

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: P1059136

Luminaire Tested: S123RDR-S1165D930-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059136
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-28)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S1165D930-X4F0-XX-UDD-WVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

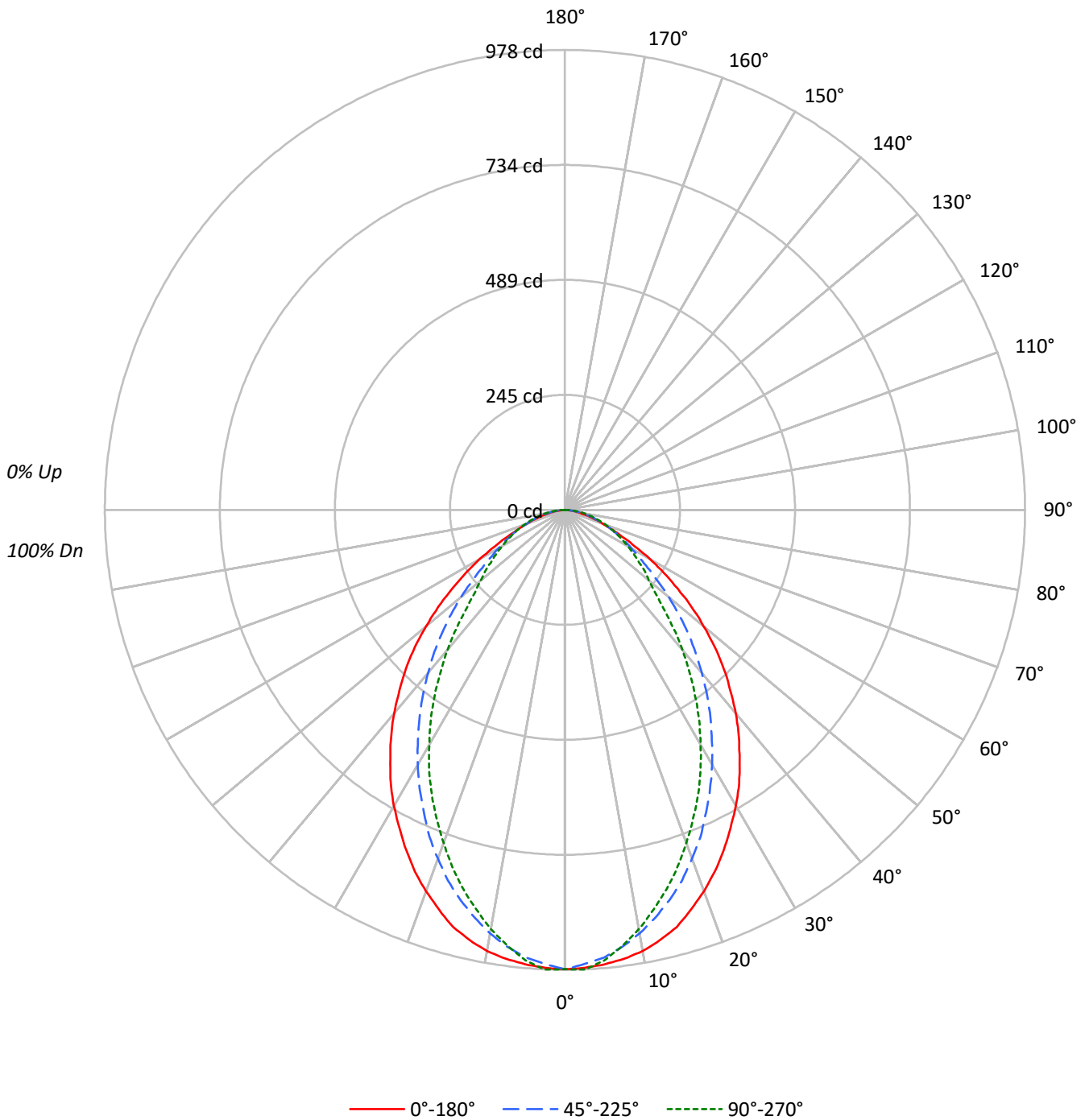
Lumens per Lamp: N/A
Luminaire Lumens: 1708.8 lumens
Efficiency: N/A
Efficacy: 40.9 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
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				
1	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	88				
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76				
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66				
4	87	77	69	63	85	76	68	63	73	67	62	71	66	61	69	64	60	58				
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52				
6	76	64	56	50	74	63	55	50	61	54	49	59	53	49	58	53	48	47				
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44	42				
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40	38				
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	41	37	35				
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	38	34	32				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11472	11472	11472
5°	11434	11267	11337
10°	11356	10908	10796
15°	11163	10435	10151
20°	10785	9862	9421
25°	10347	9190	8673
30°	9856	8487	7818
35°	9276	7726	6919
40°	8659	6930	5958
45°	7938	6123	4896
50°	7037	5256	4247
55°	5986	4399	3894
60°	4883	3833	3612
65°	3720	3393	3362
70°	2905	3025	3145
75°	2346	2718	2931
80°	1745	2225	2698
85°	943	1428	2371

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7938 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.7	5.3
10°-20°	244.0	14.3
20°-30°	331.7	19.4
30°-40°	343.9	20.1
40°-50°	290.0	17.0
50°-60°	205.9	12.0
60°-70°	125.8	7.4
70°-80°	62.6	3.7
80°-90°	14.2	0.8
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°	666.4	39.0
0°-40°	1010.3	59.1
0°-60°	1506.2	88.1
0°-90°	1708.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1708.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	977	977	977	977	977	
5°	970	970	956	962	962	92
15°	918	901	858	843	835	258
25°	799	763	709	684	669	367
35°	647	598	539	501	483	405
45°	478	428	369	318	295	367
55°	292	262	215	196	190	263
65°	134	129	122	122	121	137
75°	52	55	60	62	65	56
85°	7	8	11	15	18	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	977.0	977.0	977.0	977.0	977.0
2.5°	974.7	975.9	966.5	977.0	978.2
5°	970.0	970.0	955.9	961.8	961.8
7.5°	963.0	960.6	937.1	937.1	934.8
10°	952.4	945.3	914.8	908.9	905.4
12.5°	937.1	925.4	887.8	877.2	870.2
15°	918.3	900.7	858.4	843.2	835.0
17.5°	891.3	873.7	826.7	805.6	796.2
20°	863.1	837.3	789.2	768.0	753.9
22.5°	832.6	799.7	752.8	726.9	711.6
25°	798.6	763.3	709.3	683.5	669.4
27.5°	762.1	723.4	668.2	638.8	624.7
30°	726.9	682.3	625.9	593.0	576.6
32.5°	689.3	638.8	581.3	547.2	530.8
35°	647.1	597.7	539.0	501.4	482.7
37.5°	607.1	556.6	495.6	455.6	434.5
40°	564.9	514.4	452.1	411.0	388.7
42.5°	520.2	472.1	411.0	362.9	341.7
45°	478.0	427.5	368.7	318.2	294.8
47.5°	432.2	385.2	327.6	276.0	259.5
50°	385.2	341.7	287.7	240.7	232.5
52.5°	339.4	303.0	247.8	217.3	213.7
55°	292.4	261.9	214.9	196.1	190.2
57.5°	249.0	226.6	184.4	175.0	172.6
60°	207.9	189.1	163.2	157.4	153.8
62.5°	167.9	157.4	142.1	139.7	137.4
65°	133.9	129.2	122.1	122.1	121.0
67.5°	105.7	105.7	104.5	106.9	105.7
70°	84.6	85.7	88.1	90.4	91.6
72.5°	66.9	70.5	72.8	76.3	77.5
75°	51.7	55.2	59.9	62.2	64.6
77.5°	37.6	41.1	45.8	49.3	51.7
80°	25.8	28.2	32.9	37.6	39.9
82.5°	16.4	17.6	21.1	25.8	28.2
85°	7.0	8.2	10.6	15.3	17.6
87.5°	0.0	0.0	1.2	4.7	8.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)