

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: P1061872

Luminaire Tested: S125RDR-H1090D850-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1061872
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-46)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDR-H1090D850-X4F0-XX-UDD-WVL-B
Description: DEFINE 5 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

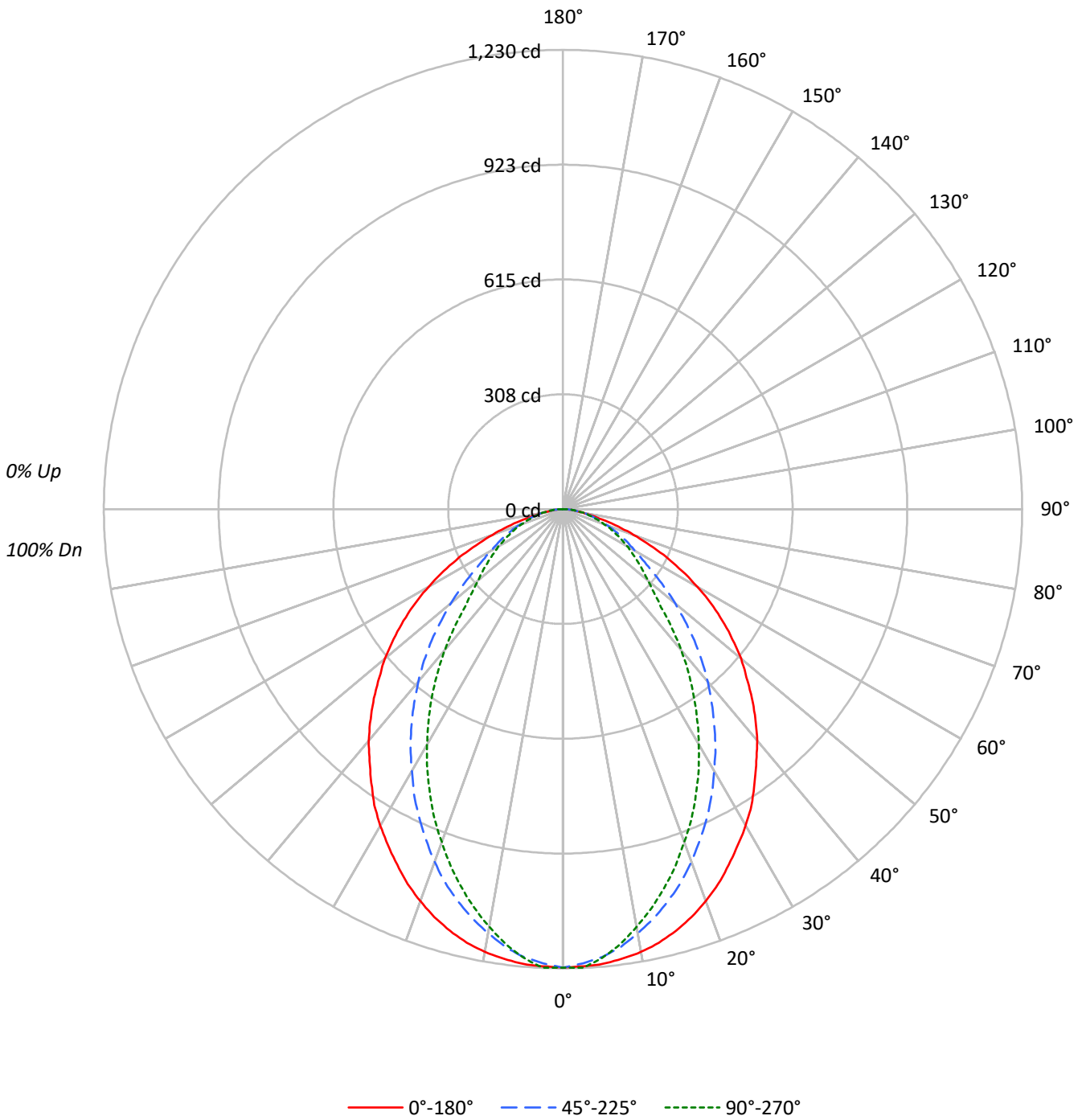
Lumens per Lamp: N/A
Luminaire Lumens: 2326.7 lumens
Efficiency: N/A
Efficacy: 74.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.95 / 1.11
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
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										
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	50	30	10	0														
RCR																																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100															
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87					87															
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75					75															
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65					65															
4	86	76	68	61	84	74	67	61	72	65	60	70	64	59	67	63	59	57					57															
5	80	68	60	54	78	67	59	54	65	58	53	63	57	53	61	56	52	50					50															
6	74	62	54	48	73	61	53	48	59	53	47	58	52	47	56	51	47	45					45															
7	69	57	49	43	68	56	48	43	55	48	43	53	47	42	52	46	42	40					40															
8	65	52	44	39	63	52	44	39	50	43	39	49	43	38	48	42	38	36					36															
9	61	48	41	35	60	48	40	35	47	40	35	46	39	35	45	39	35	33					33															
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	42	36	32	30					30															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8456	8456	8456
5°	8452	8323	8342
10°	8419	8065	7944
15°	8336	7747	7481
20°	8188	7367	6957
25°	7983	6930	6403
30°	7782	6436	5789
35°	7521	5941	5134
40°	7276	5418	4423
45°	6973	4843	3623
50°	6671	4200	3171
55°	6259	3505	2929
60°	5711	3067	2736
65°	4997	2802	2542
70°	4054	2524	2363
75°	2910	2306	2200
80°	2010	2062	2062
85°	1477	1793	1896

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6973 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.2	4.9
10°-20°	308.9	13.3
20°-30°	426.9	18.3
30°-40°	454.7	19.5
40°-50°	399.5	17.2
50°-60°	302.9	13.0
60°-70°	196.7	8.5
70°-80°	97.4	4.2
80°-90°	25.5	1.1
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°	850.0	36.5
0°-40°	1304.7	56.1
0°-60°	2007.1	86.3
0°-90°	2326.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2326.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1228	1228	1228	1228	1228	
5°	1223	1220	1204	1208	1207	116
15°	1170	1143	1087	1062	1050	329
25°	1051	994	912	866	843	484
35°	895	812	707	643	611	560
45°	716	616	497	408	372	552
55°	521	419	292	252	244	465
65°	307	228	172	159	156	303
75°	109	96	87	84	83	122
85°	19	21	23	23	24	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1228.2	1228.2	1228.2	1228.2	1228.2
2.5°	1225.5	1228.2	1217.5	1226.9	1229.5
5°	1222.9	1220.2	1204.2	1208.2	1206.9
7.5°	1214.9	1209.5	1182.9	1180.2	1174.9
10°	1204.2	1190.9	1153.5	1144.2	1136.2
12.5°	1189.5	1168.2	1122.9	1104.2	1094.8
15°	1169.5	1142.9	1086.8	1061.5	1049.5
17.5°	1145.5	1108.2	1049.5	1014.8	1001.5
20°	1117.5	1073.5	1005.5	965.5	949.5
22.5°	1086.8	1034.8	958.8	916.2	898.8
25°	1050.8	993.5	912.2	865.5	842.8
27.5°	1014.8	950.8	862.8	810.8	786.8
30°	978.8	905.5	809.5	753.5	728.1
32.5°	940.2	858.8	760.1	698.8	669.4
35°	894.8	812.1	706.8	642.8	610.8
37.5°	850.8	762.8	654.8	582.8	552.1
40°	809.5	716.1	602.8	524.1	492.1
42.5°	762.8	666.8	550.8	468.1	432.1
45°	716.1	616.1	497.4	408.1	372.1
47.5°	666.8	568.1	441.4	353.4	329.4
50°	622.8	518.8	392.1	312.1	296.0
52.5°	572.1	470.7	341.4	280.0	269.4
55°	521.4	418.7	292.0	252.0	244.0
57.5°	469.4	372.1	253.4	228.0	220.0
60°	414.7	324.1	222.7	202.7	198.7
62.5°	360.1	274.7	196.0	181.4	176.0
65°	306.7	228.0	172.0	158.7	156.0
67.5°	252.0	185.4	148.0	138.7	137.4
70°	201.4	150.7	125.4	120.0	117.4
72.5°	154.7	120.0	105.4	101.4	100.0
75°	109.4	96.0	86.7	84.0	82.7
77.5°	73.3	73.3	69.3	66.7	68.0
80°	50.7	53.3	52.0	52.0	52.0
82.5°	33.3	36.0	37.3	37.3	37.3
85°	18.7	21.3	22.7	22.7	24.0
87.5°	6.7	8.0	9.3	10.7	10.7
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	17.97	19.46	18.34	19.78	20.09	14.21	15.70	14.58	16.02	16.33
	3H	19.28	20.62	19.66	20.95	21.31	15.80	17.13	16.17	17.46	17.82
	4H	19.65	20.90	20.05	21.25	21.63	16.40	17.65	16.80	18.00	18.38
	6H	19.83	20.98	20.24	21.35	21.74	16.87	18.03	17.28	18.39	18.79
	8H	19.86	20.96	20.29	21.35	21.76	17.03	18.13	17.46	18.52	18.92
	12H	19.88	20.93	20.31	21.31	21.74	17.14	18.19	17.57	18.58	19.01
4H	2H	18.08	19.34	18.48	19.68	20.06	14.87	16.13	15.27	16.47	16.85
	3H	19.57	20.61	19.98	21.01	21.41	16.66	17.69	17.07	18.09	18.49
	4H	20.05	20.98	20.48	21.39	21.83	17.37	18.31	17.81	18.72	19.16
	6H	20.33	21.14	20.79	21.58	22.05	17.96	18.77	18.42	19.22	19.68
	8H	20.40	21.16	20.86	21.60	22.07	18.17	18.92	18.63	19.37	19.84
	12H	20.44	21.12	20.92	21.59	22.07	18.32	19.00	18.80	19.48	19.95
8H	4H	20.13	20.89	20.59	21.33	21.80	17.68	18.44	18.15	18.89	19.35
	6H	20.49	21.12	20.99	21.61	22.09	18.39	19.02	18.89	19.51	19.99
	8H	20.61	21.17	21.12	21.68	22.17	18.67	19.23	19.18	19.74	20.23
	12H	20.69	21.19	21.20	21.68	22.25	18.90	19.39	19.41	19.89	20.45
12H	4H	20.12	20.80	20.61	21.28	21.75	17.71	18.39	18.19	18.86	19.34
	6H	20.49	21.06	21.01	21.57	22.05	18.44	19.00	18.96	19.51	20.00
	8H	20.65	21.15	21.16	21.64	22.21	18.78	19.27	19.29	19.77	20.33