

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: P231713

Luminaire Tested: **S121-RDR-LO-35-X-0048-1-U-DD-1-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231713
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-LO-35-X-0048-1-U-DD-1-W
Description: DEFINE 1 LED LINEAR REGRESSED DIRECT RECESSED LED LUMINAIRE WITH FLUSH LENS.
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1055.9 lumens
Efficiency: N/A
Efficacy: 77.6 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

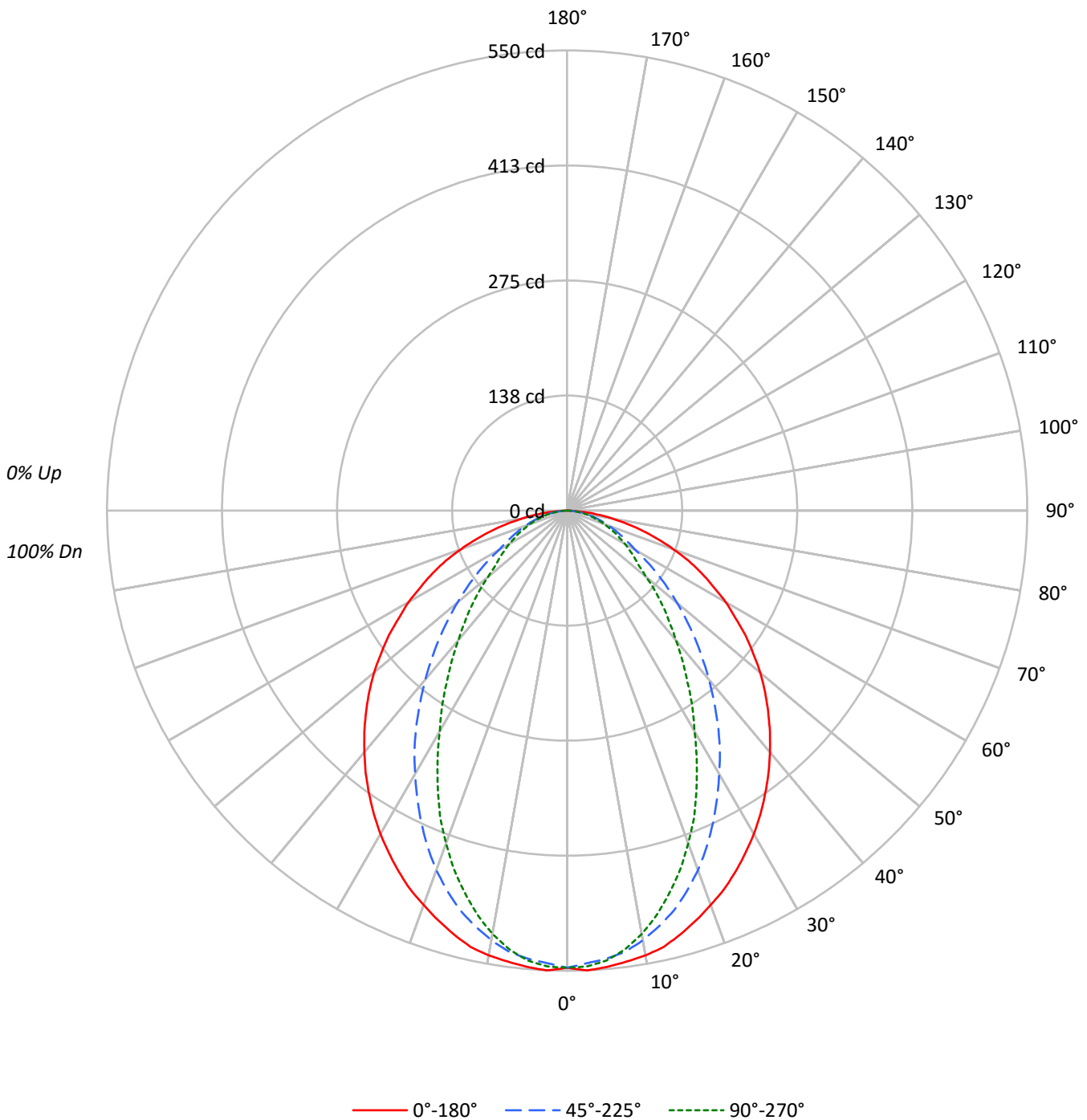
Input Watts (W): 13.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15276	15276	15276
5°	15365	15090	15152
10°	15327	14805	14589
15°	15172	14313	13685
20°	14920	13599	12588
25°	14687	12715	11281
30°	14408	11735	9833
35°	14089	10727	8567
40°	13763	9635	7383
45°	13431	8536	6417
50°	13105	7459	5363
55°	12683	6410	4801
60°	12251	5262	4445
65°	11736	4763	4154
70°	11052	4381	3850
75°	10111	3975	3511
80°	8791	3478	3220
85°	6929	2951	2791



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.2	4.8
10°-20°	139.7	13.2
20°-30°	191.7	18.2
30°-40°	201.8	19.1
40°-50°	179.8	17.0
50°-60°	138.2	13.1
60°-70°	92.5	8.8
70°-80°	48.3	4.6
80°-90°	12.7	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°	382.5	36.2
0°-40°	584.3	55.3
0°-60°	902.3	85.5
0°-90°	1055.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1055.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	546	546	546	546	546	
5°	548	544	538	542	540	52
15°	524	517	494	482	473	148
25°	476	456	412	381	366	219
35°	413	379	314	267	251	258
45°	340	292	216	174	162	262
55°	260	203	132	102	98	232
65°	177	116	72	64	63	175
75°	94	48	37	34	32	99
85°	22	10	9	9	9	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	546.4	546.4	546.4	546.4	546.4
2.5°	550.2	546.9	541.5	546.4	545.3
5°	547.5	544.2	537.7	541.5	539.9
7.5°	543.7	539.4	531.8	532.9	529.1
10°	539.9	534.0	521.5	518.8	513.9
12.5°	534.0	527.5	508.5	501.0	495.0
15°	524.2	517.2	494.5	482.0	472.8
17.5°	513.4	502.6	476.6	459.3	449.6
20°	501.5	488.5	457.1	435.0	423.1
22.5°	490.1	472.8	435.5	409.0	396.5
25°	476.1	456.1	412.2	380.9	365.7
27.5°	461.5	437.1	387.9	352.7	335.4
30°	446.3	418.2	363.5	323.0	304.6
32.5°	430.1	398.2	339.7	294.8	278.6
35°	412.8	378.7	314.3	267.2	251.0
37.5°	395.5	356.5	288.3	241.3	226.7
40°	377.1	335.4	264.0	216.9	202.3
42.5°	358.7	313.2	239.1	194.8	181.2
45°	339.7	291.6	215.9	173.7	162.3
47.5°	320.8	269.4	193.1	153.6	142.8
50°	301.3	247.2	171.5	134.7	123.3
52.5°	280.2	225.1	150.9	115.8	107.7
55°	260.2	202.9	131.5	101.7	98.5
57.5°	238.0	180.7	112.5	92.0	88.7
60°	219.1	158.5	94.1	82.8	79.5
62.5°	196.9	136.9	82.2	73.6	70.9
65°	177.4	116.3	72.0	64.4	62.8
67.5°	156.9	96.3	62.2	56.3	54.1
70°	135.2	77.4	53.6	48.1	47.1
72.5°	114.1	60.0	44.4	40.6	40.0
75°	93.6	47.6	36.8	33.5	32.5
77.5°	73.6	36.2	29.2	27.0	26.5
80°	54.6	26.5	21.6	20.6	20.0
82.5°	37.3	17.9	15.1	14.1	14.1
85°	21.6	10.3	9.2	8.7	8.7
87.5°	8.1	4.3	3.8	3.8	3.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)