

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: P243656

Luminaire Tested: S125DRP-H610D940-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243656
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-51)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125DRP-H610D940-X4F0-XX-UDD-F-W
Description: DEFINE 5 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

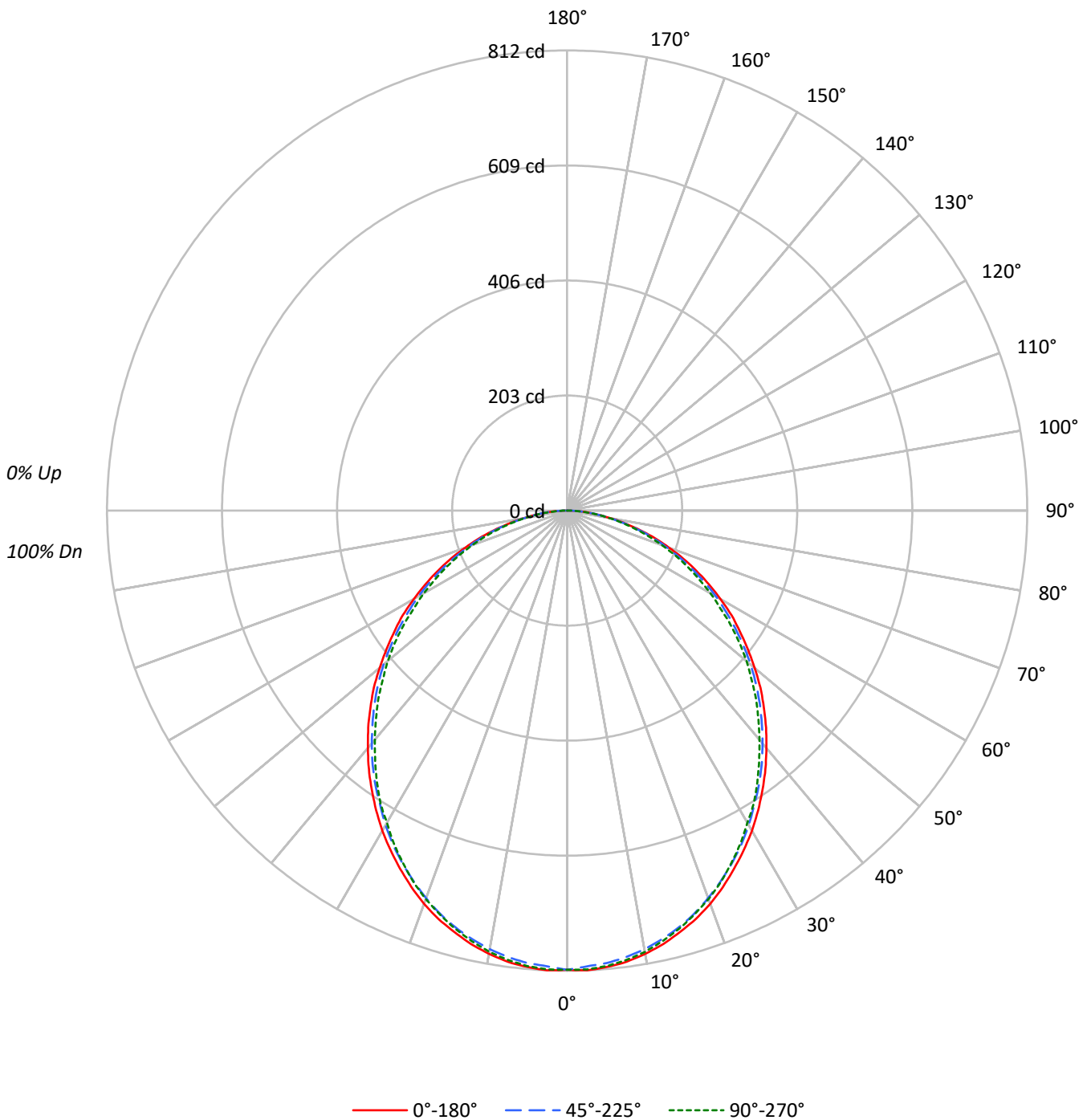
Lumens per Lamp: N/A
Luminaire Lumens: 2091.6 lumens
Efficiency: N/A
Efficacy: 121.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 17.2
Input Voltage (V): 120
Input Current (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																		
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	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	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84																												
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70																												
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60																												
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51																												
5	77	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	47	44																												
6	71	58	49	42	69	57	48	42	55	47	42	53	46	41	52	46	41	39																												
7	66	52	44	38	64	51	43	37	50	43	37	49	42	37	47	41	37	35																												
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31																												
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28																												
10	54	41	33	28	52	40	33	27	39	32	27	38	32	27	37	31	27	25																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5759	5759	5759
5°	5768	5718	5755
10°	5732	5672	5706
15°	5665	5603	5621
20°	5585	5504	5517
25°	5468	5389	5380
30°	5353	5260	5220
35°	5215	5122	5076
40°	5074	4975	4898
45°	4935	4828	4738
50°	4772	4674	4569
55°	4611	4486	4368
60°	4436	4310	4158
65°	4230	4080	3939
70°	3965	3817	3695
75°	3658	3542	3380
80°	3188	3164	3090
85°	2764	2764	2618

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4935 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.4	3.7
10°-20°	215.7	10.3
20°-30°	318.0	15.2
30°-40°	370.3	17.7
40°-50°	371.1	17.7
50°-60°	324.4	15.5
60°-70°	240.8	11.5
70°-80°	136.5	6.5
80°-90°	38.3	1.8
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°	610.2	29.2
0°-40°	980.5	46.9
0°-60°	1676.0	80.1
0°-90°	2091.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2091.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	810	810	810	810	810	
5°	808	807	801	807	807	77
15°	770	769	762	766	764	217
25°	697	695	687	689	686	321
35°	601	598	590	587	585	376
45°	491	490	480	473	471	379
55°	372	372	362	354	352	333
65°	252	250	243	237	234	249
75°	133	131	129	127	123	141
85°	34	34	34	33	32	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	810.3	810.3	810.3	810.3	810.3
2.5°	812.1	810.9	804.9	810.9	810.3
5°	808.5	807.3	801.4	807.3	806.7
7.5°	803.2	801.4	794.8	800.8	799.6
10°	794.2	793.0	785.9	790.7	790.7
12.5°	783.5	781.8	774.6	778.8	778.2
15°	769.9	768.7	761.5	765.7	763.9
17.5°	755.6	752.6	746.1	749.6	747.3
20°	738.4	736.0	727.7	730.6	729.4
22.5°	718.7	715.8	708.0	709.8	709.2
25°	697.3	695.0	687.2	689.0	686.0
27.5°	675.3	672.4	665.2	665.2	662.3
30°	652.2	649.2	640.9	640.9	636.1
32.5°	627.2	624.8	614.7	614.1	612.9
35°	601.0	597.5	590.3	586.8	585.0
37.5°	574.9	571.9	564.2	559.4	556.4
40°	546.9	545.1	536.2	532.1	527.9
42.5°	519.6	517.8	508.3	501.2	499.4
45°	491.0	489.9	480.3	473.2	471.4
47.5°	462.5	461.3	451.8	444.1	441.1
50°	431.6	431.6	422.7	415.0	413.2
52.5°	401.9	401.3	392.4	384.6	382.9
55°	372.1	371.6	362.0	354.3	352.5
57.5°	344.2	340.6	332.3	326.4	320.4
60°	312.1	310.3	303.2	295.5	292.5
62.5°	282.4	280.0	272.9	266.3	262.2
65°	251.5	249.7	242.6	237.2	234.2
67.5°	222.3	220.0	212.8	208.7	206.3
70°	190.8	189.0	183.7	178.3	177.8
72.5°	162.9	160.5	157.5	152.8	150.4
75°	133.2	130.8	129.0	126.6	123.1
77.5°	104.6	103.4	102.3	100.5	98.7
80°	77.9	77.9	77.3	76.1	75.5
82.5°	55.3	55.9	54.1	52.9	52.9
85°	33.9	33.9	33.9	32.7	32.1
87.5°	16.6	14.9	14.9	13.7	13.7
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	17.39	19.00	17.75	19.32	19.63	17.06	18.67	17.42	18.98	19.30
	3H	19.15	20.61	19.52	20.93	21.29	18.77	20.23	19.14	20.55	20.91
	4H	19.80	21.17	20.20	21.52	21.90	19.41	20.78	19.80	21.13	21.50
	6H	20.26	21.53	20.67	21.90	22.29	19.88	21.15	20.29	21.52	21.91
	8H	20.41	21.62	20.83	22.01	22.41	20.03	21.25	20.46	21.64	22.04
	12H	20.51	21.67	20.94	22.05	22.48	20.14	21.30	20.57	21.68	22.11
4H	2H	17.96	19.34	18.36	19.68	20.06	17.70	19.07	18.10	19.42	19.79
	3H	19.94	21.09	20.35	21.49	21.89	19.63	20.78	20.04	21.17	21.57
	4H	20.72	21.76	21.15	22.17	22.61	20.39	21.43	20.83	21.85	22.28
	6H	21.31	22.22	21.76	22.66	23.12	21.00	21.90	21.45	22.35	22.80
	8H	21.51	22.36	21.97	22.80	23.27	21.20	22.05	21.66	22.49	22.95
	12H	21.65	22.42	22.13	22.89	23.36	21.34	22.10	21.82	22.58	23.05
8H	4H	21.00	21.85	21.46	22.30	22.76	20.72	21.57	21.18	22.01	22.47
	6H	21.71	22.42	22.21	22.91	23.38	21.44	22.14	21.93	22.63	23.11
	8H	21.98	22.62	22.49	23.13	23.61	21.71	22.34	22.22	22.85	23.33
	12H	22.21	22.77	22.71	23.26	23.82	21.92	22.49	22.43	22.98	23.54
12H	4H	21.03	21.80	21.51	22.27	22.74	20.75	21.51	21.23	21.99	22.46
	6H	21.76	22.40	22.27	22.90	23.39	21.49	22.13	22.00	22.64	23.12
	8H	22.09	22.65	22.60	23.14	23.70	21.82	22.39	22.33	22.88	23.44