

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: P243759

Luminaire Tested: S125RDRP-H610D940-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243759
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-H610D940-X4F0-XX-UDD-F-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

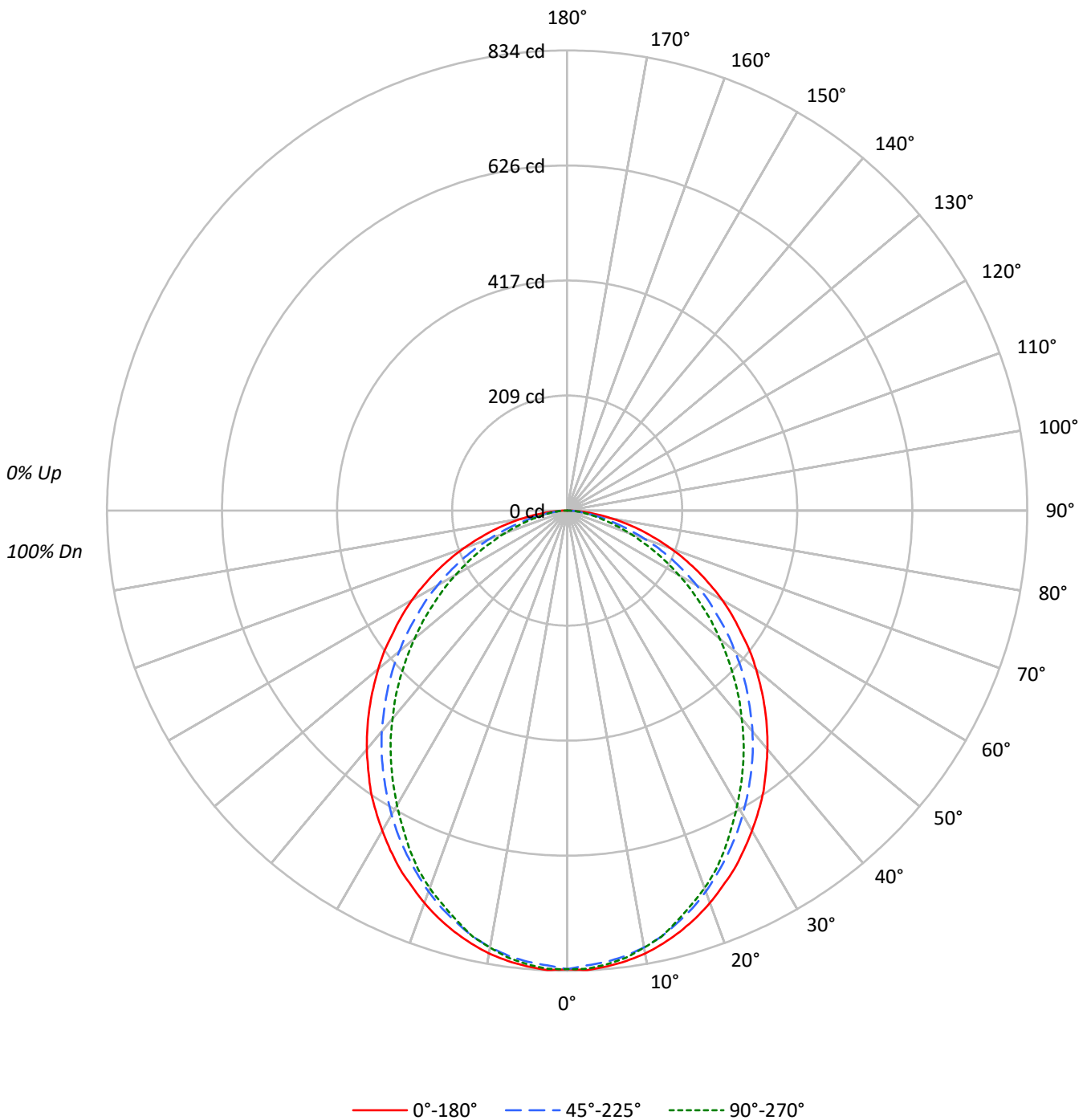
Lumens per Lamp: N/A
Luminaire Lumens: 1986.5 lumens
Efficiency: N/A
Efficacy: 115.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.12 / 1.26
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')
CIE Type: Direct

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

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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	97	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	63	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	43	55	48	43	53	47	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	38	49	43	38	36
8	62	49	41	35	61	48	40	35	47	40	35	46	39	35	45	39	34	32
9	58	45	37	32	57	45	37	32	43	36	31	42	36	31	41	35	31	29
10	55	42	34	29	53	41	34	29	40	33	29	39	33	29	38	33	28	27

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5907	5907	5907
5°	5917	5857	5891
10°	5882	5800	5805
15°	5814	5691	5665
20°	5724	5558	5508
25°	5623	5394	5305
30°	5499	5225	5060
35°	5385	5039	4828
40°	5240	4849	4567
45°	5091	4631	4296
50°	4944	4391	3990
55°	4766	4125	3669
60°	4623	3854	3321
65°	4399	3530	2940
70°	4150	3088	2508
75°	3820	2579	2040
80°	3356	1993	1678
85°	2862	1647	1549

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5091 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.3	3.9
10°-20°	219.3	11.0
20°-30°	319.1	16.1
30°-40°	365.4	18.4
40°-50°	357.5	18.0
50°-60°	301.9	15.2
60°-70°	211.4	10.6
70°-80°	107.3	5.4
80°-90°	26.4	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°	616.6	31.0
0°-40°	982.0	49.4
0°-60°	1641.4	82.6
0°-90°	1986.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1986.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	831	831	831	831	831	
5°	829	828	821	826	826	79
15°	790	787	773	773	770	223
25°	717	709	688	681	676	330
35°	621	606	581	564	556	388
45°	506	490	461	436	427	391
55°	385	368	333	306	296	345
65°	262	241	210	184	175	259
75°	139	122	94	78	74	147
85°	35	23	20	19	19	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	831.1	831.1	831.1	831.1	831.1
2.5°	833.5	831.7	825.1	831.1	831.1
5°	829.3	827.5	821.0	826.3	825.7
7.5°	823.4	821.6	813.9	819.2	817.4
10°	815.0	812.7	803.7	806.7	804.3
12.5°	803.7	801.4	790.7	791.9	790.7
15°	790.1	787.1	773.4	772.8	769.9
17.5°	774.6	770.5	755.6	753.8	749.1
20°	756.8	751.4	734.8	731.2	728.2
22.5°	736.6	731.2	711.6	706.3	704.5
25°	717.0	708.6	687.8	680.7	676.5
27.5°	693.8	684.3	662.9	653.3	646.2
30°	670.0	659.3	636.7	624.2	616.5
32.5°	645.6	633.1	608.8	593.3	586.8
35°	620.6	605.8	580.8	563.6	556.4
37.5°	592.1	577.2	552.3	532.1	525.5
40°	564.8	549.3	522.6	500.6	492.2
42.5°	536.2	520.2	491.0	467.9	460.7
45°	506.5	489.9	460.7	436.4	427.4
47.5°	476.8	460.1	429.8	405.4	394.1
50°	447.1	429.2	397.1	372.1	360.9
52.5°	417.3	397.7	366.2	339.5	329.3
55°	384.6	368.0	332.9	306.2	296.1
57.5°	355.5	337.1	303.8	276.4	265.1
60°	325.2	305.0	271.1	244.3	233.6
62.5°	293.1	272.9	240.2	213.4	203.9
65°	261.6	241.4	209.9	183.7	174.8
67.5°	230.1	211.0	179.5	155.2	145.1
70°	199.7	180.1	148.6	126.6	120.7
72.5°	167.6	152.2	120.7	101.1	96.3
75°	139.1	121.9	93.9	78.5	74.3
77.5°	110.0	93.3	69.6	58.9	55.3
80°	82.0	67.8	48.7	42.2	41.0
82.5°	56.5	42.8	32.1	30.9	30.3
85°	35.1	22.6	20.2	19.0	19.0
87.5°	14.9	9.5	9.5	8.9	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	17.60	19.18	17.96	19.49	19.80	16.09	17.66	16.45	17.98	18.29
	3H	19.36	20.78	19.74	21.11	21.47	17.37	18.79	17.74	19.11	19.47
	4H	20.01	21.35	20.41	21.70	22.07	17.75	19.09	18.15	19.44	19.81
	6H	20.49	21.72	20.90	22.09	22.48	17.99	19.22	18.40	19.59	19.98
	8H	20.63	21.81	21.06	22.20	22.60	18.06	19.24	18.49	19.63	20.03
	12H	20.73	21.85	21.16	22.24	22.66	18.12	19.25	18.55	19.63	20.06
4H	2H	18.00	19.33	18.40	19.68	20.06	16.77	18.11	17.17	18.45	18.83
	3H	19.96	21.07	20.37	21.47	21.87	18.23	19.35	18.64	19.74	20.14
	4H	20.74	21.74	21.17	22.16	22.59	18.70	19.70	19.13	20.12	20.56
	6H	21.33	22.21	21.79	22.65	23.11	19.02	19.89	19.48	20.34	20.79
	8H	21.52	22.34	21.98	22.78	23.24	19.13	19.94	19.59	20.39	20.85
	12H	21.65	22.39	22.13	22.86	23.33	19.21	19.94	19.69	20.42	20.89
8H	4H	20.86	21.68	21.32	22.12	22.59	19.01	19.83	19.47	20.27	20.74
	6H	21.53	22.21	22.03	22.70	23.18	19.40	20.08	19.90	20.57	21.05
	8H	21.77	22.38	22.28	22.89	23.37	19.56	20.16	20.07	20.67	21.16
	12H	21.96	22.50	22.47	22.99	23.55	19.69	20.23	20.20	20.72	21.28
12H	4H	20.85	21.58	21.33	22.06	22.53	19.05	19.78	19.53	20.25	20.72
	6H	21.53	22.13	22.04	22.64	23.13	19.45	20.06	19.96	20.57	21.06
	8H	21.80	22.34	22.31	22.83	23.39	19.65	20.19	20.16	20.68	21.24