	336
45°	357	334	311	288	274	275
55°	173	182	176	170	168	164
65°	90	92	97	101	103	90
75°	38	40	44	51	52	40
85°	3	5	6	11	14	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	995.3	995.3	995.3	995.3	995.3
2.5°	992.2	993.8	984.2	993.8	996.9
5°	985.8	985.8	971.6	977.9	977.9
7.5°	974.7	973.2	951.0	951.0	949.4
10°	957.3	951.0	924.0	919.3	916.1
12.5°	935.1	924.0	892.3	884.4	879.6
15°	905.0	892.3	857.5	846.4	840.0
17.5°	860.6	847.9	817.8	805.1	798.8
20°	814.7	795.6	773.4	762.4	756.0
22.5°	767.1	744.9	724.3	716.4	710.1
25°	721.1	697.4	673.6	670.4	660.9
27.5°	676.8	648.2	624.5	622.9	615.0
30°	629.2	599.1	573.7	575.3	567.4
32.5°	584.8	556.3	526.2	527.8	518.3
35°	538.9	508.8	480.2	478.7	469.1
37.5°	491.3	462.8	435.9	429.5	420.0
40°	448.5	420.0	391.5	380.4	370.9
42.5°	402.6	377.2	351.9	334.4	321.7
45°	356.6	334.4	310.6	288.5	274.2
47.5°	312.2	294.8	274.2	247.3	237.7
50°	267.9	255.2	237.7	214.0	209.2
52.5°	221.9	217.1	206.0	190.2	188.6
55°	172.8	182.3	175.9	169.6	168.0
57.5°	145.8	147.4	152.2	150.6	150.6
60°	125.2	125.2	131.5	133.1	133.1
62.5°	106.2	107.8	114.1	117.3	117.3
65°	90.3	91.9	96.7	101.4	103.0
67.5°	74.5	77.7	82.4	87.2	88.8
70°	60.2	63.4	69.7	74.5	76.1
72.5°	49.1	50.7	57.1	61.8	63.4
75°	38.0	39.6	44.4	50.7	52.3
77.5°	26.9	30.1	34.9	39.6	42.8
80°	19.0	20.6	23.8	30.1	31.7
82.5°	11.1	12.7	15.8	20.6	22.2
85°	3.2	4.8	6.3	11.1	14.3
87.5°	0.0	0.0	0.0	3.2	6.3
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	16.23	17.63	16.60	17.94	18.26	16.41	17.81	16.78	18.12	18.44
	3H	17.37	18.61	17.75	18.94	19.30	17.88	19.12	18.25	19.45	19.81
	4H	17.72	18.88	18.12	19.23	19.61	18.42	19.58	18.82	19.93	20.31
	6H	17.90	18.97	18.32	19.34	19.73	18.83	19.90	19.24	20.27	20.66
	8H	17.93	18.95	18.36	19.34	19.74	18.96	19.97	19.39	20.36	20.77
	12H	17.91	18.89	18.35	19.27	19.70	19.04	20.01	19.47	20.40	20.83
4H	2H	16.69	17.86	17.09	18.21	18.59	16.84	18.00	17.24	18.35	18.74
	3H	18.03	18.99	18.44	19.39	19.80	18.51	19.47	18.93	19.87	20.28
	4H	18.48	19.33	18.91	19.75	20.19	19.18	20.04	19.61	20.46	20.90
	6H	18.75	19.49	19.21	19.93	20.40	19.71	20.46	20.17	20.90	21.36
	8H	18.79	19.49	19.26	19.93	20.40	19.88	20.58	20.35	21.02	21.49
	12H	18.79	19.40	19.27	19.88	20.36	20.00	20.62	20.49	21.10	21.57
8H	4H	18.69	19.38	19.16	19.83	20.30	19.33	20.02	19.79	20.47	20.94
	6H	19.04	19.60	19.54	20.10	20.58	19.96	20.53	20.46	21.02	21.50
	8H	19.11	19.62	19.63	20.14	20.63	20.19	20.70	20.71	21.22	21.71
	12H	19.13	19.58	19.64	20.08	20.64	20.38	20.83	20.89	21.32	21.89
12H	4H	18.70	19.32	19.19	19.80	20.27	19.31	19.93	19.80	20.41	20.88
	6H	19.06	19.57	19.58	20.08	20.58	19.95	20.46	20.47	20.98	21.47
	8H	19.18	19.63	19.69	20.12	20.69	20.23	20.68	20.74	21.17	21.74