

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: P242796

Luminaire Tested: S125DRP-S610D940-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242796
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-12)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125DRP-S610D940-X4F0-XX-UDD-F-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

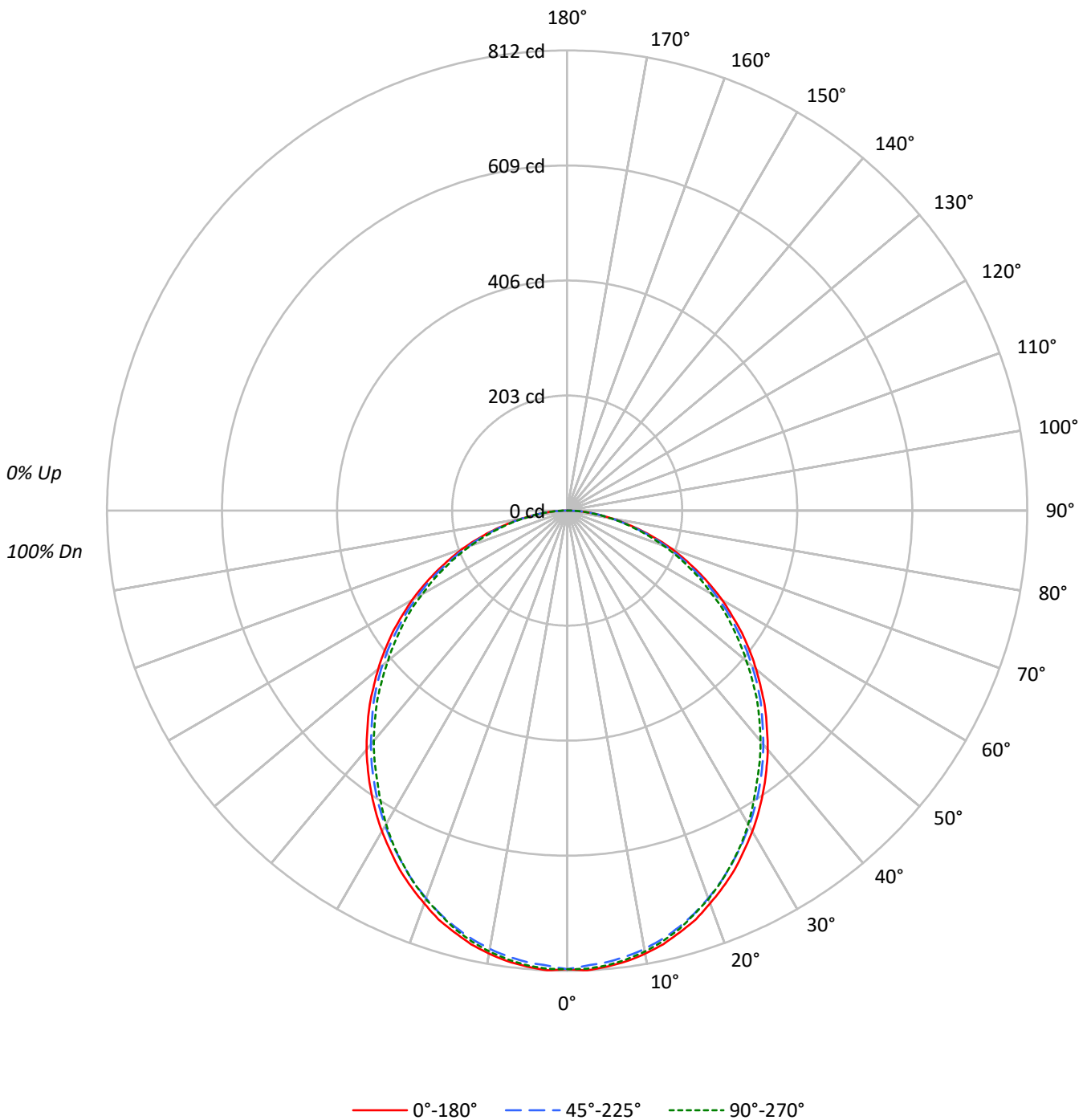
Lumens per Lamp: N/A
Luminaire Lumens: 2106.4 lumens
Efficiency: N/A
Efficacy: 112.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.18 / 1.3
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 18.8
Input Voltage (V): 120
Input Current (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	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	104	100	96	106	102	98	95	98	94	92	94	91	89	90	88	86	84					84			
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	72	70					70			
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	59					59			
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51					51			
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44					44			
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	46	41	39					39			
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34					34			
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33	31					31			
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30	28					28			
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25					25			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5752	5752	5752
5°	5765	5710	5747
10°	5730	5670	5702
15°	5667	5602	5625
20°	5579	5506	5516
25°	5483	5393	5388
30°	5365	5270	5244
35°	5239	5139	5066
40°	5108	4996	4925
45°	4968	4865	4768
50°	4814	4708	4567
55°	4665	4530	4404
60°	4488	4350	4196
65°	4275	4135	3994
70°	4071	3886	3753
75°	3710	3586	3463
80°	3303	3250	3172
85°	2870	2928	2764

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4968 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.4	3.6
10°-20°	215.7	10.2
20°-30°	318.5	15.1
30°-40°	371.6	17.6
40°-50°	373.2	17.7
50°-60°	327.6	15.6
60°-70°	244.0	11.6
70°-80°	139.4	6.6
80°-90°	40.2	1.9
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°	610.5	29.0
0°-40°	982.1	46.6
0°-60°	1682.9	79.9
0°-90°	2106.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2106.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	809	809	809	809	809	
5°	808	807	800	806	806	77
15°	770	768	761	764	764	217
25°	699	696	688	689	687	322
35°	604	601	592	589	584	378
45°	494	492	484	476	474	381
55°	376	375	366	360	355	336
65°	254	253	246	240	238	252
75°	135	134	131	129	126	144
85°	35	36	36	35	34	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	809.3	809.3	809.3	809.3	809.3
2.5°	811.9	809.9	803.5	809.9	809.3
5°	808.0	806.7	800.3	806.1	805.5
7.5°	802.3	801.0	793.9	799.7	799.1
10°	793.9	792.7	785.6	790.7	790.1
12.5°	783.7	781.1	774.7	778.6	778.6
15°	770.2	768.3	761.3	764.5	764.5
17.5°	756.2	753.0	745.9	749.8	746.6
20°	737.6	736.3	728.0	732.5	729.3
22.5°	719.0	716.5	708.8	711.3	709.4
25°	699.2	696.0	687.7	688.9	687.0
27.5°	676.1	674.2	665.9	666.5	664.6
30°	653.7	651.8	642.2	640.9	639.0
32.5°	629.4	626.2	617.9	615.3	611.5
35°	603.8	601.2	592.3	589.0	583.9
37.5°	577.5	574.3	566.0	561.5	558.3
40°	550.6	547.4	538.5	532.7	530.8
42.5°	521.8	519.3	510.3	505.2	502.0
45°	494.3	491.7	484.0	476.4	474.4
47.5°	464.2	464.8	455.2	447.5	443.1
50°	435.4	433.5	425.8	417.5	413.0
52.5°	405.9	404.7	396.3	389.3	384.2
55°	376.5	374.6	365.6	359.8	355.4
57.5°	345.1	344.5	336.8	329.1	327.2
60°	315.7	313.1	306.0	299.6	295.2
62.5°	284.9	283.0	277.2	270.2	267.0
65°	254.2	252.9	245.9	240.1	237.5
67.5°	224.1	221.5	216.4	211.3	210.0
70°	195.9	192.7	187.0	183.1	180.6
72.5°	165.2	163.3	160.1	155.6	153.0
75°	135.1	133.8	130.6	128.7	126.1
77.5°	106.9	106.3	104.4	103.1	101.2
80°	80.7	80.7	79.4	78.8	77.5
82.5°	57.6	56.3	56.3	55.1	55.1
85°	35.2	35.9	35.9	35.2	33.9
87.5°	17.3	17.3	16.6	16.6	15.4
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	17.43	19.05	17.79	19.36	19.68	17.10	18.72	17.47	19.03	19.35
	3H	19.20	20.66	19.57	20.99	21.35	18.83	20.29	19.21	20.62	20.98
	4H	19.85	21.23	20.25	21.58	21.96	19.48	20.86	19.88	21.20	21.58
	6H	20.33	21.61	20.74	21.97	22.36	19.96	21.24	20.38	21.61	22.00
	8H	20.49	21.71	20.91	22.10	22.49	20.13	21.35	20.55	21.73	22.13
	12H	20.59	21.76	21.02	22.14	22.57	20.24	21.40	20.67	21.79	22.21
4H	2H	18.01	19.38	18.41	19.73	20.11	17.75	19.12	18.15	19.47	19.85
	3H	20.00	21.16	20.41	21.55	21.95	19.70	20.85	20.11	21.25	21.65
	4H	20.79	21.83	21.22	22.25	22.68	20.47	21.52	20.90	21.93	22.37
	6H	21.40	22.31	21.85	22.75	23.21	21.09	22.00	21.54	22.44	22.90
	8H	21.60	22.46	22.06	22.90	23.36	21.30	22.15	21.76	22.59	23.06
	12H	21.75	22.52	22.23	23.00	23.47	21.45	22.22	21.93	22.70	23.17
8H	4H	21.07	21.93	21.54	22.37	22.84	20.80	21.65	21.26	22.09	22.56
	6H	21.80	22.51	22.30	23.00	23.48	21.54	22.25	22.03	22.74	23.21
	8H	22.08	22.72	22.59	23.23	23.71	21.82	22.46	22.33	22.96	23.45
	12H	22.31	22.88	22.82	23.37	23.93	22.05	22.62	22.56	23.11	23.67
12H	4H	21.10	21.87	21.58	22.35	22.82	20.83	21.60	21.31	22.08	22.55
	6H	21.86	22.50	22.37	23.00	23.49	21.60	22.24	22.11	22.74	23.23
	8H	22.19	22.76	22.70	23.25	23.81	21.94	22.51	22.45	23.00	23.56