

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: P1062034

Luminaire Tested: S125RDR-H375D850-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1062034  
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-H375D850-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: -

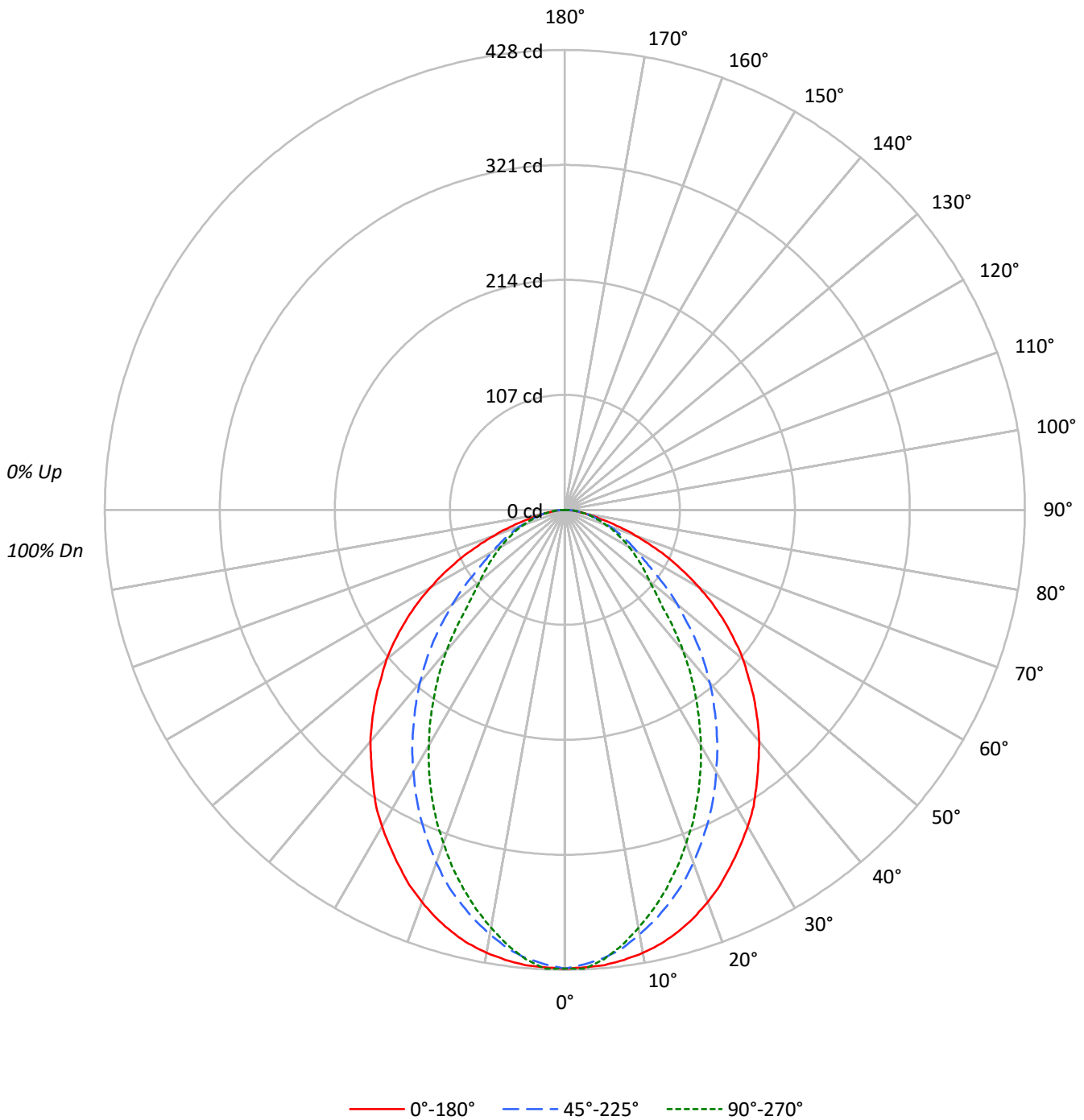
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 808.9 lumens  
Efficiency: N/A  
Efficacy: 69.1 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): 11.7  
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									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	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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87																												
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75																												
3	93	84	77	71	91	82	76	70	80	74	69	77	72	68	74	70	67	65																												
4	86	76	68	61	84	74	67	61	72	65	60	70	64	59	67	63	59	57																												
5	80	68	60	54	78	67	59	54	65	58	53	63	57	53	61	56	52	50																												
6	74	62	54	48	73	61	53	48	59	53	47	58	52	47	56	51	47	45																												
7	69	57	49	43	68	56	48	43	55	48	43	53	47	42	52	46	42	40																												
8	65	52	44	39	63	52	44	39	50	43	39	49	43	38	48	42	38	36																												
9	61	48	41	35	60	48	40	35	47	40	35	46	39	35	45	39	35	33																												
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	42	36	32	30																												

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2940	2940	2940
5°	2939	2894	2900
10°	2927	2804	2762
15°	2898	2694	2601
20°	2847	2562	2419
25°	2776	2409	2226
30°	2706	2237	2012
35°	2615	2065	1784
40°	2529	1884	1538
45°	2425	1684	1260
50°	2319	1460	1102
55°	2176	1218	1018
60°	1986	1066	952
65°	1737	974	883
70°	1409	878	821
75°	1011	801	763
80°	698	718	718
85°	513	624	656

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2425 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	39.7	4.9
10°-20°	107.4	13.3
20°-30°	148.4	18.3
30°-40°	158.1	19.5
40°-50°	138.9	17.2
50°-60°	105.3	13.0
60°-70°	68.4	8.5
70°-80°	33.9	4.2
80°-90°	8.9	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°	295.5	36.5
0°-40°	453.6	56.1
0°-60°	697.8	86.3
0°-90°	808.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	808.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	427	427	427	427	427	
5°	425	424	419	420	420	40
15°	407	397	378	369	365	115
25°	365	345	317	301	293	168
35°	311	282	246	224	212	195
45°	249	214	173	142	129	192
55°	181	146	102	88	85	162
65°	107	79	60	55	54	105
75°	38	33	30	29	29	42
85°	6	7	8	8	8	8
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	427.0	427.0	427.0	427.0	427.0
2.5°	426.1	427.0	423.3	426.6	427.5
5°	425.2	424.2	418.7	420.1	419.6
7.5°	422.4	420.5	411.3	410.3	408.5
10°	418.7	414.0	401.1	397.8	395.0
12.5°	413.6	406.2	390.4	383.9	380.7
15°	406.6	397.3	377.9	369.1	364.9
17.5°	398.3	385.3	364.9	352.8	348.2
20°	388.5	373.2	349.6	335.7	330.1
22.5°	377.9	359.8	333.4	318.5	312.5
25°	365.4	345.4	317.1	300.9	293.0
27.5°	352.8	330.6	300.0	281.9	273.5
30°	340.3	314.8	281.4	262.0	253.1
32.5°	326.9	298.6	264.3	242.9	232.7
35°	311.1	282.4	245.7	223.5	212.3
37.5°	295.8	265.2	227.6	202.6	191.9
40°	281.4	249.0	209.6	182.2	171.1
42.5°	265.2	231.8	191.5	162.7	150.2
45°	249.0	214.2	172.9	141.9	129.4
47.5°	231.8	197.5	153.5	122.9	114.5
50°	216.5	180.4	136.3	108.5	102.9
52.5°	198.9	163.7	118.7	97.4	93.7
55°	181.3	145.6	101.5	87.6	84.8
57.5°	163.2	129.4	88.1	79.3	76.5
60°	144.2	112.7	77.4	70.5	69.1
62.5°	125.2	95.5	68.2	63.1	61.2
65°	106.6	79.3	59.8	55.2	54.2
67.5°	87.6	64.4	51.5	48.2	47.8
70°	70.0	52.4	43.6	41.7	40.8
72.5°	53.8	41.7	36.6	35.2	34.8
75°	38.0	33.4	30.1	29.2	28.7
77.5°	25.5	25.5	24.1	23.2	23.6
80°	17.6	18.5	18.1	18.1	18.1
82.5°	11.6	12.5	13.0	13.0	13.0
85°	6.5	7.4	7.9	7.9	8.3
87.5°	2.3	2.8	3.2	3.7	3.7
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	14.30	15.79	14.67	16.11	16.42	10.54	12.03	10.91	12.35	12.66
	3H	15.61	16.95	15.99	17.28	17.64	12.13	13.46	12.50	13.79	14.15
	4H	15.98	17.23	16.38	17.58	17.96	12.73	13.98	13.13	14.33	14.71
	6H	16.16	17.31	16.57	17.68	18.07	13.20	14.35	13.61	14.72	15.11
	8H	16.19	17.29	16.62	17.68	18.09	13.36	14.46	13.79	14.85	15.25
	12H	16.21	17.26	16.64	17.64	18.07	13.47	14.52	13.90	14.91	15.33
4H	2H	14.41	15.67	14.81	16.02	16.39	11.20	12.46	11.60	12.81	13.18
	3H	15.90	16.94	16.31	17.34	17.74	12.98	14.02	13.40	14.42	14.82
	4H	16.38	17.31	16.81	17.72	18.16	13.70	14.63	14.13	15.05	15.49
	6H	16.66	17.47	17.12	17.91	18.37	14.29	15.10	14.75	15.55	16.01
	8H	16.73	17.49	17.19	17.93	18.40	14.50	15.25	14.96	15.70	16.17
	12H	16.77	17.45	17.25	17.92	18.40	14.65	15.33	15.13	15.81	16.28
8H	4H	16.46	17.22	16.92	17.66	18.13	14.01	14.77	14.48	15.21	15.68
	6H	16.82	17.45	17.32	17.94	18.42	14.72	15.34	15.22	15.84	16.31
	8H	16.94	17.50	17.45	18.01	18.50	15.00	15.56	15.51	16.07	16.56
	12H	17.02	17.52	17.53	18.01	18.58	15.23	15.72	15.74	16.22	16.78
12H	4H	16.45	17.13	16.93	17.61	18.08	14.04	14.71	14.52	15.19	15.66
	6H	16.82	17.38	17.34	17.90	18.38	14.77	15.33	15.29	15.84	16.33
	8H	16.98	17.48	17.49	17.97	18.54	15.11	15.60	15.62	16.10	16.66