

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: P243282

Luminaire Tested: S123DRP-H340D927-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243282
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-49)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DRP-H340D927-X4F0-XX-UDD-F-W
Description: DEFINE 3 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

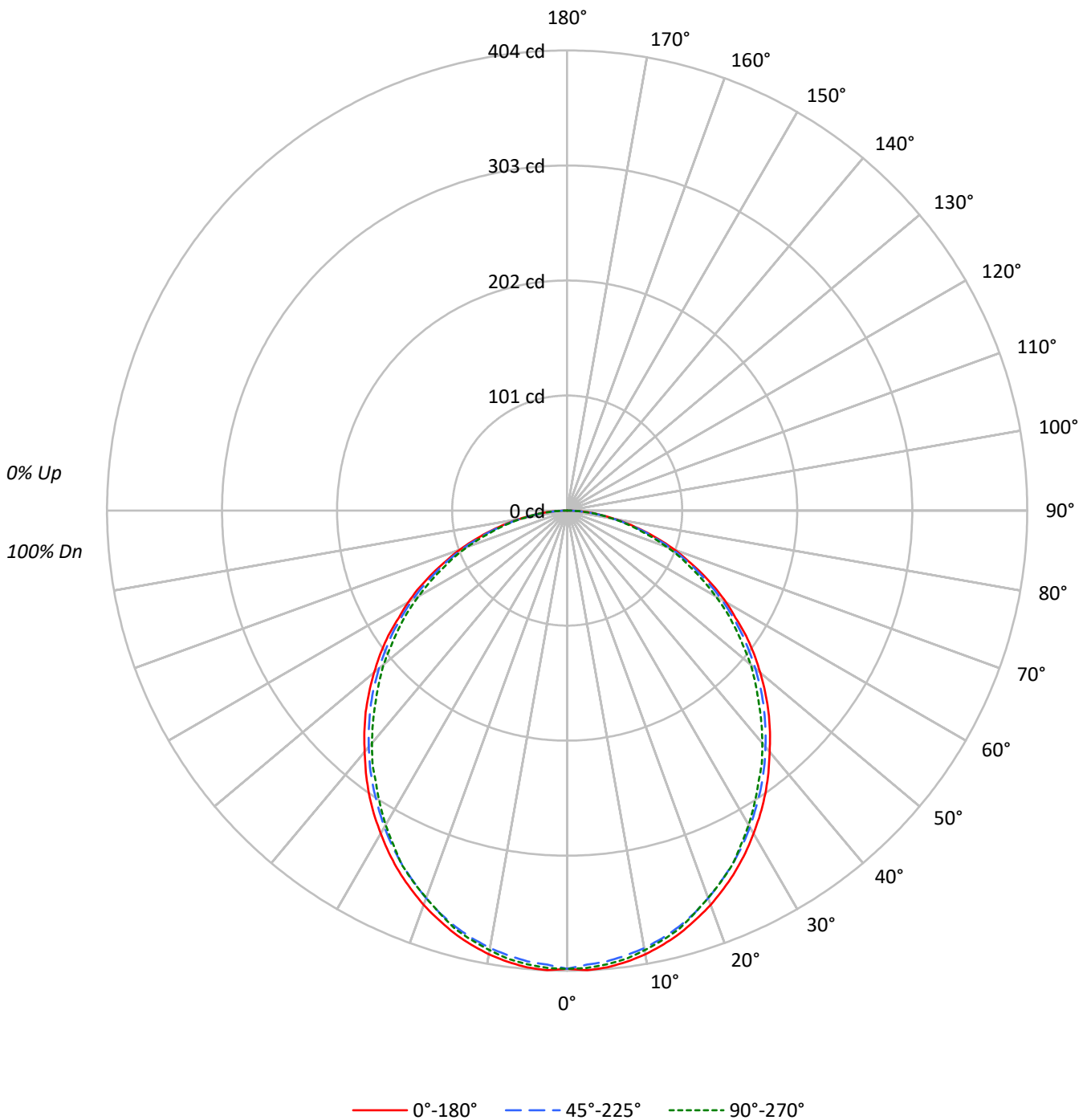
Lumens per Lamp: N/A
Luminaire Lumens: 1064.2 lumens
Efficiency: N/A
Efficacy: 95.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.23' x L: 3.88' x H: 0')
CIE Type: Direct

Input Watts (W): 11.2
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	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	94	97	94	91	94	91	89	90	88	86	84				84
2	99	91	84	78	96	89	83	77	85	80	76	82	78	74	79	75	72	70				70
3	90	80	72	65	88	78	71	65	75	69	64	73	67	62	70	65	61	59				59
4	83	71	62	55	80	70	61	55	67	60	54	65	59	54	63	57	53	51				51
5	76	63	54	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44				44
6	70	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	39				39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34				34
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	30				30
9	57	44	35	30	56	43	35	30	42	35	30	41	34	29	40	34	29	27				27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25				25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4876	4876	4876
5°	4899	4834	4866
10°	4869	4800	4825
15°	4819	4748	4770
20°	4752	4671	4667
25°	4674	4586	4590
30°	4581	4493	4461
35°	4489	4392	4328
40°	4377	4286	4218
45°	4287	4184	4076
50°	4171	4066	3966
55°	4051	3945	3812
60°	3908	3804	3651
65°	3737	3625	3470
70°	3551	3431	3292
75°	3292	3199	3030
80°	2960	2897	2799
85°	2768	2629	2531

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4287 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.0	3.6
10°-20°	107.3	10.1
20°-30°	158.9	14.9
30°-40°	186.3	17.5
40°-50°	188.4	17.7
50°-60°	166.6	15.7
60°-70°	125.1	11.8
70°-80°	72.1	6.8
80°-90°	21.4	2.0
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°	304.2	28.6
0°-40°	490.5	46.1
0°-60°	845.5	79.5
0°-90°	1064.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1064.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	402	402	402	402	402	
5°	403	401	397	401	400	38
15°	384	382	378	381	380	108
25°	350	347	343	345	343	161
35°	303	301	297	296	292	190
45°	250	248	244	241	238	193
55°	192	190	187	183	180	171
65°	130	129	126	123	121	129
75°	70	70	68	66	65	74
85°	20	20	19	19	18	22
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	402.3	402.3	402.3	402.3	402.3
2.5°	403.9	402.6	399.0	402.6	401.9
5°	402.6	400.9	397.3	400.6	399.9
7.5°	399.6	398.0	394.0	397.6	397.0
10°	395.6	394.0	390.0	393.0	392.0
12.5°	390.3	388.7	384.7	387.0	386.4
15°	384.0	382.0	378.4	381.0	380.1
17.5°	376.4	374.7	370.8	374.1	371.1
20°	368.4	366.8	362.1	365.1	361.8
22.5°	359.2	357.2	352.5	354.5	352.9
25°	349.5	346.9	342.9	344.6	343.2
27.5°	338.9	336.3	332.3	333.0	330.6
30°	327.3	325.0	321.0	321.7	318.7
32.5°	315.7	313.7	308.7	308.7	305.8
35°	303.4	300.8	296.8	295.8	292.5
37.5°	290.2	287.9	284.2	282.6	280.6
40°	276.6	275.3	270.9	269.0	266.6
42.5°	263.6	261.3	257.7	255.0	252.4
45°	250.1	248.1	244.1	240.8	237.8
47.5°	235.8	234.1	230.2	226.5	224.2
50°	221.2	219.9	215.6	211.6	210.3
52.5°	206.9	205.3	201.0	197.3	194.7
55°	191.7	190.4	186.7	183.1	180.4
57.5°	175.4	175.4	171.5	168.1	166.1
60°	161.2	159.5	156.9	153.2	150.6
62.5°	146.2	145.3	141.6	138.0	136.0
65°	130.3	129.3	126.4	123.0	121.0
67.5°	114.7	114.4	111.8	109.1	107.8
70°	100.2	99.5	96.8	94.2	92.9
72.5°	85.2	84.6	82.2	79.9	78.3
75°	70.3	69.6	68.3	66.3	64.7
77.5°	55.7	55.7	54.1	53.4	52.7
80°	42.4	42.1	41.5	40.8	40.1
82.5°	30.5	30.2	29.5	29.2	29.2
85°	19.9	19.6	18.9	18.6	18.2
87.5°	10.3	9.6	9.3	8.6	8.3
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	16.95	18.58	17.32	18.89	19.21	16.64	18.27	17.01	18.58	18.90
	3H	18.75	20.22	19.13	20.55	20.91	18.40	19.87	18.78	20.20	20.56
	4H	19.43	20.81	19.83	21.16	21.54	19.05	20.43	19.45	20.78	21.16
	6H	19.93	21.21	20.34	21.57	21.96	19.55	20.83	19.96	21.20	21.59
	8H	20.09	21.32	20.52	21.71	22.11	19.72	20.95	20.14	21.34	21.73
	12H	20.22	21.39	20.65	21.77	22.20	19.84	21.02	20.27	21.40	21.83
4H	2H	17.55	18.93	17.94	19.28	19.65	17.30	18.68	17.70	19.03	19.41
	3H	19.57	20.73	19.98	21.13	21.53	19.27	20.44	19.68	20.83	21.23
	4H	20.38	21.43	20.81	21.84	22.28	20.05	21.10	20.49	21.52	21.95
	6H	21.01	21.93	21.46	22.37	22.82	20.68	21.60	21.14	22.04	22.50
	8H	21.23	22.09	21.69	22.53	23.00	20.90	21.76	21.36	22.21	22.67
	12H	21.40	22.18	21.88	22.65	23.12	21.07	21.85	21.55	22.32	22.79
8H	4H	20.67	21.53	21.13	21.98	22.44	20.39	21.25	20.85	21.69	22.16
	6H	21.43	22.15	21.92	22.63	23.11	21.14	21.86	21.64	22.35	22.82
	8H	21.73	22.37	22.23	22.87	23.36	21.44	22.08	21.95	22.59	23.08
	12H	21.98	22.55	22.49	23.04	23.60	21.69	22.26	22.20	22.75	23.31
12H	4H	20.71	21.48	21.19	21.96	22.42	20.43	21.20	20.91	21.68	22.14
	6H	21.48	22.13	21.99	22.63	23.12	21.21	21.85	21.72	22.36	22.84
	8H	21.84	22.41	22.35	22.90	23.46	21.57	22.14	22.07	22.63	23.19