

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: P243735

Luminaire Tested: S125RDRP-H610D830-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243735
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-66)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDRP-H610D830-X4F0-XX-UDD-F-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

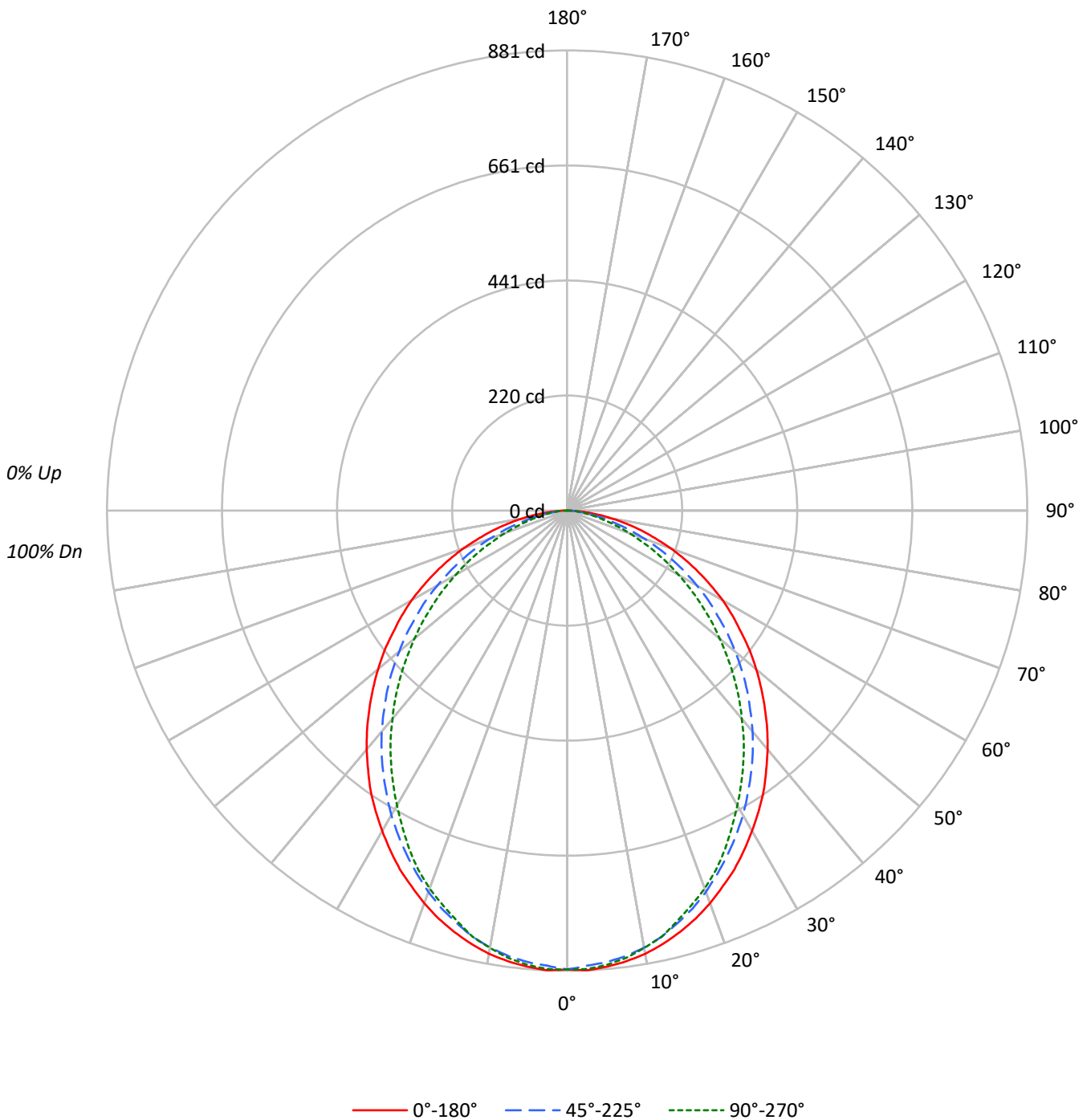
Lumens per Lamp: N/A
Luminaire Lumens: 2099.8 lumens
Efficiency: N/A
Efficacy: 122.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.12 / 1.26
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 17.2
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

TEST NUMBER: P243735

CATALOG NUMBER: S125RDRP-H610D830-X4F0-XX-UDD-F-W

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	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85					85			
2	100	92	86	80	97	90	84	79	87	82	78	84	79	76	81	77	74	72					72			
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	61					61			
4	84	73	64	58	82	71	63	57	69	62	57	67	61	56	64	59	55	53					53			
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46					46			
6	72	59	50	44	70	58	50	44	56	49	43	55	48	43	53	47	43	41					41			
7	67	54	45	39	65	53	45	39	51	44	39	50	43	38	49	43	38	36					36			
8	62	49	41	35	61	48	40	35	47	40	35	46	39	35	45	39	34	32					32			
9	58	45	37	32	57	45	37	32	43	36	31	42	36	31	41	35	31	29					29			
10	55	42	34	29	53	41	34	29	40	33	29	39	33	29	38	33	28	27					27			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6244	6244	6244
5°	6254	6191	6227
10°	6217	6132	6136
15°	6145	6015	5987
20°	6050	5875	5822
25°	5943	5701	5608
30°	5812	5523	5348
35°	5692	5326	5103
40°	5539	5124	4827
45°	5381	4895	4541
50°	5224	4642	4217
55°	5038	4360	3877
60°	4886	4073	3511
65°	4650	3730	3106
70°	4387	3265	2652
75°	4037	2727	2156
80°	3549	2108	1776
85°	3025	1745	1639

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5381 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.7	3.9
10°-20°	231.8	11.0
20°-30°	337.3	16.1
30°-40°	386.2	18.4
40°-50°	377.9	18.0
50°-60°	319.1	15.2
60°-70°	223.4	10.6
70°-80°	113.4	5.4
80°-90°	27.9	1.3
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°	651.8	31.0
0°-40°	1038.0	49.4
0°-60°	1735.0	82.6
0°-90°	2099.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2099.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	878	878	878	878	878	
5°	877	875	868	873	873	83
15°	835	832	818	817	814	235
25°	758	749	727	720	715	349
35°	656	640	614	596	588	410
45°	535	518	487	461	452	413
55°	407	389	352	324	313	365
65°	276	255	222	194	185	274
75°	147	129	99	83	78	155
85°	37	24	21	20	20	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	878.5	878.5	878.5	878.5	878.5
2.5°	881.0	879.1	872.2	878.5	878.5
5°	876.6	874.7	867.8	873.4	872.8
7.5°	870.3	868.4	860.2	865.9	864.0
10°	861.5	859.0	849.6	852.7	850.2
12.5°	849.6	847.0	835.7	837.0	835.7
15°	835.1	832.0	817.5	816.9	813.7
17.5°	818.8	814.4	798.7	796.8	791.8
20°	799.9	794.3	776.7	772.9	769.8
22.5°	778.6	772.9	752.2	746.5	744.6
25°	757.8	749.0	727.0	719.5	715.1
27.5°	733.3	723.3	700.6	690.6	683.0
30°	708.2	696.9	673.0	659.8	651.6
32.5°	682.4	669.2	643.5	627.1	620.2
35°	656.0	640.3	613.9	595.7	588.2
37.5°	625.9	610.2	583.8	562.4	555.5
40°	597.0	580.6	552.3	529.1	520.3
42.5°	566.8	549.8	519.0	494.5	487.0
45°	535.4	517.8	487.0	461.2	451.8
47.5°	504.0	486.4	454.3	428.6	416.6
50°	472.5	453.7	419.8	393.4	381.4
52.5°	441.1	420.4	387.1	358.8	348.1
55°	406.6	389.0	351.9	323.6	312.9
57.5°	375.8	356.3	321.1	292.2	280.3
60°	343.7	322.4	286.5	258.3	247.0
62.5°	309.8	288.4	253.9	225.6	215.5
65°	276.5	255.1	221.8	194.2	184.7
67.5°	243.2	223.1	189.8	164.0	153.3
70°	211.1	190.4	157.1	133.8	127.6
72.5°	177.2	160.9	127.6	106.8	101.8
75°	147.0	128.8	99.3	82.9	78.5
77.5°	116.2	98.7	73.5	62.2	58.4
80°	86.7	71.6	51.5	44.6	43.4
82.5°	59.7	45.2	33.9	32.7	32.0
85°	37.1	23.9	21.4	20.1	20.1
87.5°	15.7	10.1	10.1	9.4	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	17.79	19.37	18.15	19.68	20.00	16.28	17.86	16.64	18.17	18.49
	3H	19.55	20.97	19.93	21.30	21.66	17.56	18.98	17.94	19.31	19.67
	4H	20.21	21.54	20.61	21.89	22.27	17.95	19.28	18.34	19.63	20.01
	6H	20.68	21.91	21.09	22.28	22.67	18.18	19.42	18.59	19.78	20.17
	8H	20.82	22.00	21.25	22.39	22.79	18.26	19.43	18.68	19.82	20.22
	12H	20.92	22.05	21.35	22.43	22.86	18.31	19.44	18.74	19.82	20.25
4H	2H	18.19	19.52	18.59	19.87	20.25	16.96	18.30	17.36	18.65	19.02
	3H	20.15	21.26	20.56	21.66	22.06	18.43	19.54	18.84	19.94	20.34
	4H	20.93	21.94	21.36	22.35	22.79	18.89	19.90	19.33	20.31	20.75
	6H	21.53	22.40	21.98	22.84	23.30	19.21	20.09	19.67	20.53	20.98
	8H	21.71	22.53	22.17	22.97	23.44	19.32	20.13	19.78	20.58	21.04
	12H	21.85	22.58	22.33	23.05	23.52	19.40	20.13	19.88	20.61	21.08
8H	4H	21.05	21.87	21.51	22.31	22.78	19.20	20.02	19.66	20.46	20.93
	6H	21.73	22.40	22.22	22.89	23.37	19.60	20.27	20.09	20.76	21.24
	8H	21.96	22.57	22.48	23.08	23.57	19.75	20.36	20.26	20.86	21.35
	12H	22.15	22.69	22.66	23.18	23.74	19.89	20.42	20.40	20.91	21.48
12H	4H	21.04	21.78	21.53	22.25	22.72	19.24	19.97	19.72	20.45	20.92
	6H	21.72	22.33	22.23	22.83	23.32	19.65	20.25	20.16	20.76	21.25
	8H	22.00	22.53	22.50	23.02	23.59	19.85	20.38	20.35	20.87	21.44