

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: P242875

Luminaire Tested: S125RDRP-S610D830-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242875
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-27)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDRP-S610D830-X4F0-XX-UDD-F-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

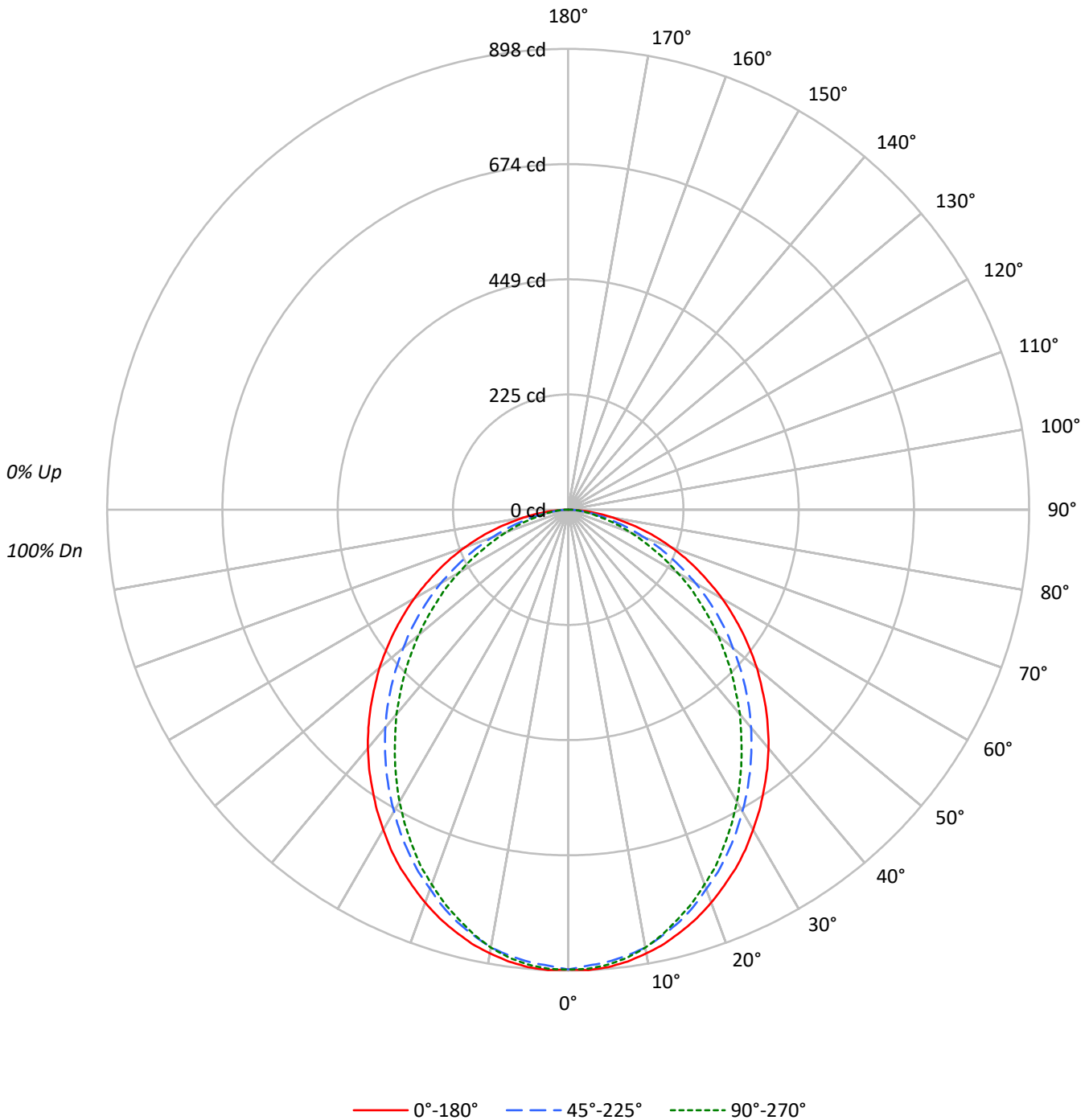
Lumens per Lamp: N/A
Luminaire Lumens: 2117.1 lumens
Efficiency: N/A
Efficacy: 112.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 18.8
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	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85
2	100	92	86	80	98	90	84	79	87	82	78	84	79	76	81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	61
4	84	73	64	58	82	71	64	57	69	62	57	67	61	56	64	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	44	55	48	43	53	47	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38	36
8	62	49	41	35	61	48	41	35	47	40	35	46	39	35	45	39	34	33
9	58	45	37	32	57	45	37	32	44	37	32	42	36	31	41	36	31	29
10	55	42	34	29	54	41	34	29	40	34	29	39	33	29	39	33	29	27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6368	6368	6368
5°	6383	6310	6350
10°	6335	6252	6252
15°	6260	6125	6076
20°	6163	5948	5876
25°	6050	5774	5647
30°	5910	5571	5393
35°	5766	5361	5109
40°	5633	5143	4828
45°	5469	4898	4524
50°	5305	4632	4205
55°	5115	4378	3866
60°	4925	4070	3501
65°	4700	3710	3084
70°	4445	3263	2658
75°	4089	2752	2211
80°	3602	2161	1854
85°	3034	1770	1655

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5469 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.3	4.0
10°-20°	235.7	11.1
20°-30°	341.7	16.1
30°-40°	389.3	18.4
40°-50°	379.5	17.9
50°-60°	319.4	15.1
60°-70°	223.8	10.6
70°-80°	114.7	5.4
80°-90°	28.6	1.4
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°	661.7	31.3
0°-40°	1051.1	49.6
0°-60°	1749.9	82.7
0°-90°	2117.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2117.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	896	896	896	896	896	
5°	895	892	884	891	890	85
15°	851	847	832	832	826	240
25°	772	761	736	728	720	355
35°	665	648	618	598	589	416
45°	544	524	487	460	450	420
55°	413	391	353	323	312	369
65°	280	256	221	194	183	277
75°	149	129	100	85	80	157
85°	37	25	22	21	20	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	896.0	896.0	896.0	896.0	896.0
2.5°	898.1	896.0	889.3	896.0	895.4
5°	894.7	892.0	884.5	891.3	890.0
7.5°	887.9	885.2	876.4	881.8	880.5
10°	877.8	875.7	866.3	868.3	866.3
12.5°	866.3	863.6	850.0	851.4	848.0
15°	850.7	846.6	832.4	831.8	825.7
17.5°	834.5	828.4	811.4	808.1	803.3
20°	814.8	808.1	786.4	783.0	776.9
22.5°	793.2	786.4	763.4	756.0	751.2
25°	771.5	761.4	736.3	727.5	720.1
27.5°	747.2	735.0	708.6	697.1	689.6
30°	720.1	707.2	678.8	663.2	657.1
32.5°	693.7	678.1	649.0	631.4	623.3
35°	664.6	648.3	617.9	598.3	588.8
37.5°	636.8	617.2	586.1	563.1	553.6
40°	607.1	586.8	554.3	528.6	520.4
42.5°	575.9	555.0	521.1	496.7	483.9
45°	544.1	524.5	487.3	460.2	450.1
47.5°	511.0	490.7	453.4	425.7	414.2
50°	479.8	457.5	418.9	390.5	380.3
52.5°	446.0	423.0	387.1	356.0	345.8
55°	412.8	391.2	353.3	322.8	312.0
57.5°	379.0	356.0	319.4	289.7	280.2
60°	346.5	322.8	286.3	256.5	246.3
62.5°	312.0	289.7	252.4	225.4	215.2
65°	279.5	256.5	220.6	193.6	183.4
67.5°	247.0	224.0	189.5	163.8	155.7
70°	213.9	190.8	157.0	136.0	127.9
72.5°	181.4	159.0	127.9	109.0	104.2
75°	148.9	128.6	100.2	85.3	80.5
77.5°	115.7	99.5	75.8	64.3	60.2
80°	88.0	71.7	52.8	46.7	45.3
82.5°	60.9	46.7	35.2	33.2	32.5
85°	37.2	25.0	21.7	21.0	20.3
87.5°	15.6	10.8	10.2	10.2	9.5
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	17.77	19.35	18.14	19.66	19.98	16.20	17.78	16.57	18.09	18.41
	3H	19.56	20.97	19.93	21.30	21.66	17.52	18.94	17.90	19.26	19.63
	4H	20.22	21.55	20.62	21.90	22.28	17.93	19.26	18.33	19.61	19.99
	6H	20.69	21.92	21.10	22.29	22.68	18.18	19.42	18.60	19.78	20.17
	8H	20.84	22.01	21.26	22.40	22.80	18.26	19.44	18.69	19.83	20.23
	12H	20.93	22.06	21.36	22.44	22.87	18.32	19.45	18.75	19.83	20.26
4H	2H	18.16	19.50	18.56	19.84	20.22	16.89	18.22	17.29	18.57	18.95
	3H	20.15	21.26	20.56	21.65	22.06	18.39	19.50	18.80	19.90	20.30
	4H	20.93	21.93	21.36	22.35	22.78	18.89	19.89	19.32	20.30	20.74
	6H	21.52	22.40	21.98	22.84	23.30	19.23	20.10	19.69	20.54	21.00
	8H	21.72	22.53	22.18	22.97	23.44	19.34	20.16	19.80	20.60	21.07
	12H	21.85	22.59	22.34	23.06	23.53	19.43	20.16	19.91	20.63	21.10
8H	4H	21.05	21.87	21.52	22.31	22.78	19.20	20.02	19.66	20.46	20.93
	6H	21.73	22.41	22.23	22.90	23.37	19.63	20.30	20.12	20.79	21.27
	8H	21.98	22.58	22.49	23.09	23.58	19.79	20.39	20.30	20.90	21.39
	12H	22.17	22.71	22.68	23.20	23.76	19.93	20.46	20.43	20.95	21.52
12H	4H	21.05	21.78	21.53	22.26	22.73	19.24	19.97	19.72	20.45	20.92
	6H	21.72	22.33	22.24	22.84	23.33	19.68	20.28	20.19	20.79	21.28
	8H	22.01	22.55	22.52	23.04	23.60	19.88	20.42	20.39	20.91	21.47