

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: P231715

Luminaire Tested: **S121-RDR-1-27-X-0048-1-U-DD-1-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231715
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33908)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121-RDR-1-27-X-0048-1-U-DD-1-W
Description: DEFINE 1 LED LINEAR REGRESSED DIRECT RECESSED LED LUMINAIRE WITH FLUSH LENS.
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1654.9 lumens
Efficiency: N/A
Efficacy: 59.3 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 0.93 / 1.1
Luminous Opening: Rectangular (W 0.1' x L: 3.92' x H: 0')
CIE Type: Direct

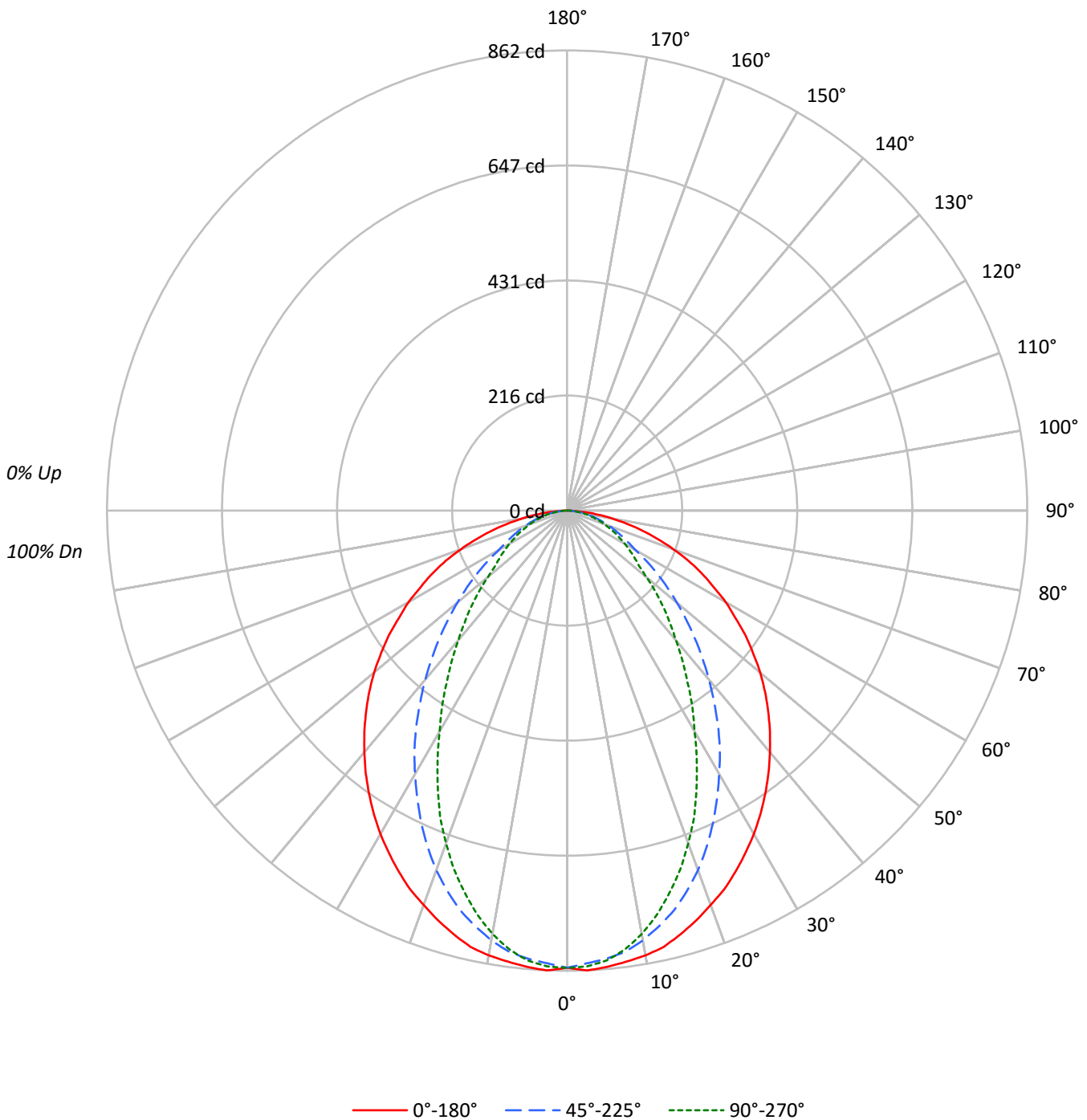
Input Watts (W): 27.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	107	104	100	97	99	97	94	96	93	91	92	90	88					86				
2	101	94	88	83	99	92	86	82	89	84	80	85	81	78	82	79	76					74				
3	93	84	76	70	91	82	75	70	79	73	69	77	72	67	74	70	66					64				
4	86	75	67	61	84	74	66	61	71	65	60	69	64	59	67	62	58					56				
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52					50				
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46					44				
7	69	57	48	43	67	56	48	42	54	47	42	53	47	42	52	46	42					40				
8	65	52	44	39	63	51	44	38	50	43	38	49	43	38	48	42	38					36				
9	61	48	40	35	59	47	40	35	46	40	35	45	39	35	44	39	35					33				
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32					30				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	23943	23943	23943
5°	24082	23652	23748
10°	24022	23205	22867
15°	23780	22431	21450
20°	23385	21317	19728
25°	23018	19931	17682
30°	22582	18395	15412
35°	22082	16812	13427
40°	21569	15102	11573
45°	21054	13376	10058
50°	20542	11691	8407
55°	19877	10041	7521
60°	19201	8247	6967
65°	18397	7462	6509
70°	17329	6858	6033
75°	15846	6233	5498
80°	13782	5458	5055
85°	10874	4619	4363



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.2	4.8
10°-20°	218.9	13.2
20°-30°	300.4	18.2
30°-40°	316.3	19.1
40°-50°	281.8	17.0
50°-60°	216.6	13.1
60°-70°	145.0	8.8
70°-80°	75.8	4.6
80°-90°	19.9	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°	599.5	36.2
0°-40°	915.9	55.3
0°-60°	1414.2	85.5
0°-90°	1654.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1654.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	856	856	856	856	856	
5°	858	853	843	849	846	81
15°	822	811	775	756	741	232
25°	746	715	646	597	573	344
35°	647	594	493	419	393	405
45°	532	457	338	272	254	411
55°	408	318	206	159	154	364
65°	278	182	113	101	98	275
75°	147	75	58	53	51	155
85°	34	16	14	14	14	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	856.4	856.4	856.4	856.4	856.4
2.5°	862.3	857.2	848.8	856.4	854.7
5°	858.1	853.0	842.8	848.8	846.2
7.5°	852.1	845.4	833.5	835.2	829.3
10°	846.2	836.9	817.4	813.1	805.5
12.5°	836.9	826.7	797.0	785.2	775.8
15°	821.6	810.6	775.0	755.5	741.1
17.5°	804.7	787.7	747.0	719.9	704.6
20°	786.0	765.7	716.5	681.7	663.1
22.5°	768.2	741.1	682.6	641.0	621.5
25°	746.2	714.8	646.1	596.9	573.2
27.5°	723.3	685.1	607.9	552.8	525.7
30°	699.5	655.4	569.8	506.2	477.4
32.5°	674.1	624.1	532.5	462.1	436.7
35°	647.0	593.5	492.6	418.9	393.4
37.5°	619.8	558.8	451.9	378.2	355.3
40°	591.0	525.7	413.8	340.0	317.1
42.5°	562.2	490.9	374.8	305.2	284.0
45°	532.5	457.0	338.3	272.2	254.4
47.5°	502.8	422.3	302.7	240.8	223.8
50°	472.3	387.5	268.8	211.1	193.3
52.5°	439.2	352.7	236.6	181.5	168.7
55°	407.8	318.0	206.0	159.4	154.3
57.5°	373.1	283.2	176.4	144.1	139.1
60°	343.4	248.4	147.5	129.7	124.6
62.5°	308.6	214.5	128.9	115.3	111.1
65°	278.1	182.3	112.8	100.9	98.4
67.5°	245.9	150.9	97.5	88.2	84.8
70°	212.0	121.3	83.9	75.5	73.8
72.5°	178.9	94.1	69.5	63.6	62.7
75°	146.7	74.6	57.7	52.6	50.9
77.5°	115.3	56.8	45.8	42.4	41.5
80°	85.6	41.5	33.9	32.2	31.4
82.5°	58.5	28.0	23.7	22.0	22.0
85°	33.9	16.1	14.4	13.6	13.6
87.5°	12.7	6.8	5.9	5.9	5.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)