

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: P231744

Luminaire Tested: **S123-RDR-2-30-X-0048-1-U-DD-1-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231744
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33914)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123-RDR-2-30-X-0048-1-U-DD-1-W
Description: DEFINE 3 LED LINEAR REGRESSED DIRECT RECESSED LED LUMINAIRE WITH FLUSH LENS.
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3482.9 lumens
Efficiency: N/A
Efficacy: 81.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.07 / 1.23
Luminous Opening: Rectangular (W 0.22' x L: 3.92' x H: 0')
CIE Type: Direct

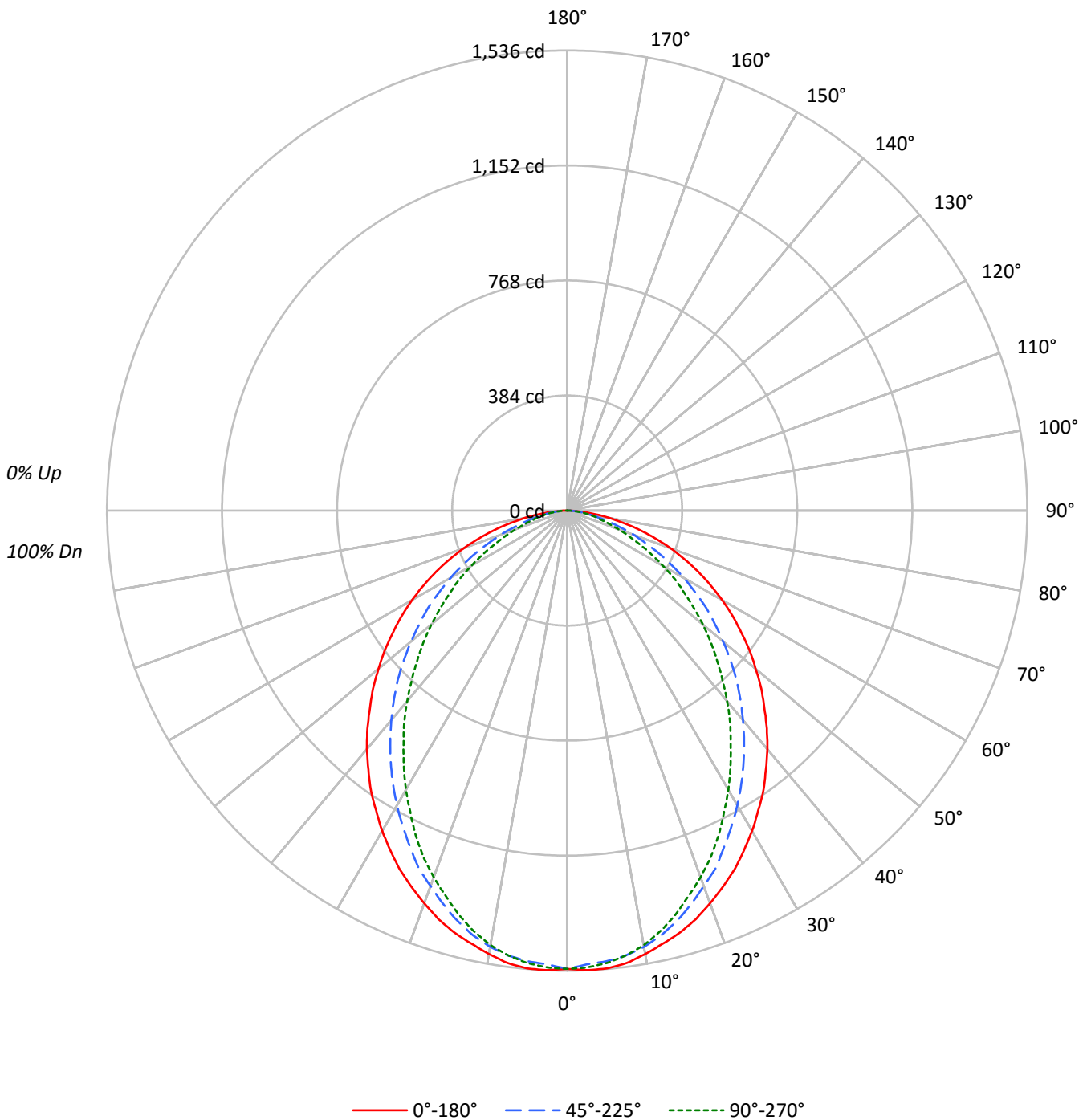
Input Watts (W): 42.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	105	101	98	107	103	99	96	99	96	93	95	93	90	91	89	88	86					86			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73					73			
3	92	82	74	68	90	81	73	68	78	72	67	75	70	65	72	68	64	62					62			
4	85	73	65	59	82	72	64	58	70	63	57	67	61	57	65	60	56	54					54			
5	78	66	57	51	76	65	57	51	63	56	50	61	55	50	59	54	49	47					47			
6	72	60	51	45	71	59	51	45	57	50	44	55	49	44	54	48	44	42					42			
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	43	39	37					37			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	35	45	40	35	33					33			
9	59	46	38	33	57	45	38	32	44	37	32	43	37	32	42	36	32	30					30			
10	55	42	35	30	54	42	35	30	41	34	29	40	34	29	39	33	29	28					28			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	18826	18826	18826
5°	18954	18657	18732
10°	18779	18481	18406
15°	18574	18060	17793
20°	18270	17466	17055
25°	17947	16829	16240
30°	17548	16144	15294
35°	17158	15427	14302
40°	16712	14668	13346
45°	16204	13912	12323
50°	15733	13010	11320
55°	15224	12173	10214
60°	14700	11089	9100
65°	14037	9852	7802
70°	13195	8510	6571
75°	11959	6833	5478
80°	10291	5514	5089
85°	8035	4646	4434



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.1	4.1
10°-20°	401.1	11.5
20°-30°	576.3	16.5
30°-40°	648.7	18.6
40°-50°	623.8	17.9
50°-60°	517.1	14.8
60°-70°	352.8	10.1
70°-80°	175.3	5.0
80°-90°	43.5	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°	1121.5	32.2
0°-40°	1770.2	50.8
0°-60°	2911.2	83.6
0°-90°	3482.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3482.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1530	1530	1530	1530	1530	
5°	1534	1528	1510	1521	1516	145
15°	1458	1444	1417	1413	1396	411
25°	1322	1299	1239	1214	1196	608
35°	1142	1099	1027	977	952	713
45°	931	882	799	733	708	719
55°	710	654	567	500	476	636
65°	482	422	338	286	268	477
75°	252	202	144	120	115	266
85°	57	37	33	33	31	68
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1529.7	1529.7	1529.7	1529.7	1529.7
2.5°	1535.7	1529.7	1516.2	1529.7	1526.7
5°	1534.2	1528.2	1510.2	1520.7	1516.2
7.5°	1523.7	1516.2	1498.2	1504.2	1498.2
10°	1502.7	1498.2	1478.8	1481.8	1472.8
12.5°	1480.3	1472.8	1451.8	1451.8	1438.4
15°	1457.8	1444.4	1417.4	1412.9	1396.5
17.5°	1429.4	1420.4	1377.0	1369.5	1348.6
20°	1395.0	1378.5	1333.6	1320.1	1302.2
22.5°	1359.0	1339.6	1293.2	1270.7	1252.8
25°	1321.6	1299.2	1239.3	1213.9	1195.9
27.5°	1278.2	1252.8	1188.4	1158.5	1134.5
30°	1234.8	1203.4	1136.0	1100.1	1076.2
32.5°	1186.9	1154.0	1082.1	1037.2	1014.8
35°	1142.0	1098.6	1026.8	977.4	951.9
37.5°	1089.6	1046.2	969.9	914.5	893.6
40°	1040.2	993.8	913.0	854.6	830.7
42.5°	986.4	937.0	856.1	794.8	767.8
45°	931.0	881.6	799.3	733.4	708.0
47.5°	878.6	826.2	739.4	675.0	651.1
50°	821.7	770.8	679.5	615.2	591.2
52.5°	767.8	711.0	621.2	556.8	532.8
55°	709.5	654.1	567.3	499.9	476.0
57.5°	655.6	597.2	505.9	443.0	426.6
60°	597.2	537.3	450.5	390.7	369.7
62.5°	540.3	477.5	392.1	336.8	318.8
65°	482.0	422.1	338.3	285.9	267.9
67.5°	425.1	366.7	282.9	239.5	223.0
70°	366.7	309.8	236.5	194.6	182.6
72.5°	308.3	255.9	187.1	154.2	145.2
75°	251.5	202.1	143.7	119.7	115.2
77.5°	194.6	154.2	106.3	94.3	92.8
80°	145.2	106.3	77.8	71.8	71.8
82.5°	97.3	65.9	53.9	52.4	50.9
85°	56.9	37.4	32.9	32.9	31.4
87.5°	23.9	15.0	15.0	15.0	13.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)