

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: P242187

Luminaire Tested: **S121RDR-S490D830-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242187
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-S490D830-X4F0-XX-UDD-F-W
Description: DEFINE 1 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1513.5 lumens
Efficiency: N/A
Efficacy: 80.5 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

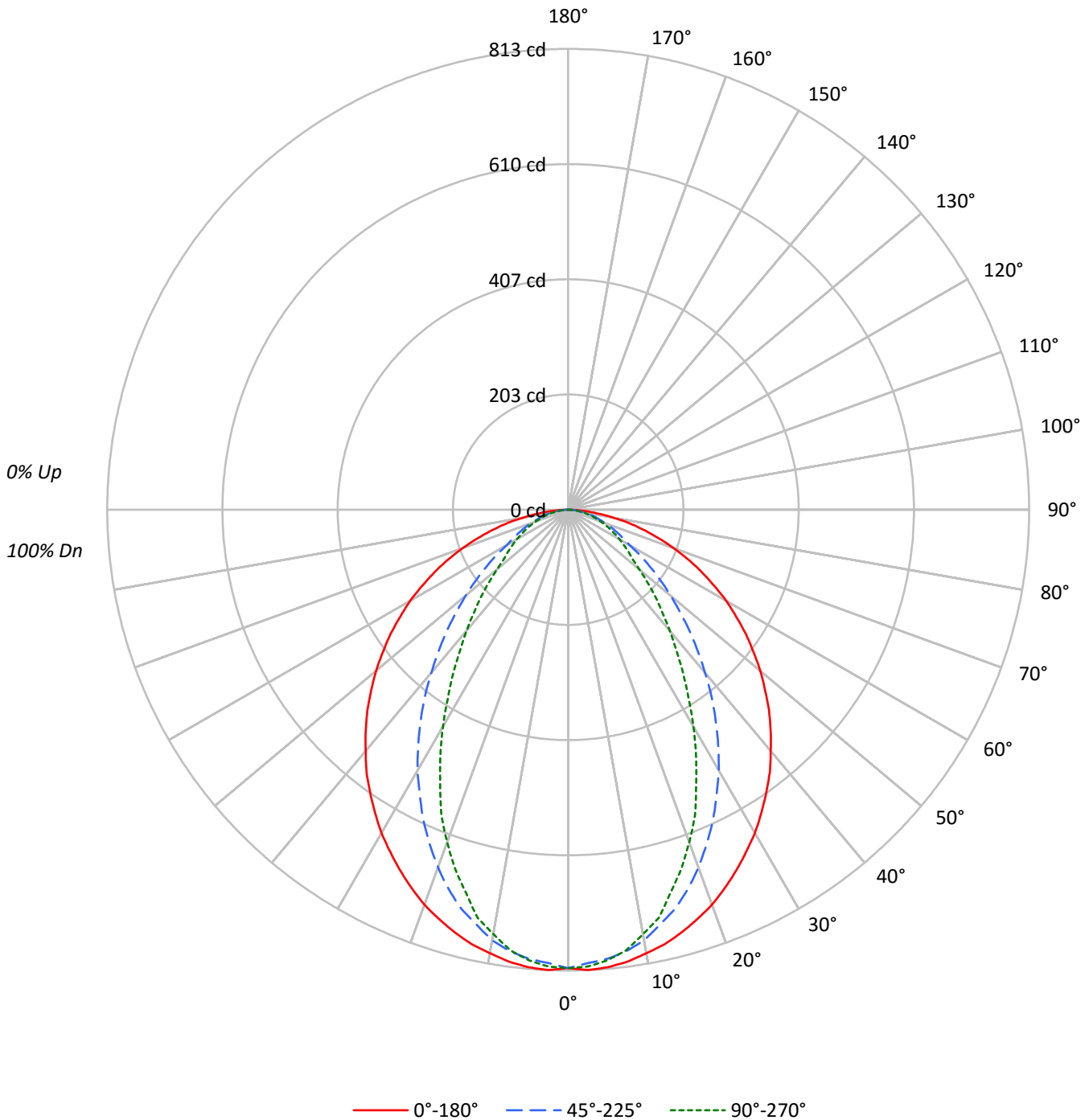
Input Watts (W): 18.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	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°	23962	23962	23962
5°	24095	23652	23732
10°	23904	23212	22866
15°	23687	22359	21423
20°	23387	21170	19676
25°	22944	19760	17458
30°	22530	18178	15119
35°	22032	16400	12805
40°	21490	14528	10784
45°	20985	12676	9101
50°	20402	10856	7518
55°	19754	9159	6710
60°	19087	7419	6216
65°	18172	6688	5742
70°	17118	6038	5276
75°	15730	5507	4877
80°	13736	4846	4385
85°	11287	4148	3672



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.7	5.0
10°-20°	205.9	13.6
20°-30°	281.1	18.6
30°-40°	292.1	19.3
40°-50°	255.2	16.9
50°-60°	192.9	12.7
60°-70°	127.4	8.4
70°-80°	65.7	4.3
80°-90°	17.4	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°	562.7	37.2
0°-40°	854.8	56.5
0°-60°	1303.0	86.1
0°-90°	1513.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1513.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	809	809	809	809	809	
5°	810	805	795	801	798	77
15°	772	761	729	710	698	218
25°	702	674	604	554	534	323
35°	609	555	453	379	354	381
45°	501	426	302	235	217	386
55°	382	290	177	135	130	342
65°	259	162	95	84	82	257
75°	137	64	48	44	43	146
85°	33	14	12	12	11	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	808.7	808.7	808.7	808.7	808.7
2.5°	812.8	808.7	800.6	808.1	806.7
5°	810.1	805.4	795.2	801.3	797.9
7.5°	804.0	798.6	785.7	787.8	783.7
10°	794.5	788.4	771.5	768.1	760.0
12.5°	785.1	775.6	749.2	742.4	737.7
15°	772.2	760.7	728.9	709.9	698.4
17.5°	757.3	741.7	701.8	676.1	663.9
20°	741.7	721.4	671.4	636.2	624.0
22.5°	722.1	698.4	638.2	596.2	584.1
25°	701.8	674.1	604.4	554.3	534.0
27.5°	680.2	646.3	566.5	510.3	488.0
30°	658.5	617.2	531.3	463.6	441.9
32.5°	634.1	588.1	492.0	421.0	395.2
35°	609.1	555.0	453.4	379.0	354.0
37.5°	584.1	524.5	414.9	339.7	313.3
40°	555.6	492.7	375.6	298.5	278.8
42.5°	528.6	459.5	338.4	266.6	245.7
45°	500.8	425.7	302.5	234.8	217.2
47.5°	471.0	392.5	267.3	207.1	189.5
50°	442.6	357.3	235.5	180.0	163.1
52.5°	411.5	324.2	205.7	152.3	142.8
55°	382.4	290.3	177.3	134.7	129.9
57.5°	351.2	257.8	150.9	121.8	116.4
60°	322.1	225.4	125.2	108.3	104.9
62.5°	289.7	194.2	109.0	96.1	92.7
65°	259.2	161.7	95.4	83.9	81.9
67.5°	228.7	134.0	82.6	73.1	71.1
70°	197.6	106.3	69.7	62.9	60.9
72.5°	167.2	81.2	58.2	52.8	51.4
75°	137.4	63.6	48.1	44.0	42.6
77.5°	111.0	48.7	37.9	34.5	33.8
80°	80.5	35.9	28.4	26.4	25.7
82.5°	54.8	24.4	20.3	18.9	17.6
85°	33.2	13.5	12.2	11.5	10.8
87.5°	13.5	6.1	5.4	4.7	4.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)