

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: P242210

Luminaire Tested: **S121RDR-S305D940-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242210
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-23)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121RDR-S305D940-X4F0-XX-UDD-F-W
Description: DEFINE 1 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 870.7 lumens
Efficiency: N/A
Efficacy: 75.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 0.92 / 1.09
Luminous Opening: Rectangular (W 0.09' x L: 3.88' x H: 0')
CIE Type: Direct

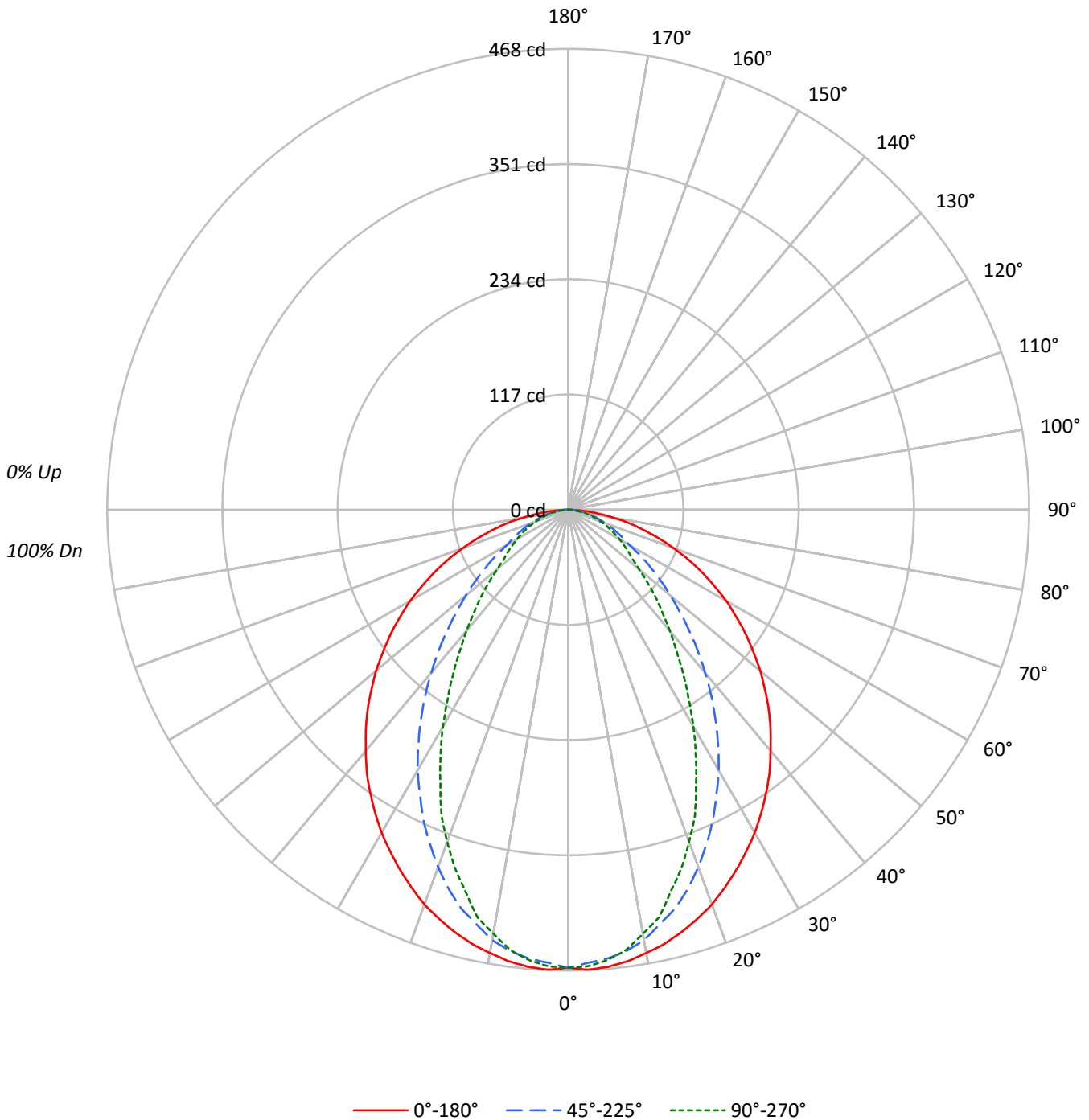
Input Watts (W): 11.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65
4	86	76	68	62	84	74	67	61	72	65	60	70	64	60	68	63	59	57
5	80	68	60	54	78	67	60	54	65	59	53	63	57	53	62	56	52	50
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33
10	58	45	38	33	56	45	37	33	44	37	33	43	37	32	42	36	32	31

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13787	13787	13787
5°	13860	13607	13652
10°	13753	13353	13154
15°	13626	12862	12325
20°	13454	12177	11320
25°	13198	11367	10043
30°	12960	10456	8697
35°	12674	9437	7364
40°	12362	8358	6204
45°	12072	7291	5238
50°	11736	6246	4324
55°	11365	5269	3864
60°	10981	4267	3573
65°	10453	3849	3302
70°	9850	3474	3032
75°	9044	3160	2805
80°	7900	2798	2525
85°	6493	2380	2108



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.6	5.0
10°-20°	118.5	13.6
20°-30°	161.7	18.6
30°-40°	168.1	19.3
40°-50°	146.8	16.9
50°-60°	111.0	12.7
60°-70°	73.3	8.4
70°-80°	37.8	4.3
80°-90°	10.0	1.2
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°	323.7	37.2
0°-40°	491.8	56.5
0°-60°	749.6	86.1
0°-90°	870.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	870.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	465	465	465	465	465	
5°	466	463	458	461	459	44
15°	444	438	419	408	402	125
25°	404	388	348	319	307	186
35°	350	319	261	218	204	219
45°	288	245	174	135	125	222
55°	220	167	102	78	75	197
65°	149	93	55	48	47	148
75°	79	37	28	25	24	84
85°	19	8	7	7	6	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	465.3	465.3	465.3	465.3	465.3
2.5°	467.6	465.3	460.6	464.9	464.1
5°	466.0	463.3	457.5	461.0	459.0
7.5°	462.5	459.4	452.0	453.2	450.9
10°	457.1	453.6	443.8	441.9	437.2
12.5°	451.6	446.2	431.0	427.1	424.4
15°	444.2	437.6	419.3	408.4	401.8
17.5°	435.7	426.7	403.7	389.0	381.9
20°	426.7	415.0	386.2	366.0	359.0
22.5°	415.4	401.8	367.1	343.0	336.0
25°	403.7	387.8	347.7	318.9	307.2
27.5°	391.3	371.8	325.9	293.6	280.7
30°	378.8	355.1	305.6	266.7	254.2
32.5°	364.8	338.3	283.1	242.2	227.4
35°	350.4	319.3	260.9	218.0	203.6
37.5°	336.0	301.7	238.7	195.4	180.3
40°	319.6	283.4	216.1	171.7	160.4
42.5°	304.1	264.4	194.7	153.4	141.3
45°	288.1	244.9	174.0	135.1	125.0
47.5°	271.0	225.8	153.8	119.1	109.0
50°	254.6	205.6	135.5	103.6	93.8
52.5°	236.7	186.5	118.4	87.6	82.2
55°	220.0	167.0	102.0	77.5	74.8
57.5°	202.1	148.3	86.8	70.1	67.0
60°	185.3	129.7	72.0	62.3	60.3
62.5°	166.6	111.7	62.7	55.3	53.3
65°	149.1	93.1	54.9	48.3	47.1
67.5°	131.6	77.1	47.5	42.0	40.9
70°	113.7	61.1	40.1	36.2	35.0
72.5°	96.2	46.7	33.5	30.4	29.6
75°	79.0	36.6	27.6	25.3	24.5
77.5°	63.9	28.0	21.8	19.9	19.5
80°	46.3	20.6	16.4	15.2	14.8
82.5°	31.5	14.0	11.7	10.9	10.1
85°	19.1	7.8	7.0	6.6	6.2
87.5°	7.8	3.5	3.1	2.7	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)