

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: P1059100

Luminaire Tested: S123RDRP-S1165D835-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059100
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-S1165D835-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: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

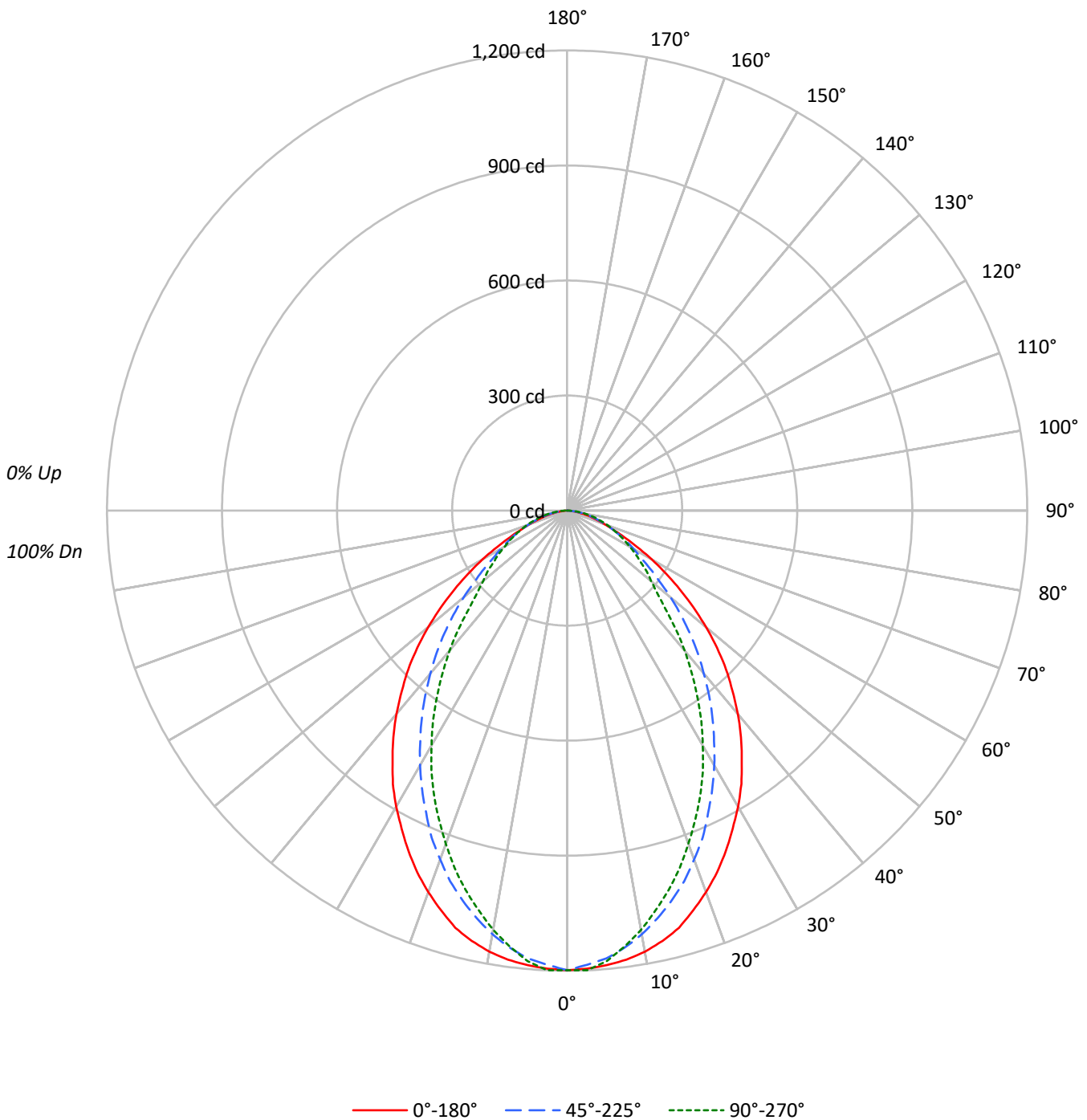
Lumens per Lamp: N/A
Luminaire Lumens: 2096.0 lumens
Efficiency: N/A
Efficacy: 50.1 lumens/watt
Spacing Criteria (0/90/45): 1.12 / 0.95 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	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°	14072	14072	14072
5°	14025	13821	13905
10°	13928	13379	13241
15°	13693	12800	12450
20°	13230	12095	11555
25°	12691	11272	10637
30°	12089	10409	9589
35°	11376	9477	8486
40°	10620	8500	7309
45°	9735	7511	6003
50°	8630	6447	5210
55°	7343	5397	4776
60°	5986	4702	4432
65°	4562	4162	4123
70°	3560	3708	3856
75°	2876	3335	3593
80°	2144	2725	3313
85°	1159	1751	2910

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9735 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.2	5.3
10°-20°	299.3	14.3
20°-30°	406.9	19.4
30°-40°	421.8	20.1
40°-50°	355.7	17.0
50°-60°	252.5	12.0
60°-70°	154.3	7.4
70°-80°	76.8	3.7
80°-90°	17.4	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°	817.4	39.0
0°-40°	1239.2	59.1
0°-60°	1847.4	88.1
0°-90°	2096.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2096.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1198	1198	1198	1198	1198	
5°	1190	1190	1172	1180	1180	113
15°	1126	1105	1053	1034	1024	316
25°	980	936	870	838	821	450
35°	794	733	661	615	592	496
45°	586	524	452	390	362	450
55°	359	321	264	240	233	322
65°	164	158	150	150	148	168
75°	63	68	74	76	79	68
85°	9	10	13	19	22	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1198.4	1198.4	1198.4	1198.4	1198.4
2.5°	1195.5	1197.0	1185.4	1198.4	1199.8
5°	1189.8	1189.8	1172.5	1179.7	1179.7
7.5°	1181.1	1178.2	1149.4	1149.4	1146.5
10°	1168.1	1159.5	1122.1	1114.9	1110.5
12.5°	1149.4	1135.0	1088.9	1076.0	1067.3
15°	1126.4	1104.8	1052.9	1034.2	1024.1
17.5°	1093.2	1071.6	1014.0	988.1	976.6
20°	1058.7	1027.0	967.9	942.0	924.7
22.5°	1021.2	980.9	923.3	891.6	872.9
25°	979.5	936.2	870.0	838.3	821.0
27.5°	934.8	887.3	819.6	783.6	766.3
30°	891.6	836.9	767.7	727.4	707.2
32.5°	845.5	783.6	713.0	671.2	651.1
35°	793.6	733.2	661.1	615.0	592.0
37.5°	744.7	682.7	607.8	558.9	532.9
40°	692.8	630.9	554.5	504.1	476.8
42.5°	638.1	579.0	504.1	445.1	419.2
45°	586.2	524.3	452.3	390.3	361.5
47.5°	530.1	472.4	401.9	338.5	318.3
50°	472.4	419.2	352.9	295.3	285.2
52.5°	416.3	371.6	303.9	266.5	262.1
55°	358.7	321.2	263.6	240.5	233.3
57.5°	305.4	278.0	226.1	214.6	211.7
60°	254.9	231.9	200.2	193.0	188.7
62.5°	206.0	193.0	174.3	171.4	168.5
65°	164.2	158.4	149.8	149.8	148.4
67.5°	129.6	129.6	128.2	131.1	129.6
70°	103.7	105.1	108.0	110.9	112.3
72.5°	82.1	86.4	89.3	93.6	95.1
75°	63.4	67.7	73.5	76.3	79.2
77.5°	46.1	50.4	56.2	60.5	63.4
80°	31.7	34.6	40.3	46.1	49.0
82.5°	20.2	21.6	25.9	31.7	34.6
85°	8.6	10.1	13.0	18.7	21.6
87.5°	0.0	0.0	1.4	5.8	10.1
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	18.00	19.45	18.36	19.76	20.07	16.09	17.54	16.46	17.86	18.17
	3H	18.89	20.19	19.27	20.52	20.88	17.66	18.96	18.04	19.29	19.65
	4H	19.18	20.39	19.58	20.74	21.12	18.26	19.47	18.66	19.82	20.20
	6H	19.33	20.44	19.74	20.81	21.20	18.71	19.83	19.12	20.20	20.59
	8H	19.35	20.41	19.78	20.80	21.20	18.86	19.92	19.29	20.31	20.72
	12H	19.34	20.36	19.77	20.74	21.17	18.96	19.98	19.39	20.36	20.79
4H	2H	18.24	19.45	18.64	19.80	20.18	16.63	17.85	17.03	18.20	18.58
	3H	19.35	20.35	19.76	20.75	21.16	18.41	19.41	18.82	19.81	20.21
	4H	19.74	20.64	20.18	21.06	21.50	19.12	20.02	19.55	20.43	20.87
	6H	19.98	20.76	20.44	21.21	21.67	19.69	20.47	20.15	20.91	21.38
	8H	20.03	20.76	20.49	21.20	21.67	19.88	20.61	20.35	21.06	21.52
	12H	20.04	20.68	20.52	21.16	21.64	20.02	20.67	20.51	21.15	21.62
8H	4H	19.90	20.63	20.37	21.07	21.54	19.33	20.06	19.79	20.50	20.97
	6H	20.21	20.81	20.71	21.31	21.78	20.00	20.60	20.50	21.10	21.57
	8H	20.29	20.83	20.81	21.34	21.83	20.26	20.80	20.78	21.31	21.80
	12H	20.32	20.80	20.84	21.29	21.86	20.47	20.94	20.98	21.44	22.01
12H	4H	19.91	20.55	20.39	21.03	21.50	19.33	19.97	19.81	20.45	20.93
	6H	20.23	20.77	20.74	21.28	21.77	20.01	20.55	20.53	21.06	21.55
	8H	20.34	20.82	20.85	21.31	21.88	20.32	20.79	20.83	21.28	21.85