

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 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: S123RDRP-S1165D940-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
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: S123RDRP-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

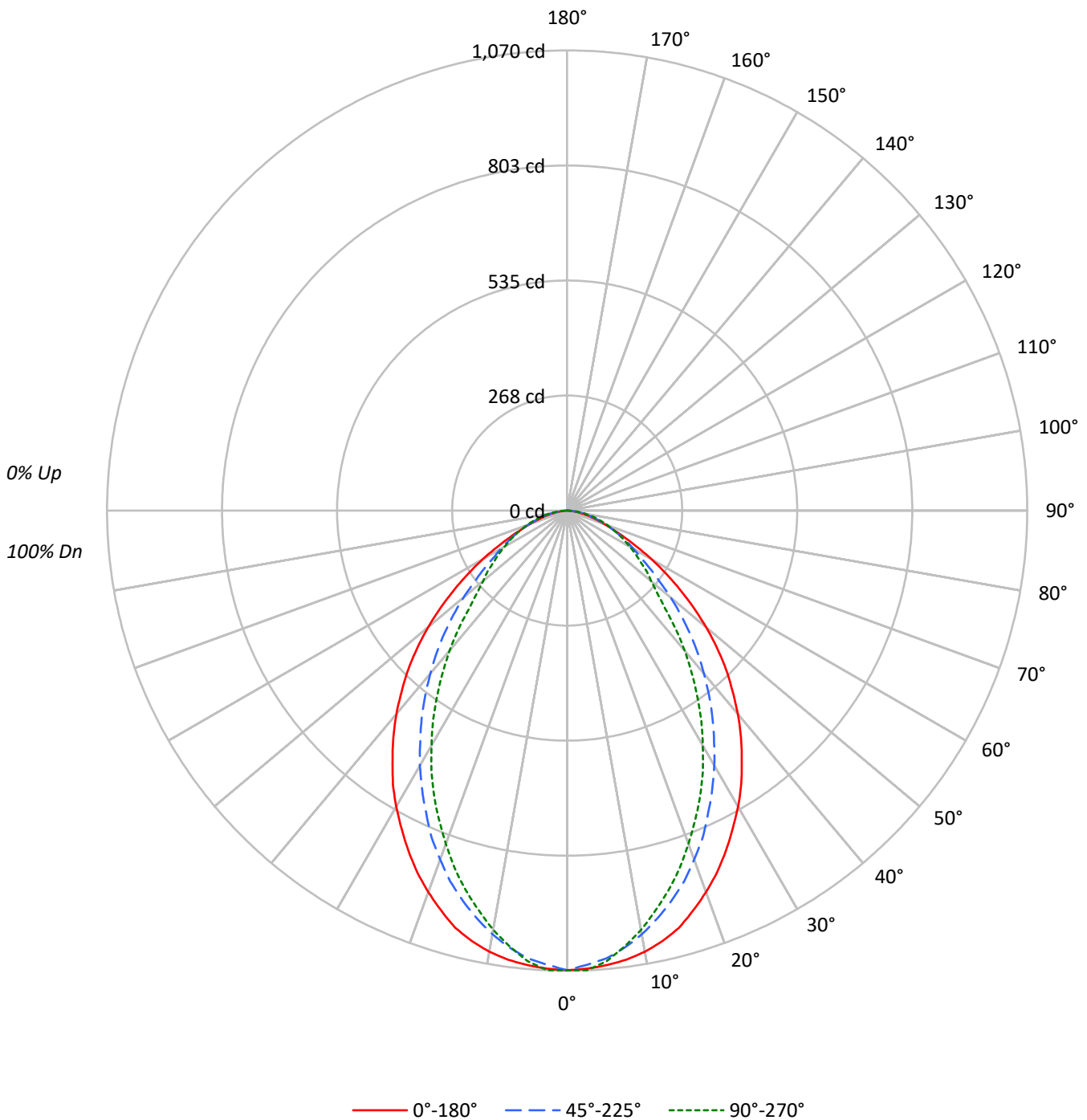
Lumens per Lamp: N/A
Luminaire Lumens: 1869.0 lumens
Efficiency: N/A
Efficacy: 44.7 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 41.8
Input Voltage (V): 120
Input Current (A_{in}): 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	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	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



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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	17.60	19.05	17.96	19.36	19.68	15.70	17.15	16.06	17.46	17.77
	3H	18.50	19.79	18.87	20.12	20.48	17.27	18.56	17.65	18.89	19.26
	4H	18.78	19.99	19.18	20.34	20.72	17.86	19.08	18.26	19.43	19.81
	6H	18.93	20.05	19.34	20.41	20.81	18.31	19.43	18.73	19.80	20.19
	8H	18.95	20.01	19.38	20.40	20.81	18.46	19.53	18.89	19.92	20.32
	12H	18.94	19.96	19.38	20.34	20.77	18.56	19.58	18.99	19.96	20.39
4H	2H	17.84	19.05	18.24	19.40	19.78	16.24	17.45	16.64	17.80	18.18
	3H	18.96	19.96	19.37	20.36	20.76	18.01	19.01	18.42	19.41	19.81
	4H	19.35	20.24	19.78	20.66	21.10	18.72	19.62	19.16	20.04	20.48
	6H	19.59	20.37	20.05	20.81	21.27	19.29	20.07	19.75	20.52	20.98
	8H	19.63	20.36	20.10	20.80	21.27	19.48	20.21	19.95	20.66	21.13
	12H	19.64	20.29	20.12	20.77	21.24	19.62	20.27	20.11	20.75	21.22
8H	4H	19.50	20.23	19.97	20.68	21.14	18.93	19.66	19.40	20.10	20.57
	6H	19.82	20.41	20.31	20.91	21.39	19.61	20.21	20.11	20.70	21.18
	8H	19.89	20.43	20.41	20.94	21.43	19.86	20.40	20.38	20.91	21.40
	12H	19.93	20.40	20.44	20.90	21.46	20.07	20.55	20.58	21.04	21.61
12H	4H	19.51	20.15	19.99	20.63	21.11	18.93	19.58	19.41	20.06	20.53
	6H	19.83	20.37	20.35	20.88	21.37	19.62	20.15	20.13	20.67	21.15
	8H	19.95	20.42	20.46	20.91	21.48	19.92	20.39	20.43	20.89	21.45