

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: P1061873

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1061873
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-85)
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-S
Description: DEFINE 5 SILVER 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

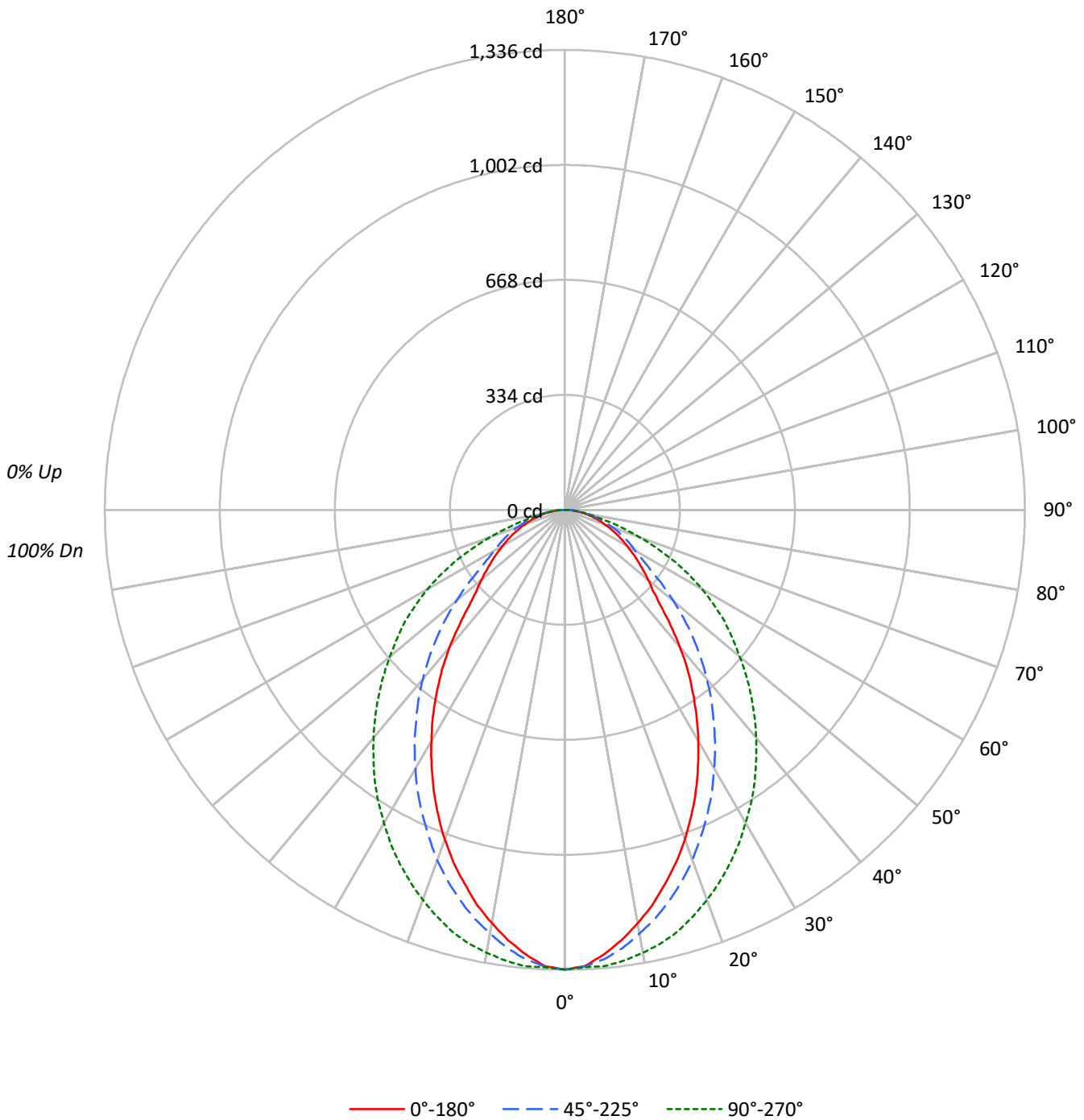
Lumens per Lamp: N/A
Luminaire Lumens: 2503.6 lumens
Efficiency: N/A
Efficacy: 80.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.18 / 1.12
Luminous Opening: Rectangular (W 0.39' x L: 4' x H: 0')
CIE Type: Direct

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					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	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88				86	
2	101	94	88	83	99	92	86	82	89	84	80	85	81	78	82	79	76				74	
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66				64	
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58				56	
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52				50	
6	74	62	54	48	72	61	53	48	59	52	47	58	52	47	56	51	46				44	
7	69	57	49	43	68	56	48	43	54	47	42	53	47	42	52	46	42				40	
8	65	52	44	39	63	52	44	39	50	43	38	49	43	38	48	42	38				36	
9	61	48	41	35	59	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°	9195	9195	9195
5°	8963	9055	9194
10°	8525	8740	9132
15°	8017	8369	9035
20°	7469	7938	8837
25°	6842	7430	8616
30°	6163	6895	8348
35°	5450	6336	8085
40°	4676	5768	7771
45°	3820	5132	7444
50°	3387	4401	7103
55°	3107	3652	6806
60°	2866	3233	6339
65°	2673	3108	5652
70°	2498	2955	4620
75°	2306	2769	3408
80°	2169	2593	2486
85°	1999	2528	2109

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7444 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.6	4.9
10°-20°	332.9	13.3
20°-30°	457.5	18.3
30°-40°	484.9	19.4
40°-50°	423.3	16.9
50°-60°	321.6	12.8
60°-70°	215.5	8.6
70°-80°	111.1	4.4
80°-90°	33.3	1.3
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°	914.0	36.5
0°-40°	1398.9	55.9
0°-60°	2143.8	85.6
0°-90°	2503.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2503.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1336	1336	1336	1336	1336	
5°	1297	1310	1310	1320	1330	121
15°	1125	1146	1174	1226	1268	316
25°	901	929	978	1059	1134	413
35°	648	686	754	861	962	404
45°	392	431	527	652	764	310
55°	259	267	304	447	567	232
65°	164	168	191	255	347	163
75°	87	92	104	111	128	93
85°	25	32	32	29	27	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1335.5	1335.5	1335.5	1335.5	1335.5
2.5°	1326.2	1335.5	1327.5	1327.5	1330.2
5°	1296.8	1310.2	1310.2	1319.5	1330.2
7.5°	1260.8	1275.5	1283.5	1304.8	1320.8
10°	1219.4	1235.5	1250.1	1282.2	1306.2
12.5°	1175.4	1192.8	1215.4	1256.8	1290.2
15°	1124.7	1146.1	1174.1	1226.1	1267.5
17.5°	1074.0	1095.4	1130.1	1191.4	1238.1
20°	1019.3	1042.0	1083.4	1150.1	1206.1
22.5°	960.6	986.0	1030.0	1106.0	1171.4
25°	900.6	928.6	978.0	1059.3	1134.1
27.5°	837.9	871.2	924.6	1011.3	1094.0
30°	775.2	808.5	867.2	961.9	1050.0
32.5°	712.5	748.5	812.5	912.6	1007.3
35°	648.4	685.8	753.8	860.6	961.9
37.5°	585.7	623.1	699.1	809.9	912.6
40°	520.3	559.0	641.7	757.8	864.6
42.5°	453.6	495.0	584.4	704.5	815.2
45°	392.3	430.9	527.0	652.4	764.5
47.5°	346.9	372.2	469.6	599.1	715.1
50°	316.2	329.5	410.9	547.0	663.1
52.5°	285.5	296.2	356.2	493.6	613.7
55°	258.8	266.8	304.2	447.0	567.0
57.5°	232.1	240.2	264.2	400.3	512.3
60°	208.1	214.8	234.8	350.9	460.3
62.5°	185.5	190.8	212.1	304.2	404.3
65°	164.1	168.1	190.8	254.8	346.9
67.5°	142.8	146.8	169.4	208.1	285.5
70°	124.1	125.4	146.8	169.4	229.5
72.5°	105.4	106.7	124.1	137.4	176.1
75°	86.7	92.1	104.1	110.7	128.1
77.5°	70.7	77.4	84.1	86.7	86.7
80°	54.7	62.7	65.4	65.4	62.7
82.5°	40.0	46.7	48.0	45.4	42.7
85°	25.3	32.0	32.0	29.4	26.7
87.5°	12.0	17.3	17.3	16.0	12.0
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	14.32	15.81	14.68	16.13	16.44	18.24	19.74	18.61	20.05	20.37
	3H	15.89	17.23	16.27	17.56	17.92	19.67	21.01	20.04	21.34	21.70
	4H	16.50	17.76	16.90	18.11	18.49	20.08	21.34	20.48	21.69	22.07
	6H	17.00	18.16	17.41	18.53	18.92	20.30	21.46	20.71	21.83	22.22
	8H	17.17	18.28	17.60	18.67	19.07	20.35	21.46	20.78	21.85	22.25
	12H	17.29	18.35	17.72	18.73	19.16	20.39	21.45	20.82	21.83	22.26
4H	2H	15.05	16.31	15.45	16.66	17.04	18.37	19.63	18.77	19.98	20.36
	3H	16.83	17.88	17.24	18.28	18.68	19.98	21.02	20.39	21.42	21.83
	4H	17.57	18.51	18.00	18.92	19.36	20.51	21.45	20.94	21.86	22.30
	6H	18.20	19.02	18.66	19.46	19.92	20.85	21.67	21.31	22.11	22.57
	8H	18.43	19.20	18.90	19.64	20.11	20.95	21.71	21.41	22.16	22.62
	12H	18.60	19.29	19.09	19.77	20.24	21.02	21.70	21.50	22.18	22.65
8H	4H	17.97	18.73	18.43	19.18	19.64	20.61	21.38	21.08	21.82	22.29
	6H	18.75	19.39	19.25	19.88	20.36	21.05	21.68	21.55	22.17	22.65
	8H	19.08	19.65	19.59	20.16	20.64	21.21	21.78	21.72	22.29	22.78
	12H	19.35	19.85	19.86	20.35	20.91	21.35	21.85	21.86	22.34	22.90
12H	4H	18.01	18.69	18.49	19.17	19.65	20.61	21.30	21.10	21.77	22.25
	6H	18.84	19.41	19.35	19.92	20.40	21.07	21.64	21.58	22.15	22.63
	8H	19.23	19.73	19.74	20.23	20.79	21.28	21.78	21.79	22.27	22.84