

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P243007

Luminaire Tested: **S121DR-H305D927-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243007
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-52)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121DR-H305D927-X4F0-XX-UDD-D-W
Description: DEFINE 1 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

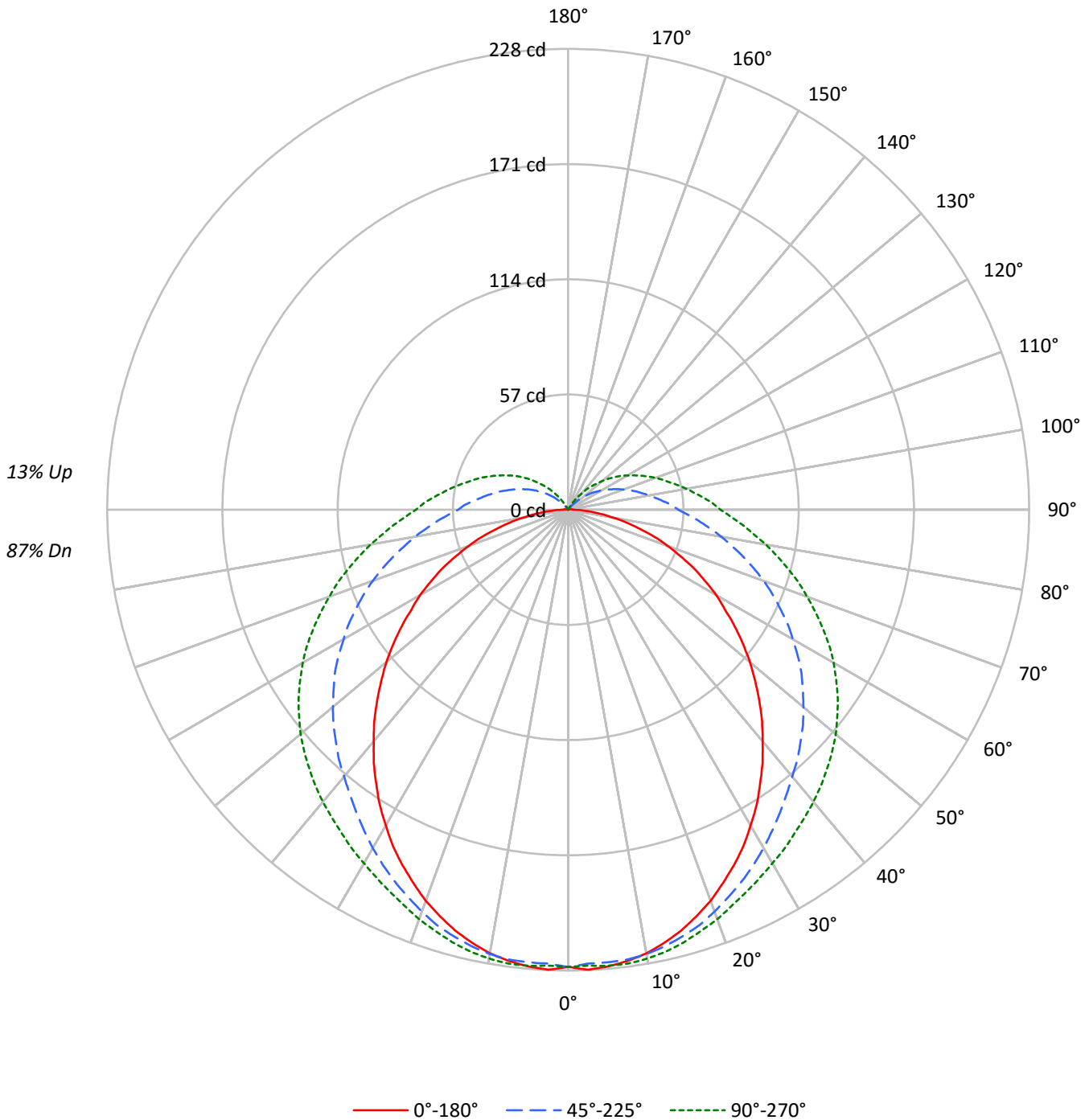
Lumens per Lamp: N/A
Luminaire Lumens: 918.0 lumens
Efficiency: N/A
Efficacy: 82.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.34 / 1.43
Luminous Opening: Rectangular w/ Sides (W: 0.09' x L: 3.88' x H: 0.08')
CIE Type: Semi-Direct

Input Watts (W): 11.2
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: 25 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	116	116	116	116	112	112	112	112	104	104	104	97	97	97	90	90	90	87
1	103	97	92	87	99	94	89	84	87	83	79	81	78	75	75	72	70	67
2	93	83	75	69	89	80	73	67	74	69	63	69	64	60	64	60	57	54
3	84	72	63	56	80	70	61	55	65	58	52	60	54	50	56	51	47	44
4	76	64	54	47	73	61	53	46	57	50	44	53	47	42	49	44	40	37
5	70	56	47	40	67	54	46	39	51	43	37	47	41	36	44	39	34	32
6	65	51	41	34	62	49	40	34	46	38	32	43	36	31	40	34	30	27
7	60	46	37	30	57	44	36	30	41	34	29	39	32	27	36	31	26	24
8	55	42	33	27	53	40	32	26	38	31	25	36	29	24	33	28	23	21
9	52	38	30	24	50	37	29	24	35	28	23	33	26	22	31	25	21	19
10	48	35	27	22	47	34	26	21	32	25	21	30	24	20	29	23	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6702	6702	6702
5°	6733	6330	6251
10°	6681	6031	5865
15°	6576	5716	5488
20°	6442	5406	5136
25°	6279	5104	4821
30°	6096	4822	4567
35°	5898	4555	4354
40°	5684	4330	4181
45°	5480	4143	4018
50°	5276	3962	3868
55°	5037	3792	3706
60°	4833	3595	3538
65°	4598	3408	3353
70°	4286	3217	3164
75°	3900	3011	2981
80°	3437	2821	2802
85°	2974	2644	2638



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	21.5	2.3
10°-20°	61.8	6.7
20°-30°	93.5	10.2
30°-40°	114.3	12.4
40°-50°	124.1	13.5
50°-60°	122.4	13.3
60°-70°	109.7	11.9
70°-80°	88.2	9.6
80°-90°	63.8	6.9
90°-100°	45.7	5.0
100°-110°	32.6	3.6
110°-120°	21.6	2.4
120°-130°	12.3	1.3
130°-140°	5.5	0.6
140°-150°	1.2	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	176.8	19.3
0°-40°	291.1	31.7
0°-60°	537.6	58.6
0°-90°	799.2	87.1
90°-120°	99.8	10.9
90°-150°	118.8	12.9
90°-180°	119.0	13.0
0°-180°	918.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	226	226	226	226	226	
5°	227	226	225	227	226	22
15°	216	218	218	222	222	61
25°	194	199	203	208	209	89
35°	166	174	183	192	195	104
45°	134	146	162	176	181	103
55°	100	117	141	157	163	90
65°	69	90	116	134	139	68
75°	37	62	90	107	112	39
85°	11	37	65	82	87	11
90°	3	28	54	71	75	2
95°	2	22	47	63	67	1
105°	1	13	35	48	52	1
115°	1	6	24	36	40	1
125°	0	1	15	25	28	0
135°	0	0	6	14	17	0
145°	0	0	0	4	6	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	226.2	226.2	226.2	226.2	226.2
2.5°	227.8	226.5	224.8	226.5	225.8
5°	226.8	226.2	224.8	227.2	226.5
7.5°	225.2	225.2	224.5	226.8	226.5
10°	222.9	223.5	223.2	225.8	225.5
12.5°	219.5	220.9	221.2	224.2	223.9
15°	215.6	217.9	218.5	221.5	221.5
17.5°	210.9	213.9	215.6	218.5	218.5
20°	205.9	209.3	211.6	215.2	215.6
22.5°	200.0	204.6	207.3	211.6	211.9
25°	194.0	199.0	203.0	207.6	208.6
27.5°	187.7	193.3	198.3	203.6	205.3
30°	180.4	186.7	193.3	199.6	202.0
32.5°	173.4	180.7	188.0	196.0	199.0
35°	165.5	174.1	182.7	192.3	195.3
37.5°	157.9	167.1	177.4	188.4	192.0
40°	149.6	160.2	172.4	184.7	188.7
42.5°	141.9	152.9	167.8	180.4	185.1
45°	133.6	146.2	162.5	176.4	181.1
47.5°	125.4	139.0	157.5	171.8	177.1
50°	117.4	131.7	151.9	167.5	172.8
52.5°	108.8	125.0	146.2	162.2	167.8
55°	100.5	117.4	140.9	157.2	162.8
57.5°	91.9	111.1	134.6	151.9	157.2
60°	84.6	103.8	128.3	145.9	151.6
62.5°	76.3	96.8	122.4	139.6	145.6
65°	68.6	89.9	115.7	133.6	139.0
67.5°	60.0	82.9	109.4	127.0	132.3
70°	52.4	75.9	102.8	120.4	125.7
72.5°	44.8	69.3	96.2	114.1	119.4
75°	36.8	62.0	89.5	107.1	112.4
77.5°	29.8	55.4	82.9	100.5	105.8
80°	22.6	48.7	76.9	94.2	99.2
82.5°	16.6	42.8	70.6	87.9	92.5
85°	10.9	37.1	65.0	81.6	86.6
87.5°	6.3	32.2	59.4	75.9	80.6
90°	2.7	27.9	54.4	70.6	75.3
92.5°	2.0	25.2	51.4	67.0	71.6
95°	2.0	22.2	47.4	62.7	67.3
97.5°	1.7	19.6	43.8	58.7	63.0
100°	1.3	17.2	40.8	55.1	59.4
102.5°	1.3	15.3	37.5	51.4	55.7
105°	1.0	13.3	34.8	48.1	52.1
107.5°	1.0	11.3	31.8	45.1	49.1
110°	0.7	9.6	29.2	42.1	46.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	0.7	8.0	26.5	39.1	42.8
115°	0.7	6.3	23.9	36.1	39.8
117.5°	0.3	4.6	21.6	33.2	36.8
120°	0.3	3.3	19.2	30.2	33.8
122.5°	0.3	1.7	16.6	27.5	31.2
125°	0.3	0.7	14.6	24.9	28.2
127.5°	0.0	0.0	12.3	21.9	25.2
130°	0.0	0.0	9.9	19.2	22.2
132.5°	0.0	0.0	8.0	16.6	19.2
135°	0.0	0.0	5.6	13.9	16.6
137.5°	0.0	0.0	3.6	11.3	13.9
140°	0.0	0.0	1.7	8.6	10.9
142.5°	0.0	0.0	0.3	6.3	8.3
145°	0.0	0.0	0.0	3.6	6.0
147.5°	0.0	0.0	0.0	1.3	3.3
150°	0.0	0.0	0.0	0.0	1.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)