

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: P242196

Luminaire Tested: **S121RDR-S490D840-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242196
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-S490D840-X4F0-XX-UDD-F-W
Description: DEFINE 1 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1621.7 lumens
Efficiency: N/A
Efficacy: 86.3 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

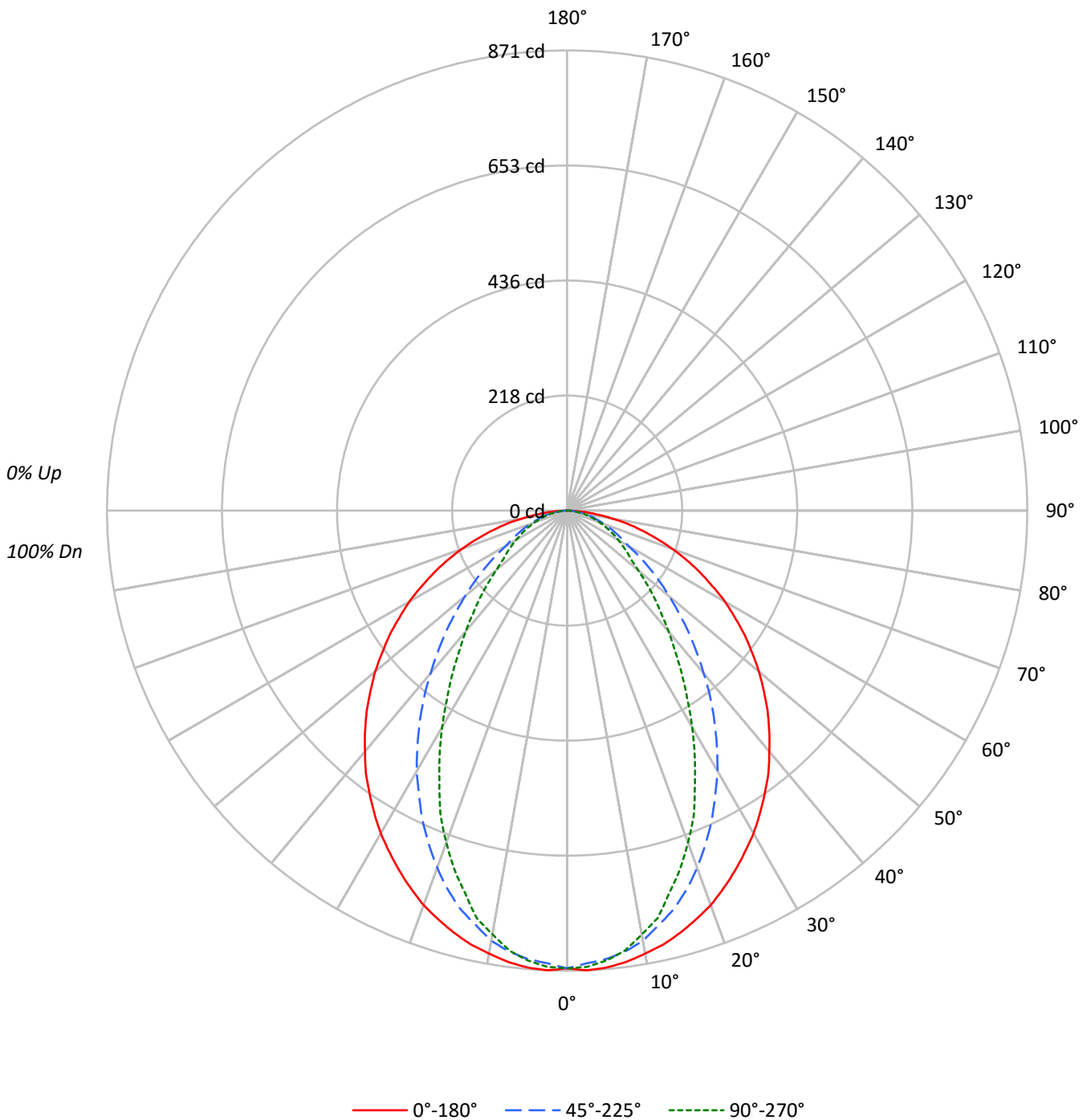
Input Watts (W): 18.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	25674	25674	25674
5°	25817	25341	25427
10°	25613	24870	24500
15°	25377	23954	22954
20°	25058	22680	21082
25°	24582	21169	18704
30°	24138	19474	16200
35°	23605	17572	13716
40°	23026	15564	11553
45°	22485	13581	9755
50°	21859	11630	8058
55°	21164	9815	7191
60°	20456	7947	6661
65°	19470	7165	6149
70°	18340	6471	5657
75°	16852	5896	5232
80°	14725	5204	4709
85°	12069	4454	3944



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.1	5.0
10°-20°	220.6	13.6
20°-30°	301.1	18.6
30°-40°	313.0	19.3
40°-50°	273.5	16.9
50°-60°	206.7	12.7
60°-70°	136.5	8.4
70°-80°	70.4	4.3
80°-90°	18.7	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°	602.9	37.2
0°-40°	915.9	56.5
0°-60°	1396.1	86.1
0°-90°	1621.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1621.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	866	866	866	866	866	
5°	868	863	852	858	855	82
15°	827	815	781	761	748	233
25°	752	722	648	594	572	346
35°	653	595	486	406	379	408
45°	537	456	324	252	233	413
55°	410	311	190	144	139	366
65°	278	173	102	90	88	275
75°	147	68	52	47	46	157
85°	36	14	13	12	12	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	866.5	866.5	866.5	866.5	866.5
2.5°	870.9	866.5	857.8	865.8	864.3
5°	868.0	862.9	852.0	858.5	854.9
7.5°	861.4	855.6	841.9	844.0	839.7
10°	851.3	844.8	826.6	823.0	814.3
12.5°	841.1	831.0	802.7	795.4	790.4
15°	827.3	815.0	780.9	760.6	748.3
17.5°	811.4	794.7	751.9	724.4	711.3
20°	794.7	773.0	719.3	681.6	668.6
22.5°	773.7	748.3	683.8	638.8	625.8
25°	751.9	722.2	647.5	593.9	572.1
27.5°	728.7	692.5	606.9	546.7	522.8
30°	705.5	661.3	569.2	496.7	473.5
32.5°	679.4	630.1	527.2	451.0	423.5
35°	652.6	594.6	485.8	406.1	379.2
37.5°	625.8	562.0	444.5	364.0	335.7
40°	595.3	527.9	402.4	319.8	298.7
42.5°	566.3	492.3	362.6	285.7	263.2
45°	536.6	456.1	324.1	251.6	232.8
47.5°	504.7	420.6	286.4	221.9	203.0
50°	474.2	382.9	252.3	192.9	174.8
52.5°	440.9	347.3	220.4	163.1	153.0
55°	409.7	311.1	190.0	144.3	139.2
57.5°	376.3	276.3	161.7	130.5	124.7
60°	345.2	241.5	134.1	116.0	112.4
62.5°	310.3	208.1	116.7	103.0	99.3
65°	277.7	173.3	102.2	89.9	87.7
67.5°	245.1	143.6	88.5	78.3	76.1
70°	211.7	113.8	74.7	67.4	65.3
72.5°	179.1	87.0	62.4	56.6	55.1
75°	147.2	68.2	51.5	47.1	45.7
77.5°	118.9	52.2	40.6	37.0	36.3
80°	86.3	38.4	30.5	28.3	27.6
82.5°	58.7	26.1	21.8	20.3	18.9
85°	35.5	14.5	13.1	12.3	11.6
87.5°	14.5	6.5	5.8	5.1	5.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)