

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: P1062174

Luminaire Tested: S125RDR-H850D835-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1062174
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-H850D835-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: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

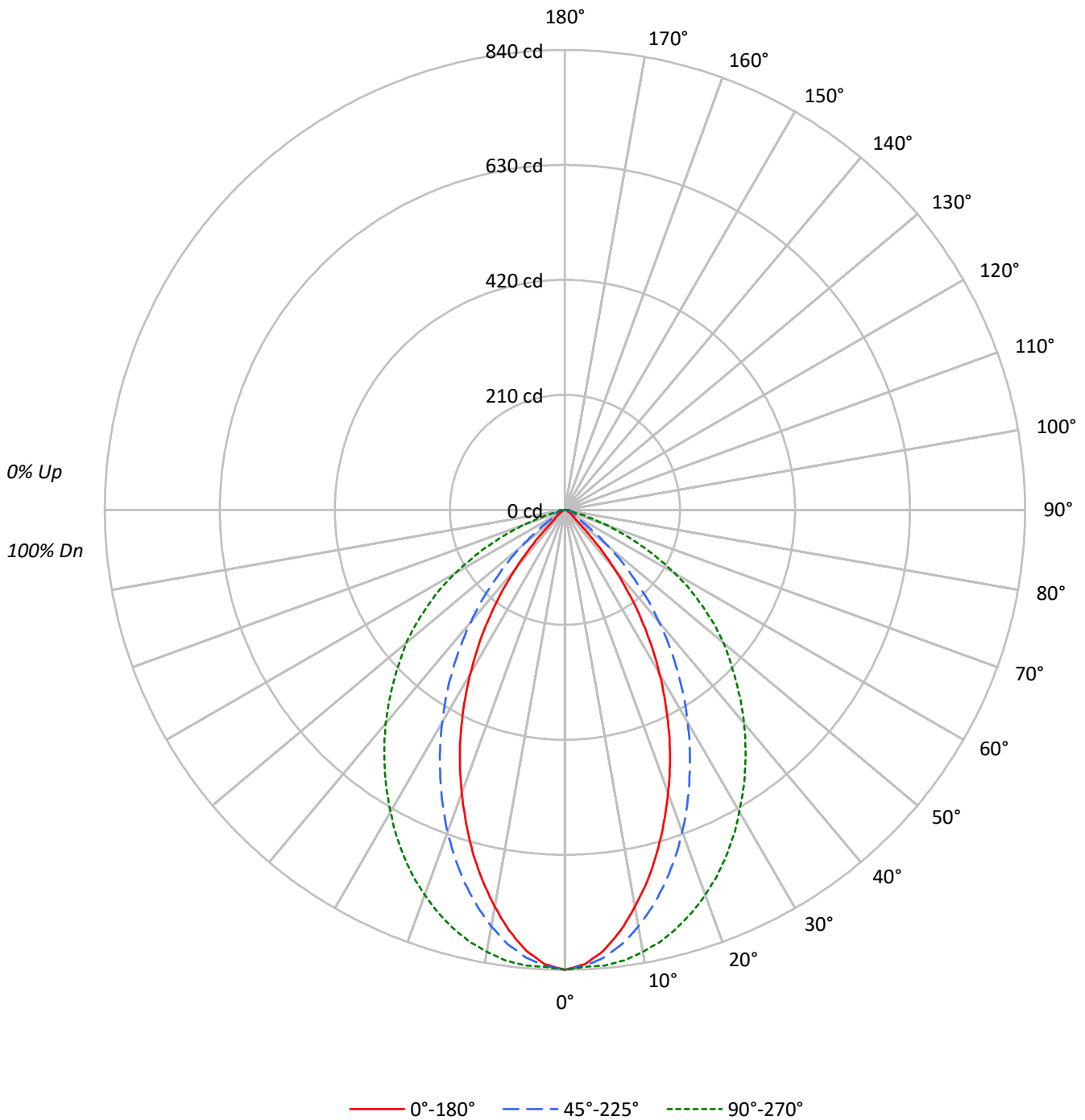
Lumens per Lamp: N/A
Luminaire Lumens: 1086.8 lumens
Efficiency: N/A
Efficacy: 46.2 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.14 / 0.98
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5784	5784	5784
5°	5587	5670	5774
10°	5149	5403	5729
15°	4624	5030	5635
20°	4035	4589	5485
25°	3418	4092	5297
30°	2745	3562	5061
35°	2032	3005	4825
40°	1258	2399	4572
45°	491	1754	4299
50°	230	1100	4049
55°	168	471	3674
60°	116	335	3188
65°	77	350	2478
70°	74	320	1560
75°	98	322	497
80°	147	369	333
85°	221	735	513

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4299 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.0	7.1
10°-20°	199.6	18.4
20°-30°	254.2	23.4
30°-40°	236.6	21.8
40°-50°	162.9	15.0
50°-60°	92.2	8.5
60°-70°	43.6	4.0
70°-80°	13.6	1.3
80°-90°	7.1	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°	530.9	48.8
0°-40°	767.5	70.6
0°-60°	1022.6	94.1
0°-90°	1086.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1086.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	840	840	840	840	840	
5°	808	820	820	828	835	75
15°	649	670	706	759	791	181
25°	450	479	539	629	697	205
35°	242	275	358	480	574	149
45°	50	80	180	326	442	47
55°	14	16	39	188	306	13
65°	5	6	22	67	152	5
75°	4	8	12	13	19	4
85°	3	8	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°	840.0	840.0	840.0	840.0	840.0
2.5°	830.7	839.1	833.5	834.4	835.4
5°	808.3	819.5	820.4	827.9	835.4
7.5°	775.6	789.6	799.9	817.6	829.8
10°	736.4	753.2	772.8	801.8	819.5
12.5°	694.4	714.0	741.1	782.2	807.4
15°	648.7	670.2	705.6	758.8	790.6
17.5°	600.2	624.4	667.4	730.8	771.0
20°	550.7	576.8	626.3	699.1	748.6
22.5°	501.2	528.3	583.4	664.6	724.3
25°	449.9	478.8	538.6	629.1	697.2
27.5°	397.6	427.5	493.8	592.7	668.3
30°	345.3	377.1	448.0	555.4	636.6
32.5°	294.0	325.7	403.2	518.0	605.8
35°	241.7	275.3	357.5	479.8	574.0
37.5°	189.5	225.9	312.7	440.6	541.4
40°	140.0	174.5	266.9	402.3	508.7
42.5°	93.3	126.9	225.9	364.0	475.1
45°	50.4	80.3	180.1	325.7	441.5
47.5°	27.1	42.9	140.9	288.4	408.8
50°	21.5	24.3	102.7	253.9	378.0
52.5°	17.7	19.6	67.2	221.2	342.5
55°	14.0	15.9	39.2	187.6	306.1
57.5°	11.2	13.1	25.2	155.9	270.7
60°	8.4	10.3	24.3	125.1	231.5
62.5°	6.5	7.5	22.4	96.1	190.4
65°	4.7	5.6	21.5	67.2	152.1
67.5°	3.7	4.7	19.6	42.9	113.9
70°	3.7	3.7	15.9	28.0	77.5
72.5°	3.7	6.5	14.0	18.7	46.7
75°	3.7	8.4	12.1	13.1	18.7
77.5°	3.7	9.3	10.3	10.3	10.3
80°	3.7	8.4	9.3	9.3	8.4
82.5°	3.7	7.5	8.4	9.3	7.5
85°	2.8	7.5	9.3	8.4	6.5
87.5°	2.8	7.5	8.4	7.5	4.7
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	0.00	0.00	0.00	0.00	0.00	15.34	16.63	15.71	16.95	17.26
	3H	0.00	0.00	0.00	0.00	0.00	16.06	17.21	16.44	17.54	17.90
	4H	0.00	0.00	0.00	0.00	0.21	16.09	17.15	16.49	17.50	17.88
	6H	0.00	0.64	0.08	1.01	1.40	16.04	17.01	16.45	17.38	17.78
	8H	0.30	1.22	0.73	1.62	2.02	16.01	16.94	16.45	17.33	17.73
	12H	0.89	1.78	1.33	2.16	2.59	16.00	16.88	16.43	17.26	17.69
4H	2H	0.00	0.93	0.27	1.28	1.66	15.13	16.20	15.54	16.55	16.93
	3H	0.67	1.54	1.08	1.94	2.35	15.89	16.76	16.30	17.16	17.57
	4H	1.67	2.45	2.11	2.87	3.31	15.92	16.70	16.36	17.12	17.56
	6H	2.94	3.61	3.41	4.06	4.53	15.90	16.57	16.36	17.01	17.48
	8H	3.52	4.15	3.99	4.59	5.07	15.88	16.51	16.35	16.95	17.43
	12H	4.09	4.64	4.57	5.12	5.60	15.89	16.44	16.38	16.92	17.40
8H	4H	3.09	3.71	3.56	4.16	4.63	15.80	16.43	16.27	16.87	17.35
	6H	4.64	5.15	5.15	5.65	6.13	15.79	16.30	16.30	16.80	17.28
	8H	5.44	5.90	5.96	6.41	6.91	15.80	16.26	16.33	16.78	17.27
	12H	6.28	6.69	6.80	7.18	7.75	15.87	16.27	16.38	16.76	17.34
12H	4H	3.31	3.86	3.80	4.34	4.82	15.76	16.31	16.25	16.79	17.27
	6H	5.01	5.47	5.54	5.99	6.48	15.75	16.20	16.27	16.72	17.21
	8H	6.01	6.41	6.52	6.91	7.48	15.79	16.20	16.31	16.69	17.26