

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: P243046

Luminaire Tested: **S121RDR-H305D830-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243046
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-62)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121RDR-H305D830-X4F0-XX-UDD-F-W
Description: DEFINE 1 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 865.9 lumens
Efficiency: N/A
Efficacy: 77.3 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

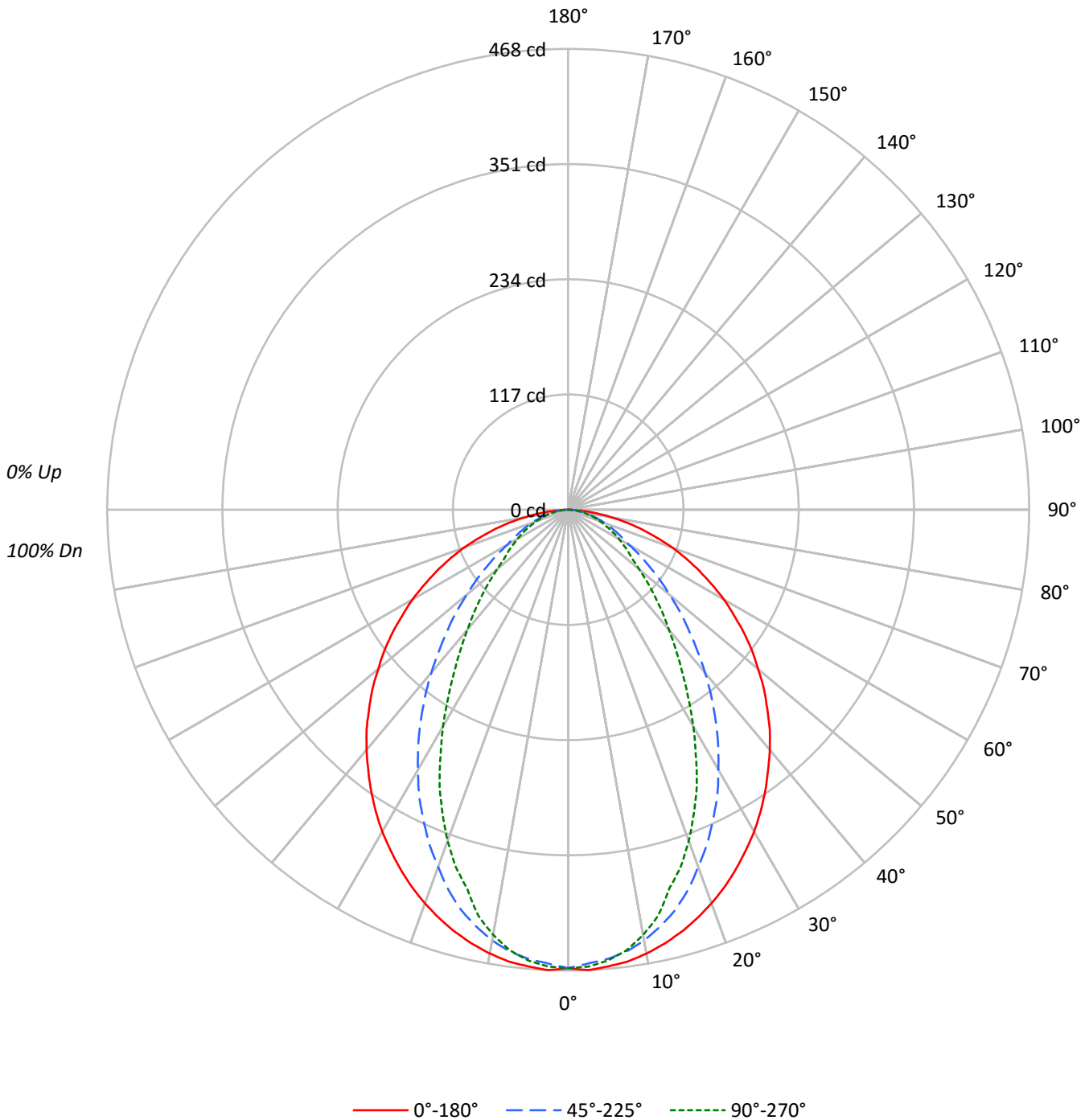
Input Watts (W): 11.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89				87	
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77				75	
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67				65	
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59				57	
5	80	69	60	54	78	67	60	54	65	59	54	64	58	53	62	57	52				50	
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47				45	
7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42				41	
8	65	53	45	39	64	52	44	39	51	44	39	50	43	39	48	43	39				37	
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35				34	
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32				31	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13796	13796	13796
5°	13848	13625	13673
10°	13771	13368	13190
15°	13617	12902	12199
20°	13413	12168	11285
25°	13172	11364	10102
30°	12919	10435	8694
35°	12617	9433	7307
40°	12315	8362	6150
45°	11972	7258	5209
50°	11602	6186	4328
55°	11251	5217	3854
60°	10827	4231	3532
65°	10292	3793	3239
70°	9746	3422	2971
75°	8895	3068	2713
80°	7610	2696	2423
85°	5915	2278	2006



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.6	5.0
10°-20°	118.5	13.7
20°-30°	161.7	18.7
30°-40°	167.6	19.4
40°-50°	146.2	16.9
50°-60°	110.1	12.7
60°-70°	72.2	8.3
70°-80°	36.8	4.2
80°-90°	9.3	1.1
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	37.4
0°-40°	491.3	56.7
0°-60°	747.6	86.3
0°-90°	865.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	865.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	466	466	466	466	466	
5°	466	463	458	461	460	44
15°	444	438	421	409	398	125
25°	403	386	348	318	309	186
35°	349	319	261	217	202	218
45°	286	244	173	135	124	221
55°	218	166	101	76	75	194
65°	147	92	54	48	46	145
75°	78	36	27	24	24	82
85°	17	7	7	6	6	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	465.6	465.6	465.6	465.6	465.6
2.5°	468.0	466.0	461.3	465.2	464.4
5°	465.6	463.2	458.1	460.9	459.7
7.5°	462.8	459.7	452.6	453.8	451.4
10°	457.7	453.8	444.3	441.9	438.4
12.5°	451.4	447.1	433.2	427.7	422.2
15°	443.9	437.6	420.6	408.8	397.7
17.5°	435.2	427.3	404.8	388.3	380.0
20°	425.4	415.1	385.9	366.6	357.9
22.5°	414.7	401.7	368.1	343.7	333.4
25°	402.9	386.3	347.6	318.4	309.0
27.5°	390.2	371.3	327.9	294.4	280.5
30°	377.6	353.9	305.0	267.5	254.1
32.5°	363.4	336.6	283.3	241.9	226.9
35°	348.8	318.8	260.8	217.0	202.0
37.5°	333.4	301.1	238.3	194.1	179.5
40°	318.4	281.7	216.2	172.0	159.0
42.5°	303.0	262.4	194.1	152.7	141.7
45°	285.7	244.2	173.2	134.6	124.3
47.5°	269.5	224.5	154.3	118.4	108.9
50°	251.7	205.2	134.2	103.4	93.9
52.5°	235.2	185.5	117.6	87.6	81.7
55°	217.8	165.7	101.0	76.5	74.6
57.5°	199.3	146.4	86.4	68.7	66.3
60°	182.7	127.8	71.4	61.6	59.6
62.5°	164.1	109.3	61.9	54.8	52.9
65°	146.8	91.5	54.1	47.7	46.2
67.5°	129.4	75.4	46.6	41.4	39.9
70°	112.5	60.0	39.5	35.5	34.3
72.5°	93.9	45.4	33.1	30.0	29.2
75°	77.7	35.5	26.8	24.5	23.7
77.5°	60.8	26.8	20.9	19.3	18.9
80°	44.6	19.3	15.8	14.6	14.2
82.5°	30.4	13.0	11.0	10.3	9.9
85°	17.4	7.1	6.7	5.9	5.9
87.5°	6.7	2.8	2.4	2.4	2.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)