

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: P1062165

Luminaire Tested: S125RDR-H850D830-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1062165
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-84)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDR-H850D830-X4F0-XX-UDD-BVL-W
Description: DEFINE 5 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

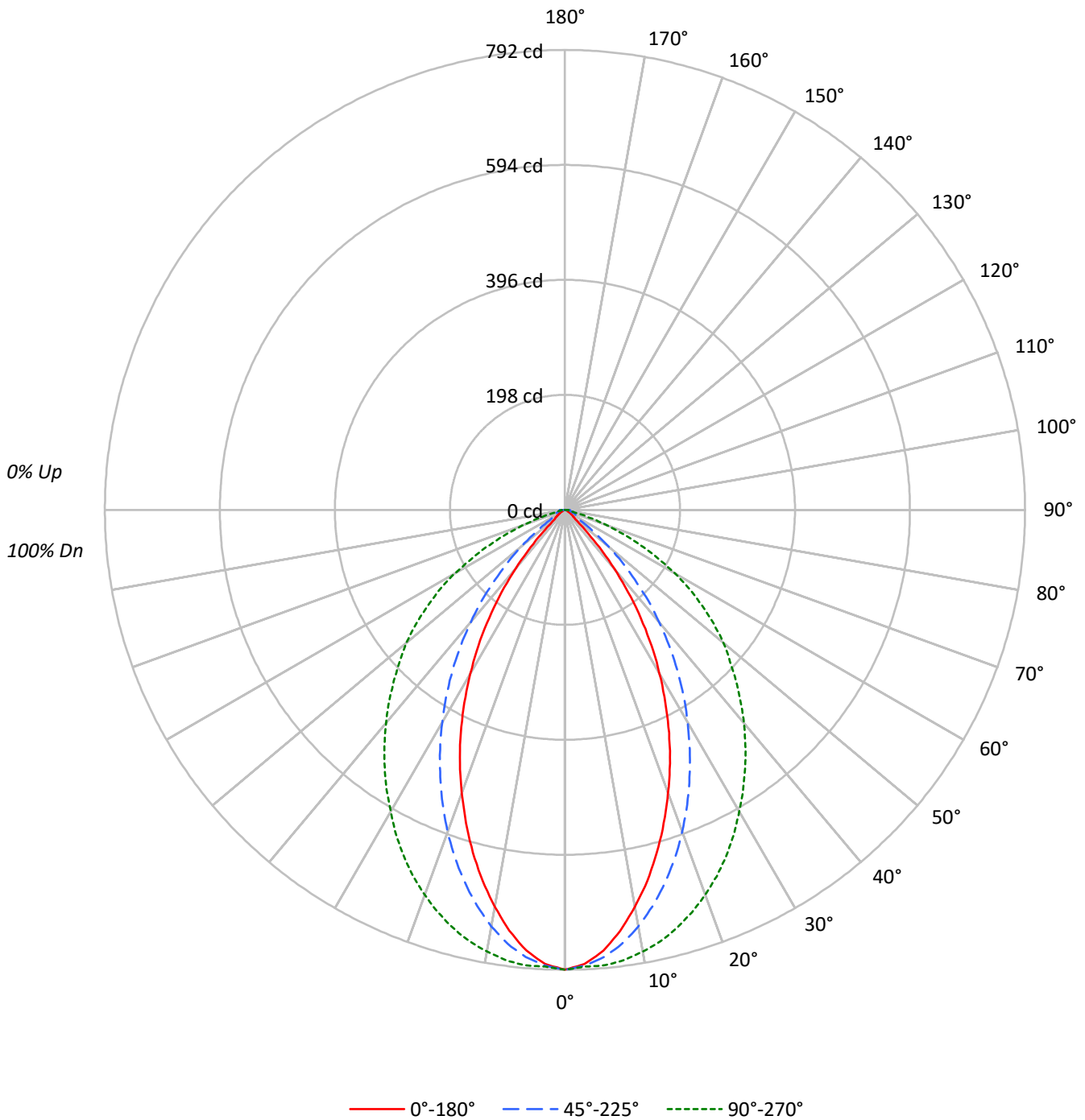
Lumens per Lamp: N/A
Luminaire Lumens: 1024.4 lumens
Efficiency: N/A
Efficacy: 43.6 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.14 / 0.98
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 23.5
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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	104	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	80
3	98	89	83	78	95	88	82	78	85	80	76	83	79	75	80	77	74	72
4	91	82	75	70	89	81	74	69	78	73	68	76	71	67	74	70	67	65
5	85	75	68	63	83	74	67	62	72	66	62	70	65	61	69	64	60	59
6	80	69	62	57	78	68	61	56	67	60	56	65	60	56	64	59	55	53
7	75	64	57	52	74	63	56	51	62	56	51	60	55	51	59	54	50	49
8	71	59	52	47	69	59	52	47	58	51	47	56	51	47	55	50	46	45
9	67	55	48	44	65	55	48	44	54	48	43	53	47	43	52	47	43	41
10	63	52	45	40	62	51	45	40	50	44	40	49	44	40	49	44	40	38

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5452	5452	5452
5°	5266	5345	5442
10°	4853	5093	5400
15°	4358	4741	5311
20°	3804	4325	5170
25°	3221	3856	4993
30°	2588	3357	4770
35°	1916	2832	4547
40°	1186	2261	4310
45°	463	1653	4052
50°	216	1037	3817
55°	158	443	3464
60°	109	315	3005
65°	72	329	2336
70°	70	302	1470
75°	93	303	468
80°	139	349	313
85°	205	695	490

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4052 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.6	7.1
10°-20°	188.1	18.4
20°-30°	239.6	23.4
30°-40°	223.0	21.8
40°-50°	153.5	15.0
50°-60°	86.9	8.5
60°-70°	41.1	4.0
70°-80°	12.8	1.3
80°-90°	6.7	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°	500.3	48.8
0°-40°	723.4	70.6
0°-60°	963.8	94.1
0°-90°	1024.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1024.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	792	792	792	792	792	
5°	762	772	773	780	787	71
15°	611	632	665	715	745	170
25°	424	451	508	593	657	193
35°	228	260	337	452	541	141
45°	48	76	170	307	416	45
55°	13	15	37	177	289	12
65°	4	5	20	63	143	5
75°	4	8	11	12	18	4
85°	3	7	9	8	6	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	791.8	791.8	791.8	791.8	791.8
2.5°	783.0	790.9	785.6	786.5	787.4
5°	761.9	772.4	773.3	780.3	787.4
7.5°	731.1	744.3	753.9	770.7	782.1
10°	694.1	710.0	728.4	755.7	772.4
12.5°	654.5	673.0	698.5	737.2	761.0
15°	611.4	631.7	665.1	715.2	745.1
17.5°	565.7	588.6	629.0	688.8	726.7
20°	519.1	543.7	590.3	658.9	705.6
22.5°	472.4	497.9	549.8	626.4	682.7
25°	424.0	451.3	507.6	592.9	657.2
27.5°	374.8	402.9	465.4	558.6	629.9
30°	325.5	355.4	422.3	523.4	600.0
32.5°	277.1	307.0	380.1	488.3	571.0
35°	227.9	259.5	336.9	452.2	541.0
37.5°	178.6	212.9	294.7	415.2	510.3
40°	132.0	164.5	251.6	379.2	479.5
42.5°	88.0	119.6	212.9	343.1	447.8
45°	47.5	75.7	169.8	307.0	416.1
47.5°	25.5	40.5	132.8	271.8	385.3
50°	20.2	22.9	96.8	239.3	356.3
52.5°	16.7	18.5	63.3	208.5	322.9
55°	13.2	15.0	36.9	176.8	288.6
57.5°	10.6	12.3	23.8	146.9	255.1
60°	7.9	9.7	22.9	117.9	218.2
62.5°	6.2	7.0	21.1	90.6	179.5
65°	4.4	5.3	20.2	63.3	143.4
67.5°	3.5	4.4	18.5	40.5	107.3
70°	3.5	3.5	15.0	26.4	73.0
72.5°	3.5	6.2	13.2	17.6	44.0
75°	3.5	7.9	11.4	12.3	17.6
77.5°	3.5	8.8	9.7	9.7	9.7
80°	3.5	7.9	8.8	8.8	7.9
82.5°	3.5	7.0	7.9	8.8	7.0
85°	2.6	7.0	8.8	7.9	6.2
87.5°	2.6	7.0	7.9	7.0	4.4
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	15.14	16.43	15.50	16.74	17.05
	3H	0.00	0.00	0.00	0.00	0.00	15.86	17.00	16.24	17.33	17.69
	4H	0.00	0.00	0.00	0.00	0.00	15.88	16.94	16.28	17.29	17.68
	6H	0.00	0.44	0.00	0.81	1.20	15.83	16.81	16.25	17.18	17.57
	8H	0.10	1.02	0.53	1.41	1.82	15.81	16.73	16.24	17.12	17.53
	12H	0.68	1.56	1.11	1.94	2.38	15.79	16.67	16.22	17.06	17.49
4H	2H	0.00	0.70	0.04	1.05	1.44	14.93	15.99	15.33	16.34	16.73
	3H	0.45	1.32	0.87	1.73	2.13	15.68	16.55	16.10	16.96	17.36
	4H	1.46	2.23	1.90	2.65	3.10	15.71	16.49	16.15	16.91	17.35
	6H	2.74	3.40	3.20	3.85	4.32	15.69	16.36	16.16	16.81	17.27
	8H	3.31	3.94	3.78	4.38	4.86	15.68	16.30	16.15	16.75	17.22
	12H	3.87	4.42	4.36	4.90	5.38	15.68	16.23	16.17	16.72	17.19
8H	4H	2.88	3.50	3.35	3.95	4.42	15.60	16.22	16.07	16.67	17.14
	6H	4.44	4.94	4.94	5.44	5.92	15.59	16.09	16.09	16.59	17.07
	8H	5.22	5.68	5.75	6.20	6.69	15.60	16.05	16.12	16.57	17.06
	12H	6.06	6.46	6.57	6.95	7.53	15.66	16.06	16.17	16.56	17.13
12H	4H	3.10	3.65	3.59	4.13	4.61	15.55	16.10	16.04	16.59	17.06
	6H	4.81	5.26	5.33	5.78	6.27	15.54	16.00	16.06	16.51	17.00
	8H	5.79	6.20	6.31	6.69	7.26	15.59	15.99	16.10	16.49	17.06