

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: P242705

Luminaire Tested: **S124RDR-S1020D830-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242705
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-26)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124RDR-S1020D830-X4F0-XX-UDD-F-W
Description: DEFINE 4 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: 3627.2 lumens
Efficiency: N/A
Efficacy: 104.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')
CIE Type: Direct

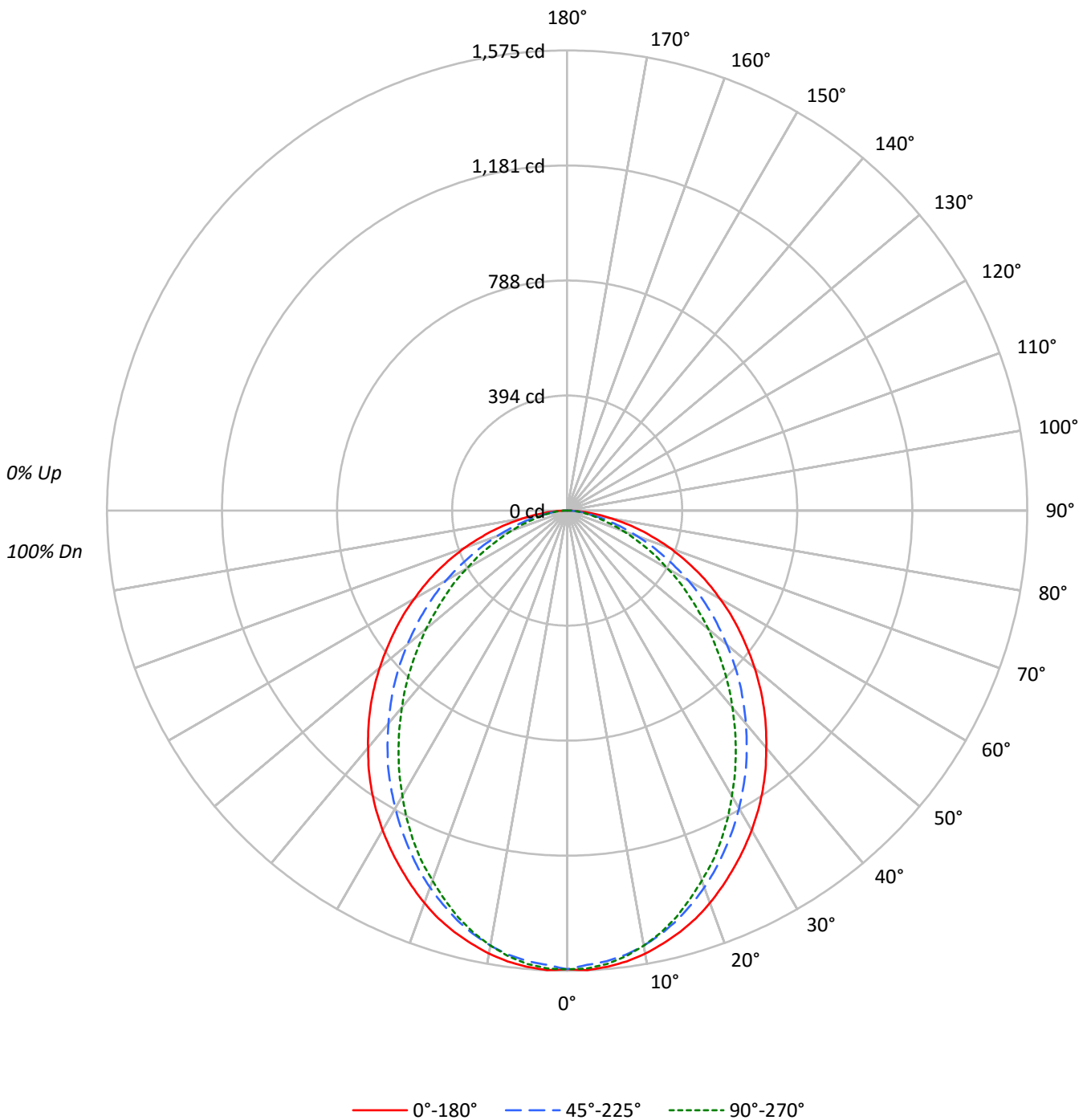
Input Watts (W): 34.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87					85				
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	74					72				
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64					62				
4	84	73	65	58	82	72	64	58	69	62	57	67	61	56	65	60	56					54				
5	78	66	57	51	76	65	56	50	62	55	50	61	54	49	59	53	49					47				
6	72	59	51	45	70	58	50	44	57	49	44	55	49	44	53	48	43					41				
7	67	54	46	40	65	53	45	40	52	45	39	50	44	39	49	43	39					37				
8	63	50	41	36	61	49	41	36	48	40	35	46	40	35	45	39	35					33				
9	59	46	38	32	57	45	37	32	44	37	32	43	36	32	42	36	32					30				
10	55	42	35	29	54	42	34	29	41	34	29	40	33	29	39	33	29					27				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13954	13954	13954
5°	13986	13813	13900
10°	13897	13648	13648
15°	13738	13362	13263
20°	13518	12985	12746
25°	13239	12543	12224
30°	12967	12078	11573
35°	12665	11596	10918
40°	12301	11047	10209
45°	11967	10502	9488
50°	11586	9874	8726
55°	11177	9221	7897
60°	10727	8505	7052
65°	10315	7610	6219
70°	9715	6622	5278
75°	8957	5492	4293
80°	7817	4182	3936
85°	6619	3804	3559



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.6	4.1
10°-20°	411.6	11.3
20°-30°	594.2	16.4
30°-40°	673.4	18.6
40°-50°	650.2	17.9
50°-60°	540.6	14.9
60°-70°	373.1	10.3
70°-80°	188.5	5.2
80°-90°	47.9	1.3
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°	1153.4	31.8
0°-40°	1826.8	50.4
0°-60°	3017.6	83.2
0°-90°	3627.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3627.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1570	1570	1570	1570	1570	
5°	1567	1563	1548	1560	1558	149
15°	1493	1482	1452	1450	1441	421
25°	1350	1328	1279	1258	1246	622
35°	1167	1129	1069	1028	1006	729
45°	952	908	835	776	755	734
55°	721	673	595	532	510	645
65°	490	439	362	310	296	484
75°	261	216	160	132	125	275
85°	65	41	37	35	35	75
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1569.8	1569.8	1569.8	1569.8	1569.8
2.5°	1574.6	1569.8	1556.6	1569.8	1568.6
5°	1567.4	1562.6	1548.1	1560.2	1557.8
7.5°	1556.6	1551.7	1533.7	1542.1	1538.5
10°	1539.7	1533.7	1512.1	1516.9	1512.1
12.5°	1518.1	1510.9	1484.4	1486.8	1479.6
15°	1492.9	1482.0	1452.0	1449.6	1441.2
17.5°	1464.0	1448.4	1413.5	1407.5	1395.5
20°	1429.1	1413.5	1372.7	1363.0	1347.4
22.5°	1390.7	1372.7	1328.2	1312.6	1300.5
25°	1349.8	1328.2	1278.9	1258.5	1246.4
27.5°	1307.7	1281.3	1229.6	1205.6	1188.8
30°	1263.3	1233.2	1176.7	1146.7	1127.5
32.5°	1216.4	1181.5	1122.6	1086.6	1068.6
35°	1167.1	1128.7	1068.6	1027.7	1006.1
37.5°	1115.4	1075.8	1009.7	965.2	943.5
40°	1060.1	1020.5	952.0	901.5	879.8
42.5°	1007.3	965.2	893.1	841.4	818.5
45°	952.0	907.5	835.4	776.5	754.8
47.5°	895.5	849.8	775.3	714.0	689.9
50°	837.8	790.9	714.0	653.9	631.0
52.5°	778.9	733.2	653.9	592.6	568.5
55°	721.2	673.1	595.0	532.5	509.6
57.5°	664.7	614.2	537.3	473.6	456.7
60°	603.4	555.3	478.4	415.9	396.7
62.5°	548.1	497.6	418.3	361.8	347.4
65°	490.4	438.7	361.8	310.1	295.7
67.5°	430.3	381.0	308.9	263.2	246.4
70°	373.8	323.3	254.8	215.2	203.1
72.5°	313.7	269.2	205.5	173.1	162.3
75°	260.8	216.4	159.9	132.2	125.0
77.5°	205.5	167.1	119.0	99.8	97.4
80°	152.7	117.8	81.7	78.1	76.9
82.5°	107.0	75.7	58.9	56.5	55.3
85°	64.9	40.9	37.3	34.9	34.9
87.5°	27.6	18.0	16.8	15.6	16.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)