

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: P1059154

Luminaire Tested: S123RDR-S1165D940-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059154
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-S1165D940-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: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

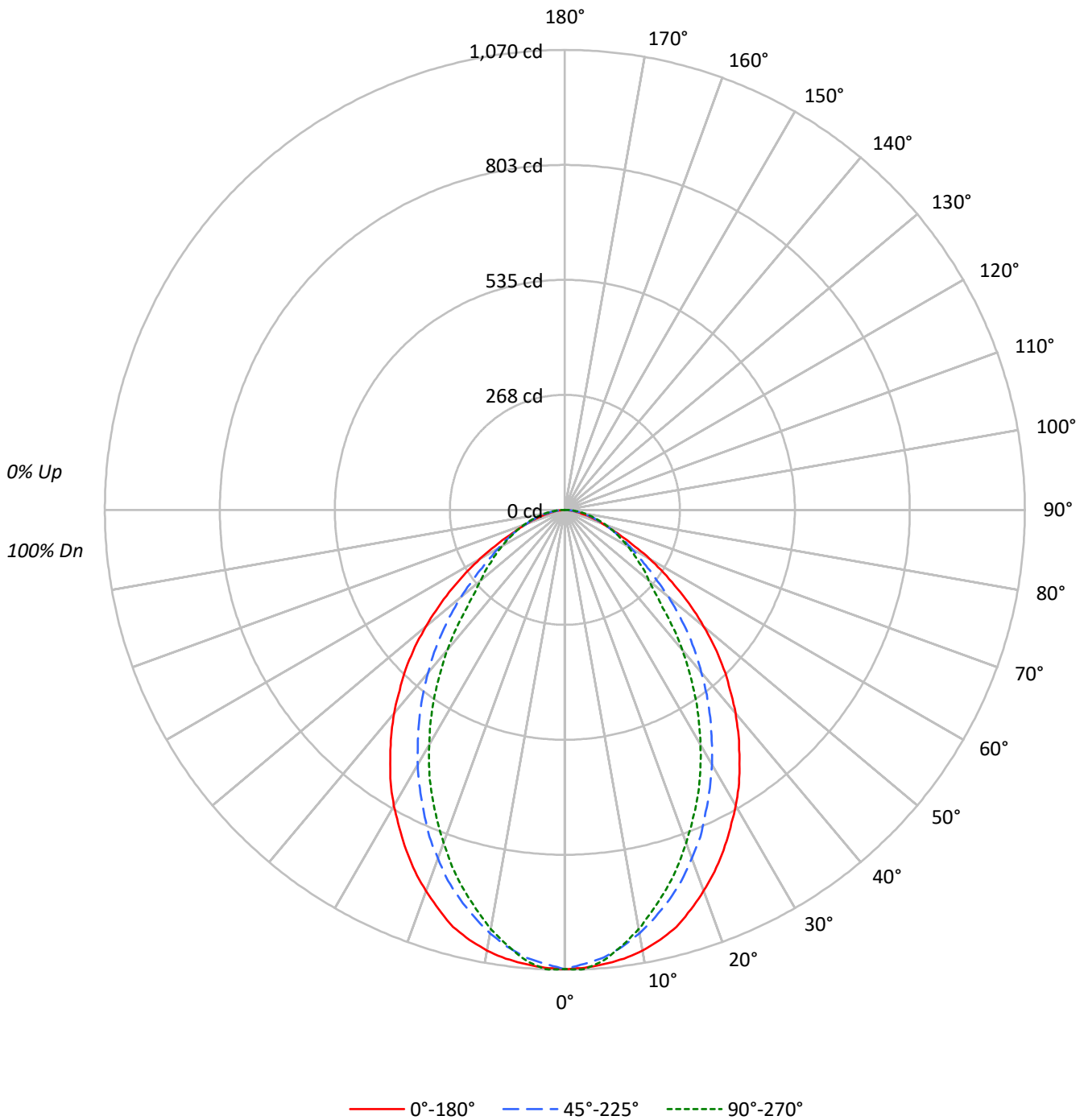
Lumens per Lamp: N/A
Luminaire Lumens: 1869.0 lumens
Efficiency: N/A
Efficacy: 44.7 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	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°	12548	12548	12548
5°	12505	12324	12399
10°	12420	11930	11808
15°	12210	11414	11101
20°	11796	10785	10304
25°	11316	10052	9485
30°	10779	9282	8550
35°	10145	8450	7567
40°	9470	7580	6516
45°	8682	6697	5354
50°	7696	5749	4646
55°	6547	4811	4260
60°	5338	4192	3953
65°	4068	3712	3676
70°	3176	3306	3440
75°	2563	2972	3203
80°	1914	2434	2955
85°	1037	1563	2600

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8682 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.2	5.3
10°-20°	266.9	14.3
20°-30°	362.8	19.4
30°-40°	376.1	20.1
40°-50°	317.2	17.0
50°-60°	225.2	12.0
60°-70°	137.6	7.4
70°-80°	68.5	3.7
80°-90°	15.5	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°	728.9	39.0
0°-40°	1105.0	59.1
0°-60°	1647.4	88.1
0°-90°	1869.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1869.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1069	1069	1069	1069	1069	
5°	1061	1061	1046	1052	1052	101
15°	1004	985	939	922	913	282
25°	873	835	776	748	732	401
35°	708	654	590	548	528	443
45°	523	468	403	348	322	401
55°	320	286	235	214	208	287
65°	146	141	134	134	132	149
75°	56	60	66	68	71	61
85°	8	9	12	17	19	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1068.6	1068.6	1068.6	1068.6	1068.6
2.5°	1066.1	1067.3	1057.1	1068.6	1069.9
5°	1060.9	1060.9	1045.5	1051.9	1051.9
7.5°	1053.2	1050.6	1025.0	1025.0	1022.4
10°	1041.6	1033.9	1000.5	994.1	990.3
12.5°	1025.0	1012.1	971.0	959.4	951.7
15°	1004.4	985.1	938.9	922.2	913.2
17.5°	974.9	955.6	904.2	881.1	870.8
20°	944.0	915.8	863.1	840.0	824.6
22.5°	910.6	874.7	823.3	795.0	778.3
25°	873.4	834.9	775.8	747.5	732.1
27.5°	833.6	791.2	730.8	698.7	683.3
30°	795.0	746.2	684.6	648.6	630.6
32.5°	753.9	698.7	635.8	598.5	580.5
35°	707.7	653.8	589.5	548.4	527.9
37.5°	664.0	608.8	542.0	498.3	475.2
40°	617.8	562.6	494.5	449.5	425.1
42.5°	569.0	516.3	449.5	396.9	373.8
45°	522.8	467.5	403.3	348.1	322.4
47.5°	472.7	421.3	358.3	301.8	283.9
50°	421.3	373.8	314.7	263.3	254.3
52.5°	371.2	331.4	271.0	237.6	233.8
55°	319.8	286.4	235.0	214.5	208.1
57.5°	272.3	247.9	201.7	191.4	188.8
60°	227.3	206.8	178.5	172.1	168.3
62.5°	183.7	172.1	155.4	152.8	150.3
65°	146.4	141.3	133.6	133.6	132.3
67.5°	115.6	115.6	114.3	116.9	115.6
70°	92.5	93.8	96.3	98.9	100.2
72.5°	73.2	77.1	79.6	83.5	84.8
75°	56.5	60.4	65.5	68.1	70.6
77.5°	41.1	45.0	50.1	53.9	56.5
80°	28.3	30.8	36.0	41.1	43.7
82.5°	18.0	19.3	23.1	28.3	30.8
85°	7.7	9.0	11.6	16.7	19.3
87.5°	0.0	0.0	1.3	5.1	9.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)