

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: P1059087

Luminaire Tested: S123RDR-S1165D830-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059087
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-66)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-S1165D830-X4F0-XX-UDD-BVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

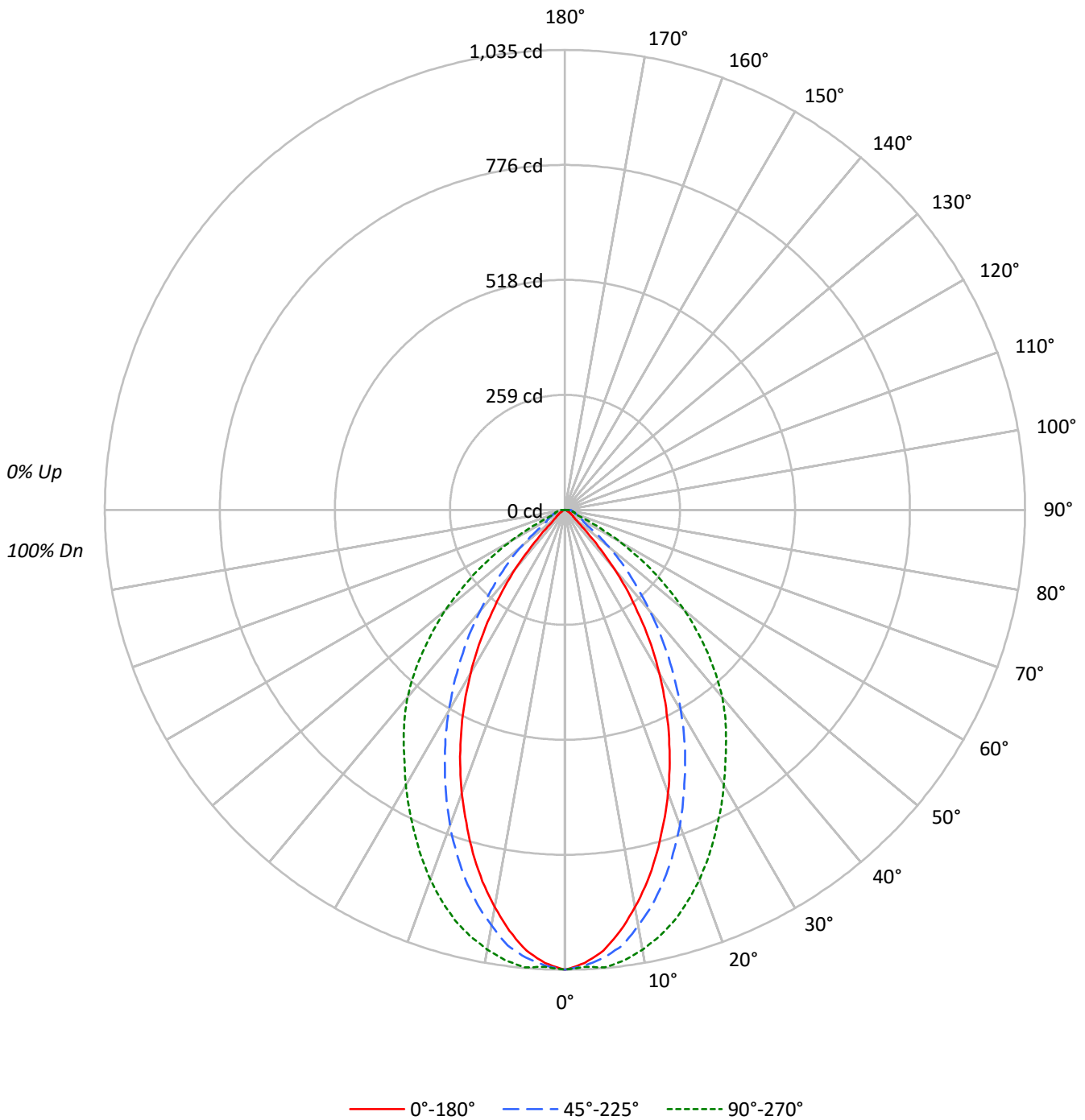
Lumens per Lamp: N/A
Luminaire Lumens: 1242.3 lumens
Efficiency: N/A
Efficacy: 29.7 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90				
2	105	99	94	90	102	97	92	88	94	90	87	91	87	85	88	85	83	81				
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73				
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68	66				
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60				
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55				
7	76	65	58	53	75	65	58	53	63	57	53	62	56	52	61	56	52	50				
8	72	61	54	49	70	60	53	49	59	53	49	58	52	48	57	52	48	47				
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43				
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	42	40				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12151	12151	12151
5°	11732	11924	12181
10°	10830	11333	11981
15°	9719	10480	11621
20°	8479	9447	11061
25°	7153	8280	10377
30°	5752	7079	9697
35°	4210	5829	9064
40°	2626	4543	8441
45°	993	3388	7519
50°	471	2335	6408
55°	362	1280	4954
60°	256	1085	3257
65°	189	945	1361
70°	185	886	886
75°	245	926	926
80°	365	1102	1014
85°	728	1832	1469

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7519 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.0	7.6
10°-20°	243.6	19.6
20°-30°	301.5	24.3
30°-40°	270.3	21.8
40°-50°	177.2	14.3
50°-60°	88.7	7.1
60°-70°	34.6	2.8
70°-80°	19.5	1.6
80°-90°	12.0	1.0
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°	640.1	51.5
0°-40°	910.3	73.3
0°-60°	1176.2	94.7
0°-90°	1242.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1242.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1035	1035	1035	1035	1035	
5°	995	1012	1012	1022	1033	92
15°	800	832	862	919	956	223
25°	552	586	639	730	801	252
35°	294	333	407	529	632	183
45°	60	96	204	350	453	57
55°	18	22	62	171	242	16
65°	7	20	34	45	49	7
75°	5	20	20	20	20	6
85°	5	14	14	14	11	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1034.8	1034.8	1034.8	1034.8	1034.8
2.5°	1021.2	1036.1	1026.6	1028.0	1029.3
5°	995.3	1011.6	1011.6	1022.5	1033.4
7.5°	955.9	974.9	988.5	1007.6	1022.5
10°	908.3	931.4	950.5	984.4	1004.8
12.5°	856.6	885.2	909.7	954.5	983.1
15°	799.5	832.2	862.1	919.2	955.9
17.5°	738.3	771.0	810.4	877.0	921.9
20°	678.5	711.1	756.0	830.8	885.2
22.5°	616.0	650.0	697.5	780.5	844.4
25°	552.1	586.0	639.1	730.2	800.9
27.5°	488.1	522.1	582.0	681.2	758.7
30°	424.2	458.2	522.1	628.2	715.2
32.5°	360.3	397.0	463.7	579.2	671.7
35°	293.7	333.1	406.6	528.9	632.3
37.5°	232.5	269.2	352.2	485.4	592.8
40°	171.3	210.8	296.4	443.3	550.7
42.5°	111.5	153.7	246.1	397.0	503.1
45°	59.8	96.5	204.0	349.5	452.8
47.5°	32.6	53.0	164.5	299.1	401.1
50°	25.8	29.9	127.8	255.6	350.8
52.5°	21.8	24.5	91.1	214.8	295.1
55°	17.7	21.8	62.5	171.3	242.0
57.5°	15.0	19.0	49.0	133.3	189.0
60°	10.9	16.3	46.2	97.9	138.7
62.5°	8.2	17.7	40.8	68.0	91.1
65°	6.8	20.4	34.0	44.9	49.0
67.5°	5.4	21.8	29.9	28.6	28.6
70°	5.4	20.4	25.8	24.5	25.8
72.5°	5.4	21.8	23.1	21.8	23.1
75°	5.4	20.4	20.4	20.4	20.4
77.5°	5.4	19.0	19.0	17.7	17.7
80°	5.4	16.3	16.3	16.3	15.0
82.5°	5.4	15.0	15.0	15.0	12.2
85°	5.4	13.6	13.6	13.6	10.9
87.5°	4.1	12.2	13.6	12.2	8.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)